



SANDY SPRINGS

GEORGIA

P&Z STAFF REPORT

Planning Commission Meeting, November 17, 2021

Case: **RZ21-0003 – 5920 Roswell Road**
Staff Contact: Matthew Anspach (MAnspach@SandySpringsga.gov)
Report Date: November 10, 2021

REQUEST

Request for a Zoning Map Amendment (Rezoning) from CS-3 (City Springs, 3 stories maximum height) to CS-6 (City Springs, 6 stories maximum height).

APPLICANT

Property Owner: Jamestown Parkside Shops LLP, a Delaware limited partnership	Petitioner: Jamestown Parkside Shops LLP, a Delaware limited partnership (contact: Eric Hines)	Representatives: Nathan (Pete) V. Hendrix III
--	--	--

SUMMARY

The Applicant requests a Zoning Map Amendment (Rezoning) of 5920 Roswell Road from the CS-3 District to the CS-6 District. The Applicant proposes in concept to redevelop the western portion of the property delineated in the provided legal description with mixed use development containing movie theatre, restaurants, office and multi-family uses. The concept also includes renovation to existing structures.

RECOMMENDATION

Department of Community Development

Staff recommends **Approval of Zoning Map Amendment (Rezoning) RZ21-0003.**

MATERIALS SUBMITTED AND REVIEWED**Materials:**

1. "RZ21-0003_Parkside Application_10-18_Redacted", received October 18, 2021

Plans:

---Within Application---

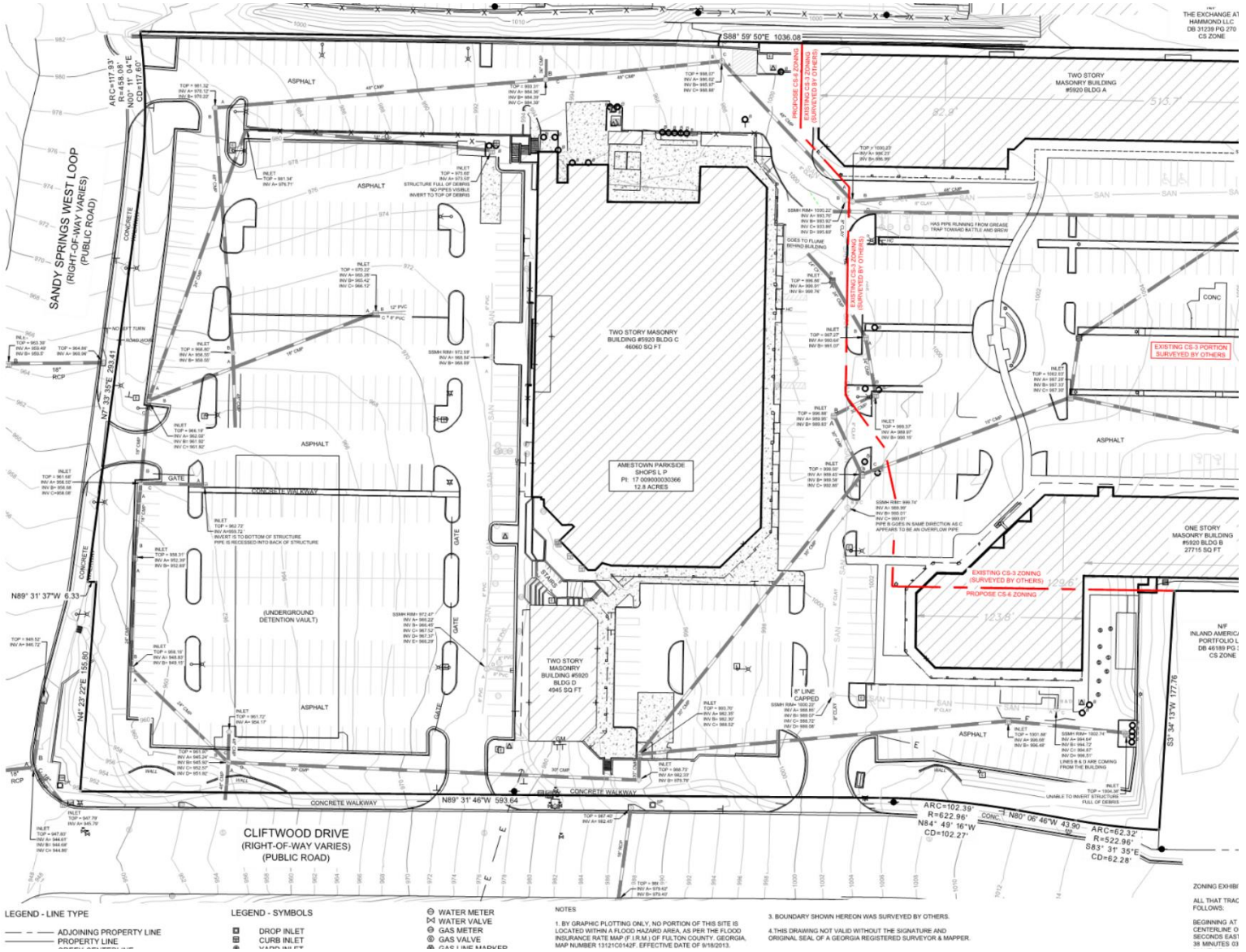
PROPERTY INFORMATION

Location:	5920 Roswell Road (Parcel # 17 009000030366)
Council District:	3 – Chris Burnett
Road frontage:	Approximately 567 feet of frontage on Sandy Springs Circle; Approximately 802 feet on Cliftwood Drive
Acreage:	Approximately 7.95 acres
Current Zoning: Existing Land Use:	CS-3 (City Springs, 3 stories maximum height) Movie Theater, Retail, Restaurants
Character Area:	City Springs

PROCESS

Initial Community Meeting (CMI): August 26, 2021	Second Community Meeting (CMII): October 4, 2021	Planning Commission Hearing: November 17, 2021	Mayor and City Council Hearing: December 21, 2021
---	---	---	--

EXISTING CONDITIONS SURVEY (received September 7, 2021)
(full size Existing Conditions Survey in Package)



PROPOSED DEVELOPMENT

5920 Roswell Road is currently in the CS-3 District but the corresponding City Springs Character Area. Thus, no Comprehensive Plan Character Area Map Amendment is required prior to a Zoning Map Amendment (Rezoning) application.

The 7.95-acre subject property is currently developed with various retail, restaurant, and personal service businesses. A movie theater is also a major tenant in the development. According to the Fulton County Tax Assessors, the improvements were built in 1987. The Applicant states that it is their intention, "to displace 64,080 square feet of the retail recently located on the Property with 51,400 square feet of redeveloped retail," (the reduction in square footage largely being the big box retail not needing the same space) "together with 63,000 square feet of office use, together with five (5) townhouses, a building containing 23 condominiums and 190 apartment units projected to consist of one (1) and two (2) bedroom units, with footages to be determined. The townhouses and condominiums are intended to be "for sale" with the apartment units being for rent. As better market conditions develop the Applicant will have a more accurate understanding of the total mix of townhouses, condominiums, and apartments to be developed. A part of the intended redevelopment of the Property is the continued operation of the movie theatre on the Property known as "The Springs".

Also to be noted on the Site Plan submitted with the Application is the 0.6 acre parcel known as the Common Green area and the 0.4 acre roof top of green space located above the movie theatre. Approximately 15% of the proposed 7.95 acres of area subject to redevelopment would be over three (3) stories tall. The Applicant sees this as an opportunity to further the connectivity to and throughout the City Springs district with improved pedestrian and automobile access."

It should be noted that the applicant has made clear at various points throughout the process that it is their intent to work with any current tenants in the area of the project that is to be displaced and remodeled--- in a best effort attempt to ensure that they remain tenants under any future conditions.

Also to be clear, a development plan--- including a site plan, renderings, elevations, or other documents related to a project proposal is not required for a Zoning Map Amendment. The City policy is to limit the number of conditions to those deemed essential to the proper development and use of the subject property, and to the safety and quality of life of the community. Thus, the goal with Rezoning is to consider the appropriateness of the proposed change in regards to the potential allowed uses within the proposed zoning district, rather than the specifics of a future development.

In the case of this Rezoning request, the change is only in the permitted height---from three (3) stories to six (6) stories---not affecting the permitted uses. Particular consideration should be primarily focused on physical impacts to view sheds and increased density to the immediate and neighboring areas, especially as it pertains to the vision of the Next Ten Comprehensive Plan and City Center Master Plan.

The images on the following pages show the existing conditions of and around the western portion of 5920 Roswell Road (more photos are available in the applicant application):



Northwestern entrance to property facing and from Sandy Springs Circle



View of the current movie theater / parking lot from northwest corner at Sandy Springs Circle entrance



Looking north from Cliftwood Drive, toward the movie theater



Looking south from subject property to neighboring properties off of Cliftwood Drive



View of service area to the left of the theater entrance, facing northeast



View of entrance off of Cliftwood Drive to eastern portion of subject property



View of entrance off of Cliftwood Drive to eastern portion of subject property

(All photographs by COSS Planning Staff, November 10, 2021---Or via Google Streetview)

EXISTING ZONING AND LAND USES OF PROPERTY IN THE VICINITY			
Location relative to subject property	Zoning / Land use	Address(es)	Land area (acres) (approximate)
Northwest / North	RT-3 / Single Unit Attached (Townhomes)	Reddington Place (Townhouse Community)	5.18
Northwest / North	CS-3 / Single Unit Attached (Townhomes)	Hammond Heights (Townhouse Community)	4.00
North / Northeast	CS-3 / Personal Service, Restaurant, Retail	5980 Roswell Road (Hammond Crossing)	12.56
East	CS-3 / Personal Service, Restaurant, Retail	5920 Roswell Road (remainder of Parkside Shops)	4.87
East / Southeast	CS-3 / Office, Personal Service, Retail, Restaurant	Various	Various
South	CS-6 / Office, Multi-Unit Residential, Retail, Restaurant	185 Cliftwood Drive	3.67
South / Southwest	CS-6 / Office	135-145 Cliftwood Drive	0.84
West	RE-2 / School, Public K-12	5920 Sandy Springs Circle	15.13
PROPOSED DEVELOPMENT			
--	CS-3 / Movie Theater, Restaurant, Retail	5920 Roswell Road	7.95

AERIAL IMAGE



ZONING MAP



CHARACTER AREA MAP



ZONING MAP AMENDMENT (REZONING) CONSIDERATIONS

Per Sec. 11.3.6.C. of the Development Code, the following list of approval criteria for a Zoning Map Amendment (Rezoning) provides guidance for making decisions on approval:

1. The Zoning Map Amendment corrects an error or meets the challenge of some changing condition, trend or fact.

Finding: The proposed Zoning Map Amendment does not correct an error. City Springs (CS-) is intended for and envisioned “as a unique, vibrant, and walkable district that serves as a civic/cultural center for Sandy Springs and a focal point for community activity and identity.” (pg. 118, *Next Ten*) Rezoning to a six (6) story zoning district would improve the feasibility of a portion of land within the City Center Master Plan that was considered to be a “lower (but potential for improvement)” parcel in the Near Term Mixed-use Redevelopment Feasibility map (Exhibit 17). The City Center Master Plan also envisioned a large greenspace or park and nearly identical grid network in the portion of the subject property as has been proposed by the applicant.

The greenspace as proposed, and development overall are a part of national trend toward mixed use with a significant open space, lifestyle, and gathering space component in addition to the various commercial, residential, and office anchors. Allowing flexibility in the height of some of the buildings that could be proposed on site does create more realistic opportunity for other portions of the site to be more recreational. The current allowance, three (3) stories, makes feasibility of a development to dedicate significant space to ground level recreation minimal.

2. The Zoning Map Amendment substantially conforms with the Comprehensive Plan.

Finding: The proposed Zoning Map Amendment substantially conforms with The Next Ten Comprehensive Plan. The Next Ten prioritizes economic development, green space realization; and particularly in the City Springs district---a conglomeration of compact, walkable, mixed-use spaces, interconnected centers, destinations, and unique places; further, a balanced community, consisting of increased supply of housing and housing choices, and ultimately an overall quality of place.

It is Staff’s view that Rezoning the property to increase “air rights” for what is the southwest City Center corner or gateway would increase the viability for a unique and vibrant recreational mixed use area---similar to what was anticipated in the City Center Master Plan. Thus, the proposed Rezoning is consistent with the vision of The Next Ten.

3. The Zoning Map Amendment substantially conforms with the stated purpose and intent of this Development Code.

Finding: The proposed Zoning Map Amendment conforms with the purpose and intent of the Development Code. The purpose of the Development Code is to guide the City’s future growth in alignment with the vision set forth by The Next Ten. The Development Code was created to “strive(s) for a balance between maintaining the quality of existing neighborhoods and creating urban, mixed-use, walkable, neighborhood-friendly development that contributes to a high quality public realm” all of which the proposed Rezoning would do.

4. *The Zoning Map Amendment will reinforce the existing or planned character of the area.*

Finding: The proposed Zoning Map Amendment will reinforce the existing and planned character of the area. Existing across the street to the south, are 3 parcels of CS-6. Additionally, in the City Center Master Plan, the property was envisioned to have a park and an improved street grid. As proposed both of these elements would be a reality.

5. *The subject property is appropriate for the development allowed in the proposed district and the use and development of adjacent properties.*

Finding: The subject property is appropriate for allowed uses in CS-, including office, retail, restaurants, townhouses, multi-unit residential. This area contains a mix of zoning districts and uses including CS-3, CS-6, Urban Neighborhoods, and an elementary school.

6. *There are substantial reasons why the property must not be used according to the existing zoning.*

Finding: The property would largely match the existing zoning requirements, partially; with the only difference being the height allowance. The current height allowance for this property would make feasibility unlikely if the plan for the City Center were to be executed to include development of an at-grade park or greenspace. As proposed, the park space exceeds the minimum required via the City's Outdoor Amenity Space ordinance. Allowing an increase in vertical development expands opportunities for the flexibility need to execute development of recreational outdoor spaces that are viable and legitimate community gathering spaces.

7. *There is a need for the proposed use at the proposed location.*

Finding: The Next Ten Comprehensive Plan advises to "Refer to the City Center Master Plan and 10-year LCI Update for more-detailed development plans, design guidelines and implementation strategies" for guidance on the City Springs district's development over time. Based on the vision for the City Center, outlined in the City Center Master Plan, which also includes the park or greenspace character, there is a need for the proposed use (City Springs) and requested height to help make feasible the significant dedication of non-revenue generating space at the proposed location. The Applicant requests a Zoning Map Amendment (Rezoning) from CS-3 to CS-6 which would increase viability through development flexibility.

The redevelopment of the site could serve as a significant step in the process to realizing the improved City Center street grid, as Development Code requirements would necessitate streetscape improvements along existing streets as well as including portions of the property to be improved as new streets. Based on review from the City Center Master Plan, the proposed Rezoning would help to provide the building height flexibility needed for a uniquely interconnected and compact, recreational and mixed-use development.

8. *The City and other service providers will be able to provide sufficient public facilities and services including schools, roads, recreation facilities, wastewater treatment, water supply and stormwater facilities, police, fire and emergency medical services, while maintaining sufficient levels of service to existing development.*

Finding: Staff does not anticipate substantial changes in the ability of the City and other service providers to provide sufficient public facilities and services and to maintain sufficient levels of service to existing development. A traffic study was preemptively provided by the applicant, and did not indicate any adverse effects or burdens on current traffic infrastructure. Further, various Staff comments in this report seem to indicate that the Rezoning and proposed project could be a catalyst for high-level traffic flow plan for a large segment of what is the City Center.

9. *The Zoning Map Amendment will not significantly impact the natural environment, including air, water, noise, stormwater management, wildlife and vegetation.*

Finding: The proposed Zoning Map Amendment would not likely impact the natural environment more than it is currently impacted. The Applicant proposes only to repurpose the existing impervious surfaces. It should be noted that stormwater and canopy regulations currently in existence would certainly improve the current infrastructure for the long term.

10. *The Zoning Map Amendment will not have a significant adverse impact on property in the vicinity of the subject property.*

Finding: Staff does not anticipate that the proposed Zoning Map Amendment would have a substantial adverse impact on properties in the vicinity of the subject property. In fact, it is Staff's belief that the proposed zoning change would increase the likelihood that the property development would match the vision found in both the City Center Master Plan and the Next Ten to ensure quality gathering spaces easily accessible for pedestrian traffic.

COMMENTS FROM OTHER PARTIES

Sandy Springs City Architect:

It would be in keeping with both other existing developments in the area and would advance the goals of our plans.

I do not think it should move forward without a master street plan for the entire 25+ acres Jamestown owns at that location, though. A street plan would not require them to designate any of the yet-to-be-redeveloped portions of the property other than the quadrant in question for any future use but it would provide a framework for improved circulation for all modes in our (emerging) downtown...I think this Rezoning should be predicated on providing a street plan acceptable to the City.

I would also say that such a street plan should include proposals to correct the property's overbuilt bounding streets, Cliftwood, Sandy Springs Circle and Hammond.

Sandy Springs Transportation Engineer:

For redevelopment, there should be an overall street network plan that meets the intent of the City Center Master Plan to provide a street grid suitable for low-speed traffic, walking, and bicycling and provide ample on-site circulation. In addition, the potential for new public street connections between two existing public streets should be considered.

Sandy Springs City Engineer:

1. The developer shall incorporate Streetscape and Block Face standards for the underlying zoning district within the development.
2. The developer shall provide improvements or modifications required for existing roadway systems, which may include coordination with Public Works and Community Development to determine the proper road configuration along the project frontage.

Sandy Springs Chief Environmental Compliance Officer:

No comment provided.

Sandy Springs Arborist:

No comment provided.

Sandy Springs Sustainability Manager:

No comment provided.

Sandy Springs Building Official:

Need to require a little more in the master plan for the entire site to determine block design and traffic flow. The closer you get to I-285, the more congested traffic gets so a serious look into that needs to be considered.

Sandy Springs Fire Marshal:

We have no issues with the Rezoning and feel it's a good use for the space and keeps with other developments around it. As always the applicant will need to be aware of all applicable code requirements and city ordinances as they progress through their planning stages. Of particular concern for us here is access for apparatus and building types, though admittedly this is more of a concern for permitting.

MARTA:

No comment provided.

Fulton County Schools:

No comment provided.

Fulton County Board of Health:

No comment provided.

Fulton County Public Services and Utilities:

No comment provided.

PUBLIC PARTICIPATIONCommunity Meeting I

There were approximately 29 in-person and virtual attendees, including the Applicant team and the President of the Sandy Springs Council of Neighborhoods (SSCN) at the Initial Community Meeting on August 26, 2021, held both in person and virtually. Questions and topics discussed included the proposed project, similar projects done by the Applicant, traffic generation, current tenant plans, the proposed construction phasing, etc.

Community Meeting II

There were approximately 18 in-person and virtual attendees, including the Applicant team and the President of SSCN at the Second Community Meeting on October 04, 2021, held both in person and virtually. Questions and topics discussed included the proposed project, current tenant's future, target rents, public restrooms, construction phasing, etc.

Correspondence Received

No comments were received at the time of this report.

DEPARTMENT OF COMMUNITY DEVELOPMENT RECOMMENDATION
Following review, and based on the findings, Staff recommends Approval of Zoning Map Amendment (Rezoning) RZ21-0003, request for a Zoning Map Amendment (Rezoning) from CS-3 (City Springs, 3 stories maximum height) to CS-6 (City Springs, 6 stories maximum height).

Received

October 18, 2021, 3:20 PM



SANDY SPRINGS™
GEORGIA

Case No.: **RZ21-0003**Planner's initials:

APPLICATION

ZONING MAP AMENDMENT (REZONING) & CONDITIONAL USE PERMIT

☒ ZONING MAP AMENDMENT - OR - ☐ CONDITIONAL USE PERMIT

Application Checklist:

Page No.	Item	Completed/ Included in Submittal
2	Project Information Sheet	☒
3-6	Detailed Process and Instructions	N/A
7	Application Form	☒
8-10	Authorization and Disclosure Forms	☒
11	Letter of Intent	☒
11	Zoning Impact Analysis	☒ or N/A ☐
11-12	Conditional Use Analysis	☒ or N/A ☐
12	Traffic Impact Study	☒ or N/A ☐
12	Development of Regional Impact	☐ or N/A ☒
12	Chattahoochee River Corridor Certificate	☐ or N/A ☒
12-13	8½" x 11" copy of Survey	☒
12-13	8½" x 11" copy of Site Plan	☒ or N/A ☐
12-13	11" x 17" copy of Survey	☒
12-13	11" x 17" copy of Site Plan	☒ or N/A ☐
12-13	Two (2) full-scale copies of Survey	☒
12-13	Two (2) full-scale copies of Site Plan	☒ or N/A ☐
12	8½" x 11" copy of Legal Description (must be in Word format)	☒
	11" x 17" copy of Elevations and/or Sections	☒ or N/A ☐
14	Meeting Schedule	N/A
15	Fee Schedule	N/A
15	Fee Payment	☒
16	Sign Specifications	N/A
17	Sign-In Sheet Template	N/A
4	Summary of and Sign-In Sheet Completed at CMI	☒
	All documents in electronic form (email)	☒

The Director reserves the right to request additional information deemed necessary to analyze the request. Incomplete applications will not be accepted.

Planner's initials:



SANDY SPRINGS™

GEORGIA

Case No.: RZ21-0003

Planner's initials: *AB*

PROJECT INFORMATION SHEET

PROPERTY	Address(es): <u>5920</u> 5920 Roswell Road, Sandy Springs, Georgia 30328-Western Portion	
	Parcel Tax ID(s): 17 009000030366	
	Total acreage: northerly 6.45 <u>7.95</u> acres	Council District: Three (3)
	Current zoning: CS-3	Current use: Retail, Theatre & Restaurants
	Character Area: City Springs	

APPLICATION	Purpose of the Application: <u>Rezoned to CS-6</u>	
	Check all that apply:	
	☒ Zoning Map Amendment (Rezoning)	☐ Conditional Use Permit
	Detailed request: Intended mixed use development containing movie theatre, restaurants, office and multi-family as more particularly shown on the Site Plan to be submitted	
	Petitioner: Jamestown Parkside Shops LLP, a delaware limited partnership	
	Petitioner's address: Ponce City Market, 675 Ponce de Leon Avenue, NE, 7th Floor Atlanta, Georgia 30308	
	Phone: (404) 709-0137	Email: Eric.Hines@JamestownLP.com

OWNER	Property owner: Jamestown Parkside Shops LLP, a Delaware limited partnership	
	Owner's address: Ponce City Market 675 Ponce de Leon Avenue, NE, 7th Floor, Atlanta, GA. 30308	
	Phone: (404) 709-0137	Email: Eric.Hines @JamestownLP.com
	Signature (authorizing initiation of the process): <i>EP</i>	
	If the property is under contract, provide a copy of the contract <u>Eric Hines-Senior Vice President Asset Management</u>	

- TO BE FILLED OUT BY P&Z STAFF -

Pre-Application Meeting date: <u>8/2/21</u>	Anticipated Application date: <u>9/7/21</u>
CMI date, time, and location: Thursday, August 26, 2021, 6:00 PM, The Springs Cinema & Taphouse, 5920 Roswell Road, C103, Sandy Springs, Georgia 30328	
ADDITIONAL INFORMATION NEEDED:	
SUBMITTAL ITEMS WAIVED BY DIRECTOR:	



SANDY SPRINGS™
GEORGIA

Case No.: **RZ21-0003**

Planner's initials:

APPLICATION FORM

APPLICATION	Purpose of the Application: Rezone the Property from CS-3 to CS-6	
	Check all that apply:	
	☒ Zoning Map Amendment (Rezoning)	☐ Conditional Use Permit
	Detailed request: 51,400 square feet of redeveloped retail	
	63,000 square feet of office use	
	(5) townhomes, 23 condominiums and 190 multi-family units	
	retention of the existing movie theatre	

COMMUNITY MEETING REPORT	Date and location of CMI: The Springs movie theatre on Sandy Springs Circle	
	Beginning time: 6:00 p.m.	End time: 8:15 p.m.
	Summary of concerns discussed: See Summary attached hereto	
	Does the Application address the concerns discussed at the CMI? ☒ Yes ☐ No	
	Explain: As noted on the Summary attached hereto	

- TO BE FILLED OUT BY P&Z STAFF -

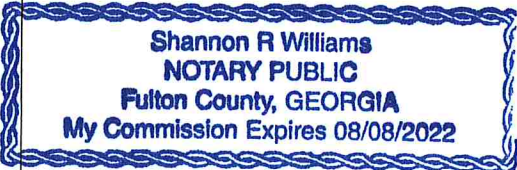
Application date: September 7, 2021	Tentative Planning Commission date: 11/17/21
CMII date and time: 10/4/2021	Tentative Mayor and City Council date: 12/21/21
OFFICIAL REQUEST (FOR PUBLICATION):	



SANDY SPRINGS™
GEORGIA

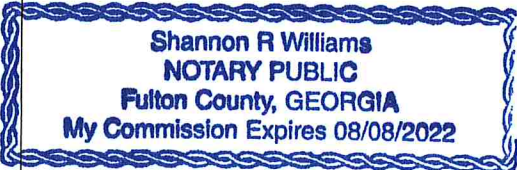
AUTHORIZATION FORM – PART I

A- The property owner must fill out the following section and have it notarized. If a property has multiple owners, each owner must separately fill out a copy of the Authorization Form.

Owner states under oath that he/she is the owner of the property described in the attached legal description, which is made part of this Application.	
Owner's name: <u>Jamestown Parkside Shops LLP</u>	Sworn and subscribed before me this
Address: <u>Ponce City Market</u> <u>675 Ponce de Leon Ave. NE,</u>	<u>7</u> th day of <u>September</u> <u>2021</u>
City, State, Zip Code: <u>Atlanta, Georgia 30308</u>	Notary public: <u>Shannon R. Williams</u>
Email address: <u>Eric.Hines@JamestownLP.com</u>	Seal:
Phone number: <u>(404) 709-0137</u>	
Owner's signature: <u>[Signature]</u> Eric Hines-Senior Vice President Asset Management	
Commission expires: <u>August 8, 2022</u>	

B- If the Applicant is *not* the current owner of the subject property:

Fill out the following section, check the appropriate statement, and have it notarized.

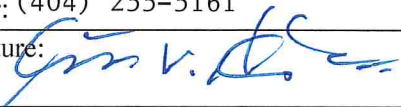
Applicant states under oath that:	
☐ He/she is the executor or Attorney-in-Fact under a Power-of-Attorney for the owner (<i>attach a copy of the contract</i>); or ☐ He/she has an option to purchase the subject property (<i>attach a copy of the contract</i>); or ☐ He/she has an estate of years which permits the Applicant to apply (<i>attach a copy of the lease</i>)	
Applicant's name: <u>SAME AS OWNER</u>	Sworn and subscribed before me this
Company name: <u>Jamestown Parkside Shops LLC</u>	<u> </u> th day of <u> </u> <u>2021</u>
Address:	Notary public:
City, State, Zip Code:	Seal:
Email address:	
Phone number:	
Applicant's signature: <u>Eric Hines-Senior Vice President</u> <u>Asset Management</u>	
Commission expires:	



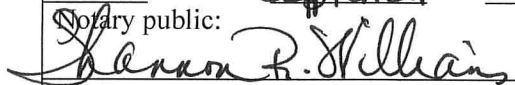
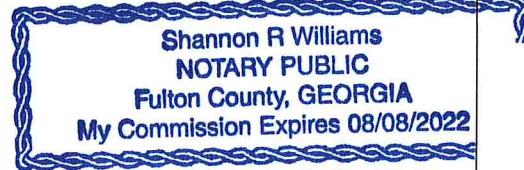
SANDY SPRINGS™
GEORGIA

AUTHORIZATION FORM – PART II

C- If an agent or attorney will represent the owner and/or the Applicant:
Fill out the following section and have it notarized.

Agent's name:	Nathan V. Hendricks III
Company:	Self
Address:	6085 Lake Forrest Drive Suite 200
City, State, Zip Code:	Sandy Springs, Georgia 30328
Email address:	nvh@cobbbandhyre.com
Phone number:	(404) 255-5161
Agent's signature:	
Applicant's signature:	Jamestown Parkside Shops LLC
By:	

Eric Hines-Senior Vice President
Asset Management

Sworn and subscribed before me this
7 th day of September 2021
Notary public:

Seal:

Commission expires August 8, 2022



SANDY SPRINGS™
GEORGIA

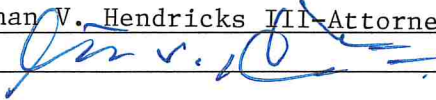
DISCLOSURE OF CONTRIBUTION FORM

Within the two (2) years immediately preceding the filing of this Application, have you made any campaign contributions aggregating \$250.00 or more or made gifts having an aggregate value of \$250.00 to the Mayor or any member of the City Council? ☐ Yes ☒ No

List all individuals or business entities which have an ownership interest in the property which is the subject of this Application: Jamestown Parkside Shops LLP, a Delaware limited partnership

Campaign Contributions: NONE			
Name of Government Official	Total Dollar Amount	Date of Contribution	Enumeration and Description of Gift Valued at \$250.00 or more

The undersigned acknowledges that this disclosure is made in accordance with the Official Code of Georgia, Section 36-67A-1 et. seq. Conflict of interest in zoning actions, and that the information set forth herein is true to the undersigned's best knowledge, information and belief.

Name: Nathan V. Hendricks III - Attorney for Applicant/Owner
Signature:  Date: September 2, 2021

Note: Each party involved in the Application must sign an individual copy of this form.



SANDY SPRINGS™

GEORGIA

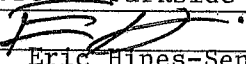
DISCLOSURE OF CONTRIBUTION FORM

Within the two (2) years immediately preceding the filing of this Application, have you made any campaign contributions aggregating \$250.00 or more or made gifts having an aggregate value of \$250.00 to the Mayor or any member of the City Council? ☐ Yes ☒ No

List all individuals or business entities which have an ownership interest in the property which is the subject of this Application: Jamestown Parkside Shops LLP, a Delaware limited partnership

Campaign Contributions: NONE			
Name of Government Official	Total Dollar Amount	Date of Contribution	Enumeration and Description of Gift Valued at \$250.00 or more

The undersigned acknowledges that this disclosure is made in accordance with the Official Code of Georgia, Section 36-67A-1 et. seq. Conflict of interest in zoning actions, and that the information set forth herein is true to the undersigned's best knowledge, information and belief.

Name: Jamestown Parkside Shops LLP, a Delaware limited partnership
Signature:  Date: September , 2021
By: Eric Hines-Senior Vice President Asset Management

Note: Each party involved in the Application must sign an individual copy of this form.



SANDY SPRINGS™

GEORGIA

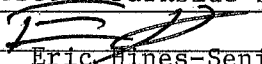
DISCLOSURE OF CONTRIBUTION FORM

Within the two (2) years immediately preceding the filing of this Application, have you made any campaign contributions aggregating \$250.00 or more or made gifts having an aggregate value of \$250.00 to the Mayor or any member of the City Council? ☐ Yes ☒ No

List all individuals or business entities which have an ownership interest in the property which is the subject of this Application: Jamestown Parkside Shops LLC, a Delaware limited partnership

Campaign Contributions: NONE			
Name of Government Official	Total Dollar Amount	Date of Contribution	Enumeration and Description of Gift Valued at \$250.00 or more

The undersigned acknowledges that this disclosure is made in accordance with the Official Code of Georgia, Section 36-67A-1 et. seq. Conflict of interest in zoning actions, and that the information set forth herein is true to the undersigned's best knowledge, information and belief.

Name: Jamestown Parkside Shops LLP, a Delaware limited partnership	
Signature: 	Date: September , 2021
By: Eric Hines-Senior Vice President Asset Management	

Note: Each party involved in the Application must sign an individual copy of this form.

LETTER OF INTENT

The property has an address of 5920 Roswell Road, Sandy Springs, Georgia 30328 and is the western portion of that property located at the intersection of Cliftwood Drive and Sandy Springs Circle and consists of approximately 7.59 acres (the "Property"). The Property is presently zoned to the CS-3 zoning classification and the Applicant requests are zoning to the CS-6 zoning classification. The Property represents a tired shopping center much in need of redevelopment. The Applicant is a well-respected developer with the ability to redevelop the Property into a true live/work/play environment, The City Springs Zoning Classification provides the developer with the ability to develop truly a live/work/play environment implementing the City Springs Master Plan as it will bring to the area a redevelopment of an old and tired shopping center which is completely in keeping with the very basis of the City Springs Zoning District. If the specific plan outlined below fails to be completed, the intent still is to have the ability and flexibility to redevelop at least some portion of the property to be 6 stories tall.

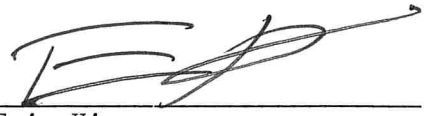
It is the intention of the Applicant to displace 64,080 square feet of the retail recently located on the Property with 51,400 square feet of redeveloped retail, together with 63,000 square feet of office use, together with five(5) townhouses, a building containing 23 condominiums and 190 apartment units projected to consist of one (1) and (2) two bedroom units, with footages to be determined. The townhouses and condominiums are intended to be "for sale" with the apartment units being rental. As better market conditions develop the Applicant will have a better understating of the total mix of townhouses, condominiums and apartments to be developed. Apart of the intended redevelopment of the Property is the continued operation of the movie theatre on the Property known as "The Springs". Also to be noted on the Site Plan submitted with the Application is the .6 acre parcel known as the Common Green area and the .4 acre roof top of green space located above the movie theatre. Approximately 15% of the proposed 7.59 acres of area subject to redevelopment would be over 3 stories tall. The Applicant sees this as an opportunity to further the connectivity to and throughout the City Springs district with improved pedestrian and automobile access.

The development plan of the Applicant as above described and as reflected on the Site Plan submitted with the Application presents a well thought through development plan that will bring to the City of Sandy Springs truly a live/work/play development that is entirely in keeping with the Sandy Springs Development Plan and accordingly is appropriate and the appropriateness of this Rezoning Application and the Constitutional Assertions of the Applicant are more particularly stated and set forth on Exhibit "A" attached hereto and by reference thereto made a part hereof.

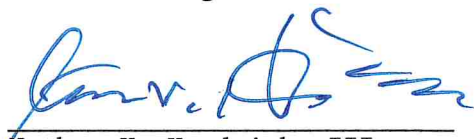
Accordingly, the Applicant requests that the Mayor and City Council approve this Rezoning Application as submitted in order that the Applicant be able to proceed with the lawful use and development of the Property.

APPLICANT:

Jamestown Parkside Shops LLP,
a Delaware limited partnership

By: 

Eric Hines
Senior Vice President
Asset Management


Nathan V. Hendricks III
Attorney for the Applicant

6085 Lake Forrest Drive
Suite 200
Sandy Springs, Georgia 30328
(404) 255-5161

Exhibit "A"

APPROPRIATENESS OF APPLICATION
AND
CONSTITUTIONAL ASSERTIONS

The portions of the Zoning Resolution of the City of Sandy Springs as applied to the subject Property which classify or may classify the Property so as to prohibit its development as proposed by the Applicant are or would be unconstitutional in that they would destroy the Applicant's property rights without first paying fair, adequate and just compensation for such rights in violation of Article I, Section I, Paragraph I of the Constitution of the State of Georgia of 1983, Article I, Section III, Paragraph I of the Constitution of the State of Georgia of 1983 and the Due Process Clause of the Fourteenth Amendment to the Constitution of the United States.

The application of the Zoning Resolution of the City of Sandy Springs to the Property which restricts its use to any classification other than that proposed by the Applicant is unconstitutional, illegal, null and void, constituting a taking of Applicant's Property in violation of the Just Compensation Clause of the Fifth Amendment to the Constitution of the United States, Article I, Section I, Paragraph I and Article I, Section III, Paragraph I of the Constitution of the State of Georgia of 1983 and the Equal Protection and Due Process Clauses of the Fourteenth Amendment to the Constitution of the United States denying the Applicant an economically viable use of its land while not substantially advancing legitimate state interests.

A denial of this Application would constitute an arbitrary and capricious act by the Sandy Springs City Council without any rational basis therefore constituting an abuse of discretion in violation of Article I, Section I, Paragraph I of the Constitution of the State of Georgia of 1983, Article I, Section III, Paragraph I of the Constitution of the State of Georgia of 1983 and the Due Process Clause of the Fourteenth Amendment to the Constitution of the United States.

A refusal by the Sandy Springs City Council to rezone the Property as proposed by the Applicant would be unconstitutional and discriminate in an arbitrary, capricious and unreasonable manner between the Applicant and owners of similarly situated property in violation of Article I, Section I, Paragraph II of the Constitution of the State of Georgia of 1983 and the Equal Protection Clause of the Fourteenth Amendment to the Constitution of the United States. Any rezoning of the subject Property subject to conditions which are different from the conditions requested by the Applicant, to the extent such different conditions would have the effect of further restricting the Applicant's utilization of the subject Property would also constitute an arbitrary, capricious and discriminatory act in zoning the Property to an unconstitutional classification and would likewise violate each of the provisions of the State and Federal Constitutions set forth hereinabove.

ZONING IMPACT ANALYSIS (Sec 11.3.6.C.)

1. The Zoning Map Amendment does not correct an error but does meet the challenge of some changing condition, trend or fact.
Pursuant to Sec. 5.1.6. of the City Springs provision provided in the Development Code, the proposed rezoning implements the City Springs Master Plan as it brings to the area a redevelopment of an old and tired shopping center which is completely in keeping with the very basis of the City Springs Zoning District.
2. The Zoning Map Amendment substantially conforms with the Comprehensive Plan. The Amendment will allow for the redevelopment to help the City achieve some of its goals laid out in the Comprehensive Plan including revitalizing Roswell Road, as the proposed redevelopment is just off of the road and achieve a better housing balance with the addition of townhomes, condominiums, and apartments.
3. The Zoning Map Amendment substantially conforms with the stated purpose and intent of the Development Code.
4. The Zoning Map Amendment will reinforce the existing or planned character of the area.
5. The subject property is appropriate for the development allowed in the proposed district and the use and development of adjacent properties.
6. There are substantial reasons why the property must not be used according to the existing zoning as the redevelopment plan for the Property envisions building heights that vary and are in keeping with the rezoning to CS-6 that was approved by the Mayor and City Council directly across Cliftwood Drive from the subject Property.
7. There is a need for the proposed use at the proposed location as it will bring to the area a Developer well known for excellence in mixed use development and truly create a live/work/play environment within the proposed redevelopment. 6 stories provides for more options for places to live in close proximity to other uses that allows for increased pedestrian foot traffic and more greenspace versus the existing parking lot.
8. The city and other service providers will be able to provide sufficient public facilities and services including schools, roads, recreation facilities, wastewater treatment, water supply and stormwater facilities, police, fire and emergency medical services, while maintain sufficient levels of service to existing development.
9. The Zoning Amendment will not significantly impact the natural environment, including air, water, noise, stormwater management, wildlife and vegetation.
10. The Zoning Map Amendment will now have a significant adverse impact on property in the vicinity of the subject Property but rather will have a positive effect on properties in the vicinity of the subject Property and bring to the immediate area a true sense of place in the furtherance of the live/work/play atmosphere to be created.



August 30, 2021

Mr. Eric Hines
Jamestown, LP
675 Ponce de Leon Avenue, NE, 7th Floor
Atlanta, GA 30308

Via E-Mail: Eric.Hines@JamestownLP.com

Subject: Letter to Support the Validity of the Findings and Recommendations of the
Traffic Impact Study for Proposed Parkside Shops Mixed-Use Development Based on Traffic Counts
Collected During COVID-19 Pandemic, City of Sandy Springs, Georgia

Greetings Eric,

As you are aware, the Traffic Impact Study for the Proposed Parkside Shops Mixed-Use Development, dated November 9, 2020 and revised July 29, 2021, was prepared during the COVID-19 pandemic. The traffic analysis was based on traffic counts that were, out of necessity, collected during pandemic conditions. Those counts were adjusted using historic traffic count data in order to develop typical traffic volumes that would be expected during non-pandemic conditions. Subsequent to the completion of the study, and with the return of students to school this fall of 2021, it was decided to collect a few supplemental traffic counts for comparison with the adjusted counts used in the traffic study. For this purpose, a new 24-hour count was collected on Sandy Springs Circle north of Cliftwood Drive and a new intersection count was collected at the Roswell Road / Cliftwood Drive intersection. These provide a good representative sampling of the study locations. The counts were collected on Thursday, August 19, 2021, with area schools in session. The volumes in the traffic study and the new counts at these locations are summarized in the following two tables:

24-Hour Count

Location	Date	N	S	Two-Way
Sandy Springs Circle north of Cliftwood Drive	Thursday October 6, 2020	2,260	2,546	4,806
Sandy Springs Circle north of Cliftwood Drive	Thursday August 19, 2021	2,338	3,047	5,385
Difference		3%	20%	12%

Intersection Peak Hour Count

Weekday A.M. Peak Hour	Northbound Roswell Road				Southbound Roswell Road				Eastbound Cliftwood Drive				Westbound Carpenter Drive			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Counted Tuesday, Oct 6, 2020	105	1016	12	1133	32	933	23	988	52	29	52	133	41	5	25	71
Calibration with Previous Counts	150%	120%	150%		150%	120%	150%		150%	150%	150%		150%	150%	150%	
Adjusted Existing Volumes	158	1219	18	1395	48	1120	35	1202	78	44	78	200	62	8	38	107
Counted Thursday, Aug 19, 2021	134	1056	16	1206	53	1180	19	1252	71	27	80	178	51	5	21	77
% Difference	-15%	-13%	-11%	-14%	10%	5%	-45%	4%	-9%	-38%	3%	-11%	-17%	-33%	-44%	-28%
Weekday P.M. Peak Hour	Northbound Roswell Road				Southbound Roswell Road				Eastbound Cliftwood Drive				Westbound Carpenter Drive			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Counted Tuesday, Oct 6, 2020	111	1207	14	1332	43	1217	26	1286	74	25	85	184	79	22	35	136
Calibration with Previous Counts	150%	120%	150%		150%	120%	150%		150%	150%	150%		150%	150%	150%	
Adjusted Existing Volumes	167	1448	21	1636	65	1460	39	1564	111	38	128	276	119	33	53	204
Counted Thursday, Aug 19, 2021	100	1048	6	1154	51	1180	17	1248	90	25	143	258	87	27	39	153
% Difference	-40%	-28%	-71%	-29%	-21%	-19%	-56%	-20%	-19%	-33%	12%	-7%	-27%	-18%	-26%	-25%

The new 24-hour count is 12% higher than what was reported in the traffic study. However, the intersection peak hour counts are lower than the adjusted counts used in the study. In the study, the counted 2020 volumes were adjusted by 120% to 150% to account for the pandemic. That adjustment was based on a detailed review of historic data that had been obtained from Sandy Springs. The goal of the adjustment was to achieve expected non-COVID, or existing “typical” volumes, with any potential erring being on the conservatively-high side. A review of the peak hour counts in detail will reveal that the adjusted volumes were conservatively high, but generally closer to the current 2021 counts than the 2020 “COVID” counts.

Therefore, the analysis in the traffic study is slightly conservative (it is based on slightly high volume projections). There is always an expectation of a margin of error when adjusting volumes based on historic data, especially to account for such an atypical condition such as the pandemic. Given that expectation, it is better that the adjusted volumes were slightly high, than if they had been underestimated. Note that this is a comparison at only one intersection and it is possible that the differences at the other intersections could be higher or lower.

The traffic study as it now stands (July 2021 version), is likely conservative in the analysis and the conclusions. A review of the report leads to the conclusion, barring any extraordinary change that may be unknown, that I would not change my recommendations and conclusions at study intersections 1, 2, 3, 5, 7, 8, 9, 10, 11, or 12. The two remaining intersections, 4 and 6, are the signals on Roswell Road at Hammond and at Cliftwood. At Roswell / Hammond, I identified the need for the widening of Roswell Road and other capacity constraints, all of which were noted to be system improvements that should be addressed independent of the Parkside project. At Roswell / Cliftwood, I identified the need for a new eastbound right turn lane on Cliftwood and a right turn overlap phase on

Mr. Eric Hines
Parkside Shopping Center Letter to Support Traffic Impact Study
Based on COVID-19 Counts
August 30, 2021

3

the signal, and that recommendation is still valid – the new eastbound right turn volume was one of the few locations that turned out slightly higher than my projections. Based on this small sample comparison, and the likelihood that none of the recommendations in the traffic study would change, I would come to the conclusion that the traffic study does NOT need to be fully updated with new, August 2021 counts. It is pointed out that one reason to do such an update would be to have a record and analysis of post-pandemic conditions. However, it should be recognized that conditions are still likely in flux, with some home schooling and work from home due to lingering covid concerns, such that a full August 2021 recount and update may still not represent typical post-COVID conditions.

I would be happy to discuss this information.

Sincerely,



Marc R. Acampora, PE
Traffic Engineer

Traffic Impact Study

Proposed Parkside Shops Mixed-Use Development
City of Sandy Springs, Georgia

November 9, 2020
Revised July 29, 2021

MARC R. ACAMPORA, PE, LLC
TRAFFIC ENGINEERING



Traffic Impact Study

Proposed Parkside Shops Mixed-Use Development City of Sandy Springs, Georgia

study prepared for:

Jamestown Parkside Shops, LP
675 Ponce de Leon Avenue, NE, 7th Floor
Atlanta, GA 30308

November 9, 2020
Revised July 29, 2021



MARC R. ACAMPORA, PE, LLC
TRAFFIC ENGINEERING

858 Myrtle Street, NE
Atlanta, Georgia 30308
phone: (678) 637-1763
e-mail: acamporatraffic@comcast.net

Contents

INTRODUCTION1

EXISTING TRAFFIC CONDITIONS2

 DESCRIPTION OF EXISTING ROADWAYS2

 PEDESTRIAN, BICYCLE, AND TRANSIT ACCESSIBILITY3

 EXISTING TRAFFIC VOLUMES.....3

 EXISTING INTERSECTION OPERATIONS7

NO-BUILD TRAFFIC CONDITIONS.....9

 NO BUILD TRAFFIC VOLUMES9

 PLANNED AND PROGRAMMED TRANSPORTATION INFRASTRUCTURE IMPROVEMENTS10

 NO-BUILD INTERSECTION OPERATIONS10

PROJECT TRAFFIC CHARACTERISTICS13

 PROJECT DESCRIPTION13

 TRIP GENERATION.....14

 TRIP DISTRIBUTION AND ASSIGNMENT15

FUTURE TRAFFIC CONDITIONS.....18

 FUTURE INTERSECTION OPERATIONS.....19

DISCUSSION OF RESULTS AND RECOMMENDATIONS21

APPENDIX

Tables

TABLE 1 – COUNTED AND HISTORIC 24-HOUR TRAFFIC VOLUME COUNTS AND ANNUAL GROWTH RATES.....4

TABLE 2 – EXISTING INTERSECTION OPERATIONS7

TABLE 3 – HISTORIC GEORGIA DOT TRAFFIC VOLUME COUNTS AND ANNUAL GROWTH RATES9

TABLE 4 – NO-BUILD INTERSECTION OPERATIONS.....11

TABLE 5 – PROPOSED PARKSIDE SHOPS TRIP GENERATION15

TABLE 6 – FUTURE INTERSECTION OPERATIONS19

TABLE A – LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS AND ROUNDABOUTSAPPENDIX B

TABLE B – LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONSAPPENDIX B

Figures

FIGURE 1 – SITE LOCATION MAP1

FIGURE 2 – EXISTING* WEEKDAY A.M. AND P.M. PEAK HOUR TRAFFIC VOLUMES.....6

FIGURE 3 – SITE PLAN13

FIGURE 4 – PARKSIDE SHOPS TRIP DISTRIBUTION PERCENTAGES16

FIGURE 5 – PROJECT-GENERATED WEEKDAY A.M. AND P.M. PEAK HOUR TRIPS17

FIGURE 6 – FUTURE WEEKDAY A.M AND P.M. PEAK HOUR TRAFFIC VOLUMES18

Photographs in Appendix F

PHOTOGRAPH 1 – SANDY SPRINGS CIRCLE FACING NORTH AT HAMMOND DRIVE8

PHOTOGRAPH 2 – HAMMOND DRIVE FACING WEST AT HAMMOND EXCHANGE WEST ACCESS.....8

PHOTOGRAPH 3 – HAMMOND DRIVE FACING EAST AT HAMMOND EXCHANGE EAST ACCESS.....9

PHOTOGRAPH 4 – HAMMOND DRIVE FACING EAST AT ROSWELL ROAD9

PHOTOGRAPH 5 – ROSWELL ROAD FACING NORTH AT PARKSIDE SHOPS ACCESS10

PHOTOGRAPH 6 – CLIFTWOOD DRIVE FACING EAST AT ROSWELL ROAD10

PHOTOGRAPH 7 – CLIFTWOOD DRIVE FACING WEST AT PARKSIDE SHOPS EAST ACCESS.....11

PHOTOGRAPH 8 – CLIFTWOOD DRIVE FACING WEST AT PARKSIDE SHOPS WEST ACCESS11

PHOTOGRAPH 9 – SANDY SPRINGS CIRCLE FACING SOUTH AT CLIFTWOOD DRIVE12

PHOTOGRAPH 10 – SANDY SPRINGS CIRCLE FACING NORTH AT PARKSIDE SHOPS ACCESSES12

PHOTOGRAPH 11 – SANDY SPRINGS CIRCLE FACING SOUTH AT PARKSIDE SHOPS ACCESSES13

PHOTOGRAPH 12 – RAMP CONNECTING WEST AND EAST SIDES OF PARKSIDE SHOPS.....13

PHOTOGRAPH 13 – HAMMOND EXCHANGE PARKING LOT INCORRECT STRIPING COLORS.....14

PHOTOGRAPH 14 – PARKSIDE SHOPS EAST PARKING LOT INCORRECT STRIPING COLORS.....14

PHOTOGRAPH 15 – PARKSIDE SHOPS WEST PARKING LOT INCORRECT STRIPING COLORS.....15

Introduction

This study assesses the traffic impact of the proposed Parkside Shops mixed-use development in the City of Sandy Springs, Georgia. The site is located at the northeast corner of the intersection of Sandy Springs Circle and Cliftwood Drive, as shown in Figure 1. The majority of the development site currently serves as a surface parking lot for a cinema and gym. The proposed development will include a mix of buildings with approximately 71,500 square feet of loft office, approximately 55,400 square feet of retail/restaurant, and approximately 255 multi-family residential units. Vehicular access will be provided at two existing driveways on Sandy Springs Circle, and two existing and one new driveway on Cliftwood Drive. There will be interparcel vehicular connectivity to the existing developed east side of the Parkside Shops shopping center as well as to the existing Hammond Exchange shopping center to the north.

The purpose of this traffic impact study is to determine existing traffic operating conditions in the vicinity of the proposed development, project future traffic volumes, assess the impact of the subject development, then develop conclusions and recommendations to mitigate the project traffic impact and ensure safe and efficient existing and future traffic conditions in the vicinity of the project.

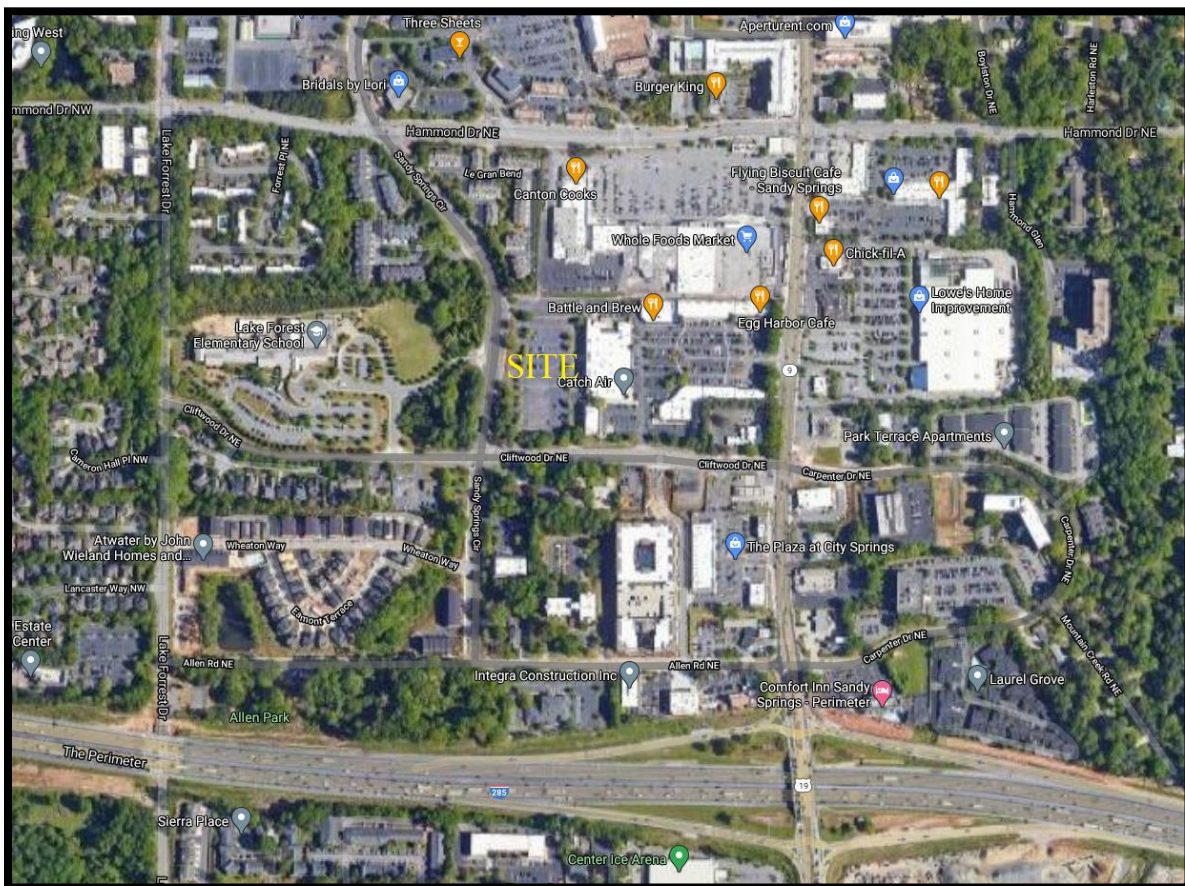


Figure 1 – Site Location Map

Existing Traffic Conditions

Existing traffic conditions in the vicinity of the proposed Parkside Shops development were assessed. The following is a description of existing transportation facilities, traffic volumes, and intersection operations.

Description of Existing Roadways

Sandy Springs Circle is a minor urban collector that begins at Roswell Road to the north, travels west then turns south near Johnson Ferry Road, intersects with Mt Vernon Drive, and continues to the south, past the subject property and terminates at Allen Road. In the immediate vicinity of the subject property, Sandy Springs Circle has signalized intersections at Hammond Drive and at Cliftwood Drive. Adjacent to the site, the road generally has two through travel lanes in each direction plus turn lanes at certain locations. The southbound inner through lane becomes an exclusive left turn lane at Cliftwood Drive and south of Cliftwood Drive, Sandy Springs Circle has one through travel lane per direction. The terrain along Sandy Springs Circle is rolling, with a downhill grade from north to south through the study area. The posted speed limit is 35 mph, with a 25 mph school zone when flashing that includes the entire site frontage. Multiple twenty-four traffic counts collected on Sandy Springs Circle for this study, and previously, are presented below in Table 1.

Cliftwood Drive is an east/west local collector that begins at Lake Forrest Drive, passes the site and intersects with a signalized intersection at Roswell Road where it changes name to Carpenter Drive. Adjacent to the site the road generally has two lanes in each direction, while west of Sandy Springs Circle the road has one lane per direction. Cliftwood Drive has a steep uphill grade eastbound along the site frontage and the posted speed limit is 35 mph, with a 25 mph school zone when flashing that includes the entire site frontage. Twenty-four counts on Cliftwood Drive are presented in Table 1.

Hammond Drive is a minor urban arterial that begins at Mt Vernon Highway, intersects with Sandy Springs Circle in the vicinity of the subject development, passes the frontage of Hammond Exchange shopping center, intersects with Roswell Road then continues to the east, with ramps to and from the north at GA 400, then continuing to Ashford Dunwoody Road where it becomes Ravinia Parkway. The road has two through lanes in each direction west of Roswell Road, with exclusive turn lanes at certain intersections. In the immediate vicinity of the subject development, the terrain on Hammond Drive is generally level and the posted speed limit is 35 mph. Twenty-four counts on Hammond Drive are presented in Table 1.

Roswell Road (Georgia State Route 9) is a north/south principal urban arterial with two through travel lanes plus a center two way left turn lane or exclusive left turn lanes at major intersections. Right turn lanes are provided at some locations including the access to the Parkside Shops shopping center. The terrain is level to very gently rolling and the posted speed limit is 35 mph. Twenty-four counts on Roswell Road are presented in Table 1.

Pedestrian, Bicycle, and Transit Accessibility

There is a sidewalk along both sides of all roadways in the vicinity of the site except along the south side of Cliftwood Drive across from the site. There are striped crosswalks and pedestrian crossing signals at all signalized intersections in this study. There are striped “sharrows” where bicycles share lanes with automobile traffic on Sandy Springs Circle but no other designated bicycle lanes in the immediate vicinity of the site. MARTA bus route 5 runs along Roswell Road through this vicinity and MARTA bus route 87 travels along Hammond Drive and Roswell Road to the east and north of their intersection.

Appendix F contains photographs documenting the existing transportation conditions in the vicinity of the subject site.

Existing Traffic Volumes

The preparation of this traffic study coincided with some quarantining due to the COVID-19 pandemic. The roads in the vicinity of the proposed development, and throughout the state, have experienced dramatic decreases in volumes. However, traffic volumes have been increasing through the summer and, at the time of this study in the fall of 2020, schools had resumed classes, with a mix of in-classroom learning and online learning from home. It was decided that current counts could be collected, and adjusted with a calibration factor, as discussed below. The following intersections were counted for this study:

1. Hammond Drive / Sandy Springs Circle
2. Hammond Drive / Hammond Exchange Unsignalized West Access
3. Hammond Drive / Hammond Exchange Signalized East Access
4. Roswell Road / Hammond Drive
5. Roswell Road / Parkside Shops Access / Lowes Access
6. Roswell Road / Cliftwood Drive / Carpenter Drive
7. Cliftwood Drive / Parkside Shops East Access
8. Cliftwood Drive / Parkside Shops West Access
9. Sandy Springs Circle / Cliftwood Drive
10. Sandy Springs Circle / Parkside Shops South Access
11. Sandy Springs Circle / Parkside Shops North Access

Full turning movement traffic volume counts were collected at each intersection. The counts were collected on Tuesday, October 6, 2020, from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. The counts were compiled by 15-minute intervals and the four highest 15-minute intervals in each time period were summed. These volumes make up the unadjusted weekday a.m. and p.m. peak hour traffic volumes at each counted intersection. The raw count data is provided in Appendix A.

In addition to the intersection counts, 24-hour bi-directional traffic counts were collected on Hammond Drive between the west and east Hammond Exchange accesses, Roswell Road north of Cliftwood Drive, Cliftwood Drive

east of Sandy Springs Circle, and Sandy Springs Circle north of Cliftwood Drive. This count data is summarized in Table 1 and is also provided in Appendix A.

In order to determine if any calibration of the raw count data was appropriate to adjust for the COVID-19 pandemic, previously-collected traffic counts were obtained from the City of Sandy Springs. Turning movement counts were obtained from the City at the intersection of Hammond Drive at Sandy Springs Circle, collected both in May 2013 and in May 2018, and at Cliftwood Drive at Sandy Springs Circle, collected in May 2018. The City also provided 24-hour counts at approximately the same locations as the counts collected for this study. The traffic volume worksheets in Appendix A include the turning movement counts. Table 1 presents the 24-hour counts collected for this study and those obtained from the City.

Table 1 – Counted and Historic 24-Hour Traffic Volume Counts and Annual Growth Rates

Location	Date	N/E Volume	S/W Volume	Two-Way
Hammond bet W and E Hammond Exch Drives	Tues October 6, 2020	5,375	5,407	10,782
Hammond west of Sandy Springs Circle	Tues May 15, 2018	7,203	6,381	13,584
<i>Average Annual Change</i>				-10.9%
Roswell north of Cliftwood Drive	Tues October 6, 2020	18,347	17,779	36,126
Roswell south of Mt Vernon Highway	Thurs March 14, 2014	16,731	17,280	34,011
<i>Average Annual Change</i>				+1.0%
Cliftwood east of Sandy Springs Circle	Tues October 6, 2020	1,855	2,060	3,915
Cliftwood west of Roswell Road	Thurs October 11, 2018	2,414	2,841	5,255
<i>Average Annual Change</i>				-13.7%
Sandy Springs Circle north of Cliftwood Dr	Tues October 6, 2020	2,260	2,546	4,806
Sandy Springs Circle north of Reddington Pl	Tues March 12, 2019	3,219	3,416	6,635
<i>Average Annual Change</i>				-27.6%

Developing an adjustment factor to account for the COVID-19 pandemic is the most challenging piece of this traffic study because it is unprecedented and its long-term effects on traffic volumes and travel patterns are unmeasured. Anecdotally, it is readily observable that traffic volumes notably plummeted in the spring and summer of 2020. Likewise, anecdotally, volumes substantially increased in the fall of 2020, but still appear low. What is unknown is whether there will be a full return to pre-COVID-19 conditions or if there will be a long-term or permanent shift to increased work from home, changes in in-school attendance practices, shifts to online shopping and less dining out, etc. Decisions had to be made in this study as to whether the current counted volumes should be adjusted up to the older count levels extrapolated to 2020, or if the new volumes should supersede the older counts, or some combination of those conditions.

The data in Table 1 shows notably lower October 2020 volumes on Hammond Drive, Sandy Springs Drive, and Cliftwood Drive. The volumes on Roswell Road are higher than the previous count, but that count is from 2014. However, Table 3, presented later in this report, shows that 2019 Georgia DOT counts, which were pre-pandemic, were notably lower than the 2015 and 2016 Georgia DOT counts and the 2020 count on Roswell Road collected for this study is comparable in magnitude to the 2019 Georgia DOT count. The intersection turning movement counts, shown in Appendix A, reveal, very generally, notably lower through volumes on Hammond Drive but somewhat comparable volumes on the other local (non-Roswell Road) streets between the older counts and the current counts. Finally, driveway volumes to Parkside Shops and Hammond Exchange were solid and observations revealed notable retail activity. The subject site, which is a surface parking lot with a gym and theater, showed low activity, but the north Parkside Shops access on Sandy Springs Circle was active due to its ramp connection to the east side of the Parkside Shops shopping center. Consideration was made to zeroing out all retail accesses to erase the current pandemic levels of driveway retail activity, and replacing those with ITE trip generation for their respective square footages. Consideration was also given to adjusting the counts by turning movement to reproduce pre-pandemic data. Concern arose that these techniques would involve excessive massaging of the counts based somewhat on speculation and that a simpler, consistent approach would be more defensible.

Based on the discussion presented above, it was decided that all counted volumes would be increased by 50% except the through volumes on Roswell Road, which would be increased by 20%. This yields turn movements that are logically consistent with what could be reasonably expected in a post-pandemic condition. These adjusted volumes are considered to be the existing 2020 condition for this traffic impact study and are presented in Figure 2. Appendix A includes the raw count data and traffic volume worksheets that show the adjustments applied to the counts.

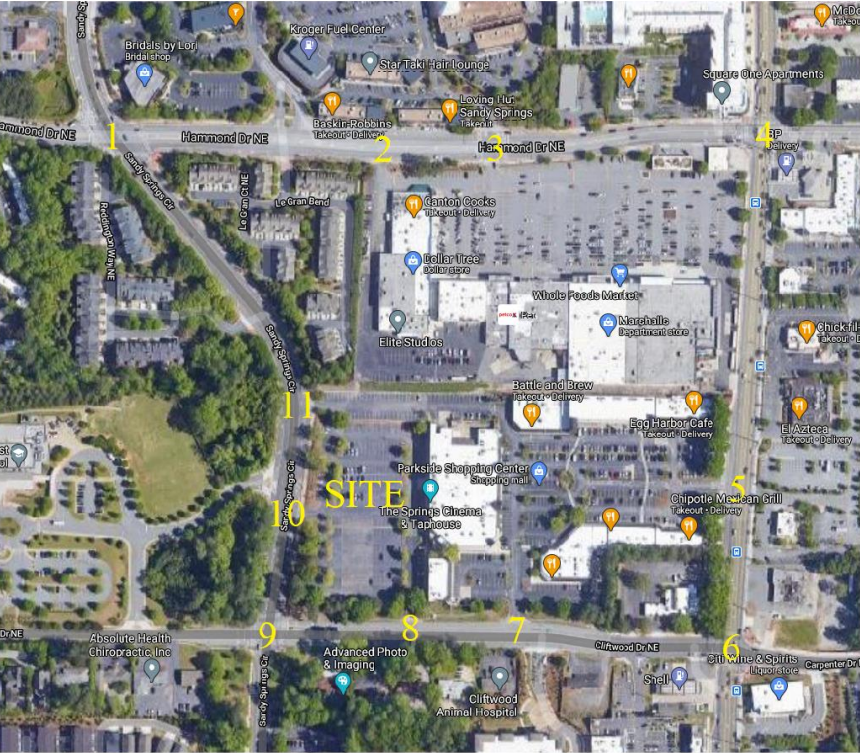


Figure 2 – Existing* Weekday A.M. and P.M. Peak Hour Traffic Volumes

*see preceding text

Existing Intersection Operations

Existing traffic operations were analyzed at each study intersection using Synchro software, version 10, in accordance with the methodology presented in the Transportation Research Board's 2016 *Highway Capacity Manual (HCM 6)*. The results of the analysis are shown in Table 2. Computer printouts containing detailed results of the analysis are located in Appendix C. Levels of service and delays are provided for each overall intersection and for each approach or controlled movement. Intersections or approaches that "fail" (operate at LOS E or F) are shown in bold type.

Table 2 – Existing Intersection Operations

Intersection / Approach	A.M. Peak Hour		P.M. Peak Hour	
	LOS	Delay (s/veh)	LOS	Delay (s/veh)
1. Hammond Drive at Sandy Springs Circle	B	18.1	C	21.8
northbound approach	A	6.7	B	14.9
southbound approach	A	6.6	B	14.6
eastbound approach	C	25.5	C	26.9
westbound approach	C	23.4	C	24.7
2. Hammond Drive at Hammond Exchange West Access	A	0.8	A	3.1
northbound approach	B	13.2	D	29.6
westbound left turn	A	8.5	A	9.0
3. Hammond Drive at Hammond Exchange Signalized Access	B	17.3	B	18.0
northbound approach	A	5.2	B	12.3
southbound approach	A	5.4	B	10.1
eastbound approach	B	17.8	B	18.0
westbound approach	C	21.1	C	22.1
4. Roswell Road at Hammond Drive	D	40.2	F	86.1
northbound approach	C	31.5	F	89.8
southbound approach	C	33.2	F	87.0
eastbound approach	E	64.4	F	87.4
westbound approach	D	52.3	E	78.7
5. Roswell Road at Parkside Access / Lowes Access	B	11.8	C	24.8
northbound left turn (entering Parkside)	B	11.2	C	15.1
southbound left turn (entering Lowes)	B	13.0	B	14.2
eastbound left/through (exiting Parkside)	F	106.9	F	NA*
eastbound right turn (exiting Parkside)	B	13.2	C	18.6
westbound approach (exiting Lowes)	F	NA*	F	NA*
6. Roswell Road at Cliftwood Drive / Carpenter Drive	C	20.0	C	30.0
northbound approach	B	12.8	C	21.5
southbound approach	B	12.3	C	20.8
eastbound approach	F	82.7	F	89.2
westbound approach	E	71.1	E	67.8
<i>Table 2 continued on next page</i>				

7. Cliftwood Drive at Parkside East Access	A	0.7	A	2.0
southbound approach (exiting Parkside)	A	10.0	B	11.2
eastbound left turn (entering Parkside)	A	7.6	A	7.8
8. Cliftwood Drive at Parkside West Access	A	0.6	A	0.4
southbound approach (exiting Parkside)	A	9.7	A	10.0
eastbound left turn (entering Parkside)	A	0.0	A	7.8
9. Sandy Springs Circle at Cliftwood Drive	B	11.8	B	13.6
northbound approach	B	10.1	B	11.6
southbound approach	A	5.7	A	7.8
eastbound approach	C	20.6	B	19.9
westbound approach	B	18.9	C	21.6
10. Sandy Springs Circle at Parkside South Access	A	0.5	A	0.9
southbound left turn (entering Parkside)	A	7.6	A	7.9
westbound approach (exiting Parkside)	A	9.5	B	10.4
11. Sandy Springs Circle at Parkside North Access	A	0.6	A	1.3
southbound left turn (entering Parkside)	A	7.6	A	8.0
westbound approach (exiting Parkside)	A	9.5	A	10.0

*NA=delay exceeds model capabilities

The existing analysis reveals acceptable traffic operations at most intersections and approaches. The locations that fail are all at intersections along Roswell Road and include the overall intersection and approaches at Roswell Road / Hammond Drive and the side street approaches at the Parkside Shops / Lowes access and the side street approaches on Cliftwood Drive and Carpenter Drive. A detailed discussion of each study intersection is provided in the Discussion of Results and Recommendations section of this report.

No-Build Traffic Conditions

A future “no-build” condition was developed to identify future traffic operations with other growth and development in the area, but not including the proposed Parkside Shops mixed-use development. This allows the traffic impact of the subject development to be isolated from the future conditions that will exist whether or not this project is developed.

No Build Traffic Volumes

Historic Georgia DOT AADT volume counts were obtained at selected count stations in Sandy Springs for the five years from 2015 through 2019. Table 3 presents the historic Georgia DOT counts and the annual growth rates between the counts.

Table 3 – Historic Georgia DOT Traffic Volume Counts and Annual Growth Rates

Year	Roswell S of Hammond	Annual Growth	Hammond W of Sandy Spr	Annual Growth	Sandy Spr Cir S of Hildebrand	Annual Growth	Mt Vernon W of Long Island	Annual Growth	Johnson Fy W of Sandy Spr Cir	Annual Growth
Station	121-5118		121-5986		121-6016		121-5657		121-6044	
2015	40,100		11,600		7,960		14,600		16,200	
2016	41,400	3.2%	11,100	-4.3%	8,150	2.4%	15,100	3.4%	16,700	3.1%
2017	35,700	-13.8%	11,800	6.3%	7,660	-6.0%	13,700	-9.3%	17,700	6.0%
2018	35,600	-0.3%	11,800	0.0%	7,780	1.6%	13,700	0.0%	16,200	-8.5%
2019	35,900	0.8%	11,900	0.8%	7,930	1.9%	13,800	0.7%	16,300	0.6%
Avg Growth		-2.7%		0.6%		-0.1%		-1.4%		0.2%

All of the Georgia DOT count data was collected pre-COVID-19 and reveal trends that were occurring before the pandemic hit. It is reasonable to expect that these trends will resume from the starting point of the adjusted “existing” 2020 volumes presented previously. The Georgia DOT count data shows overall decreasing trends at three of the five count stations, with the last year of data showing low positive growth at all locations. Considering this data, and recognizing that the “existing” condition already adjusted the intersection counts significantly upward to a logical post-pandemic level, it was decided to increase those “existing” volumes by an annual growth factor of 1.0% per year for a five year period while the proposed Parkside Shops development is built-out and occupied. This equates to an overall increase in the counted, adjusted volumes of 5.1% to represent general growth trends that can be reasonably expected to occur during the development of this project. The counted and adjusted 2020 traffic volumes were increased by the 5.1% growth factor. The results are the no-build volumes that will be at each study intersection at full buildout of the Parkside Shops project, but not including the project’s trips. The traffic volume worksheets in Appendix A show the no-build trip calculations at each study intersection.

Planned and Programmed Transportation Infrastructure Improvements

Transportation improvements that are planned or programmed in the vicinity of the Parkside Shops development, or which may affect traffic volumes or travel patterns at the study intersections, were researched in the Sandy Springs Transportation Improvements website, the Atlanta Regional Commission's (ARC's) Regional Transportation Plan (RTP) website, and the Georgia DOT projects website. The following projects were identified:

Hammond Drive Widening – This project consists of the widening of Hammond Drive from two to four lanes from Roswell Road to Glenridge Drive. This project is planned to be completed before 2030. This traffic study includes projections of Parkside Shops site trips on Hammond Drive to and from the east, including to/from eastern Sandy Springs and Dunwoody and to/from the north on GA 400. The widening project can be expected to improve operations along this corridor which could potentially attract some latent demand – trips that would use this route, but currently avoid it due to congestion. However, this is somewhat speculative and its effects would not be expected until after the future analysis year in this traffic study. Therefore, no additional site trips were assigned to this route and no shifting of travel patterns were projected as a result of this widening. Additionally, no changes in lane geometry were modeled at the intersection of Roswell Road / Hammond Drive.

Sandy Springs Circle Improvements – This project is occurring along the west side of Sandy Springs Circle from north of Hammond Drive to Roswell Road. The west side of Sandy Springs Circle will include a two foot curb and gutter, a six foot landscape strip, a 12-foot wide multi-purpose path, and a two foot wide tree/utility strip. A proposed shoulder on the east side of the road will include a two foot curb and gutter, five foot sidewalk, and one foot tree/utility strips. Sidewalks will be ADA accessible. This project has begun construction. No changes in volume projections or vehicular travel patterns were made in this traffic study for this project.

No-Build Intersection Operations

Each study intersection was re-evaluated for a future 2025 no-build condition, using the no-build volumes, as described above. The results of the operational analysis are shown in Table 4. Computer printouts containing detailed results of the analysis are located in Appendix D. Levels of service and delays are provided for each overall intersection and for each approach or controlled movement. Intersections or approaches that “fail” (operate at LOS E or F) are shown in bold type.

Table 4 – No-Build Intersection Operations

Intersection / Approach	A.M. Peak Hour		P.M. Peak Hour	
	LOS	Delay (s/veh)	LOS	Delay (s/veh)
1. Hammond Drive at Sandy Springs Circle	B	17.9	C	22.3
northbound approach	A	7.2	B	16.6
southbound approach	A	7.1	B	16.3
eastbound approach	C	24.9	C	26.9
westbound approach	C	22.7	C	24.4
2. Hammond Drive at Hammond Exchange West Access	A	0.8	A	3.6
northbound approach	B	13.6	D	34.5
westbound left turn	A	8.6	A	9.1
3. Hammond Drive at Hammond Exchange Signalized Access	B	17.4	B	18.3
northbound approach	A	5.8	B	14.3
southbound approach	A	6.1	B	11.2
eastbound approach	B	17.1	B	17.8
westbound approach	C	20.9	C	22.0
4. Roswell Road at Hammond Drive	D	41.9	F	97.3
northbound approach	C	34.2	F	104.9
southbound approach	C	34.6	F	94.1
eastbound approach	E	64.2	F	98.1
westbound approach	D	52.8	F	89.1
5. Roswell Road at Parkside Access / Lowes Access	C	16.1	E	36.1
northbound left turn (entering Parkside)	B	11.6	C	16.0
southbound left turn (entering Lowes)	B	13.6	B	14.9
eastbound left/through (exiting Parkside)	F	127.6	F	NA*
eastbound right turn (exiting Parkside)	B	13.6	C	19.9
westbound approach (exiting Lowes)	F	NA*	F	NA*
6. Roswell Road at Cliftwood Drive / Carpenter Drive	C	21.0	C	32.2
northbound approach	B	13.9	C	23.9
southbound approach	B	13.4	C	22.2
eastbound approach	F	83.3	F	94.9
westbound approach	E	70.6	E	69.4
7. Cliftwood Drive at Parkside East Access	A	0.7	A	2.1
southbound approach (exiting Parkside)	B	10.1	B	11.2
eastbound left turn (entering Parkside)	A	7.6	A	7.8
8. Cliftwood Drive at Parkside West Access	A	0.6	A	0.4
southbound approach (exiting Parkside)	A	9.8	B	10.1
eastbound left turn (entering Parkside)	A	0.0	A	7.8
<i>Table 4 continued on next page</i>				

9. Sandy Springs Circle at Cliftwood Drive	B	11.9	B	13.8
northbound approach	B	10.2	B	11.9
southbound approach	A	5.8	A	8.1
eastbound approach	C	20.7	B	19.8
westbound approach	B	18.9	C	21.7
10. Sandy Springs Circle at Parkside South Access	A	0.4	A	1.0
southbound left turn (entering Parkside)	A	7.6	A	7.9
westbound approach (exiting Parkside)	A	9.5	B	10.5
11. Sandy Springs Circle at Parkside North Access	A	0.6	A	1.3
southbound left turn (entering Parkside)	A	7.7	A	8.1
westbound approach (exiting Parkside)	A	9.6	A	10.1

*NA=delay exceeds model capabilities

The 2025 no-build analysis shows similar operations to the existing analysis, with most intersections continuing to operate acceptably. The high delays in the Roswell Road corridor will generally increase. A discussion of each study intersection is provided in the Discussion of Results and Recommendations section of this report.

Project Traffic Characteristics

This section describes the anticipated traffic characteristics of the proposed Parkside Shops mixed-use development, including a site description, how much traffic the project will generate, and where that traffic will travel.

Project Description

The proposed development will include a mix of buildings with approximately 71,500 square feet of loft office, approximately 55,400 square feet of retail/restaurant, and approximately 255 multi-family residential units. Vehicular access will be provided at two existing driveways on Sandy Springs Circle, and two existing and one new driveway on Cliftwood Drive. There will be interparcel vehicular connectivity via the existing ramp to the existing, developed east side of the Parkside Shops shopping center as well as to the existing Hammond Exchange shopping center to the north. The site plan is presented in Figure 3.



Figure 3 – Site Plan

Trip Generation

The volume of traffic that will be generated by the proposed mixed-use development was calculated using the equations in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition with Supplement* (the current edition). ITE Land Use 710 – General Office Building, ITE Land Use 820 – Shopping Center, and ITE Land Use 221 – Multi-Family Residential (Mid-Rise) were chosen as representative of the proposed development.

Three adjustments were made to the gross trips to account for 1) the multi-use character of the project, 2) pedestrian, bicycle, and transit trips, and 3) retail and restaurant pass-by trips.

The multi-use adjustment accounts for the synergy between compatible land uses within the project, such as an entering office trip in the morning that stops by an on-site restaurant for breakfast or coffee, thus consolidating two of the trips entering the site in the morning, into one trip. The multi-use adjustment was based on the National Cooperative Highway Research Program (NCHRP) *Report 684* and calculated using the spreadsheet associated with that report.

Due to the walkability of Sandy Springs, the proximity of a diverse mix of land uses, as well as the availability of MARTA bus service close to the site, a 10% reduction was made to the gross project trips to account for vehicular trips that are expected to be replaced by walking, bicycle, and transit trips.

Finally, a pass-by adjustment was applied to the retail / restaurant trips to account for trips that are already passing the site in the existing counts, but will be diverted into the site for shopping or dining, then will continue on their trip to their next destination. The ITE *Trip Generation Handbook* cites the average pass-by percentage for shopping centers to be 34% in the p.m. peak hour. A reduced percentage of 24% was applied to the a.m. and 24-hour trips, while the 34% was applied to the p.m. trips.

The trip generation for the proposed Parkside Shops development is summarized in Table 5.

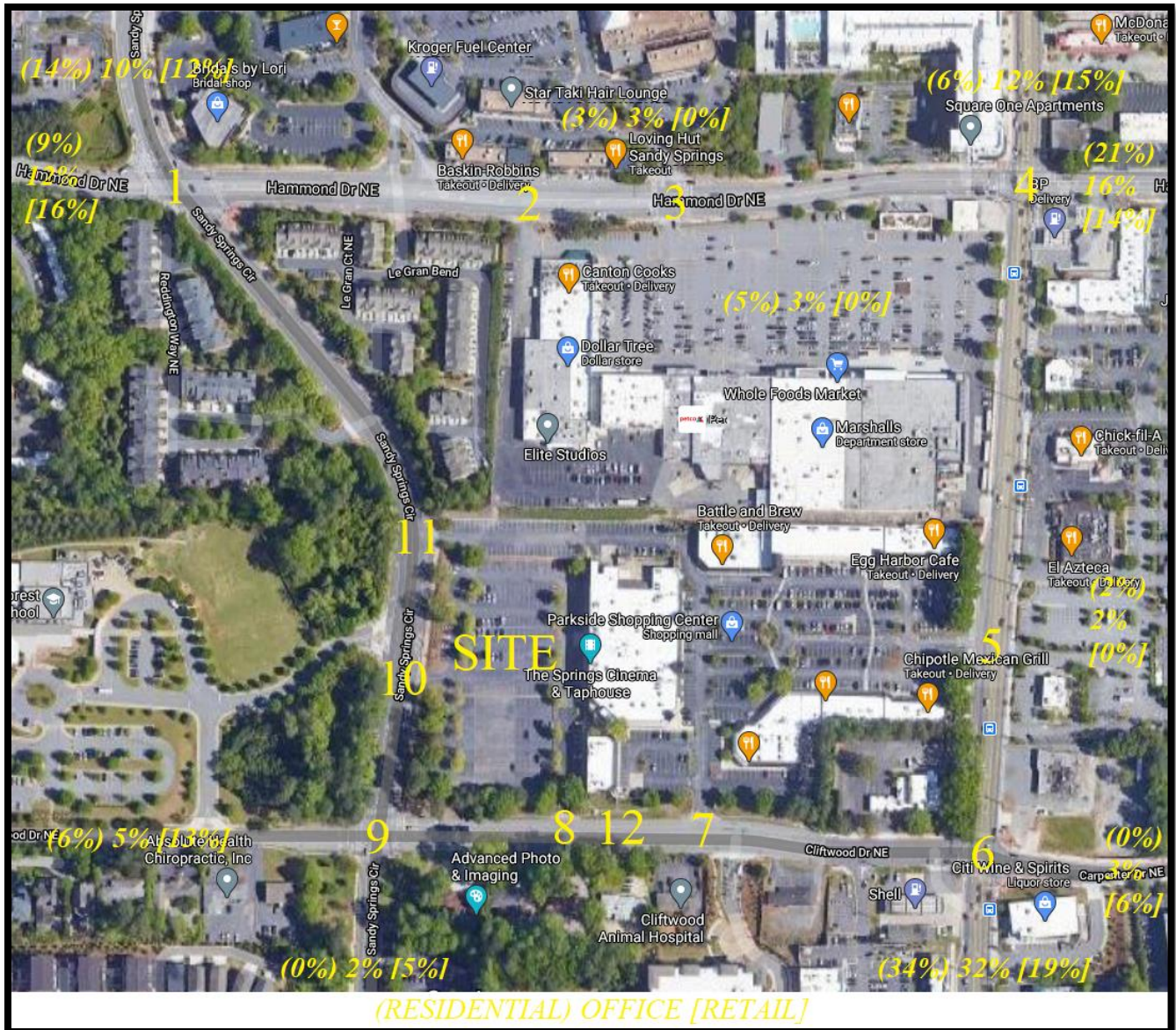
Table 5 – Proposed Parkside Shops Trip Generation

Land Use	ITE Code	Size	A.M. Peak Hour			P.M. Peak Hour			24-Hour
			In	Out	Total	In	Out	Total	2-Way
Residential Total Trips	221	255 units	22	64	86	66	43	109	1,388
-multi-use			-1	-2	-3	-2	-1	-3	-84
-pedestrian/bicycle/transit			<u>-2</u>	<u>-6</u>	<u>-8</u>	<u>-6</u>	<u>-4</u>	<u>-10</u>	<u>-130</u>
Residential New Trips			19	56	75	58	38	96	1,174
Office Total Trips	710	71,500 ft ²	81	13	94	13	70	83	766
-multi-use			-4	-4	-8	-1	-21	-22	-130
-pedestrian/bicycle/transit			<u>-8</u>	<u>-1</u>	<u>-9</u>	<u>-1</u>	<u>-5</u>	<u>-6</u>	<u>-64</u>
Office New Trips			69	8	77	11	44	55	572
Shopping Center Total Trips	820	55,400 ft ²	111	68	179	168	183	351	4,024
-multi-use			-5	-4	-9	-22	-3	-25	-212
-pedestrian/bicycle/transit			-11	-6	-17	-15	-18	-33	-382
-pass-by		24%/34%/24%	<u>-23</u>	<u>-14</u>	<u>-37</u>	<u>-45</u>	<u>-55</u>	<u>-100</u>	<u>-824</u>
Shopping Center New Trips			<u>72</u>	<u>44</u>	<u>116</u>	<u>86</u>	<u>107</u>	<u>193</u>	<u>2,606</u>
Parkside Shops New Trips			160	108	268	155	189	344	4,352

The proposed Parkside Shops mixed-use development will generate 268 new trips in the morning peak hour, 344 new trips in the evening peak hour, and 4,352 new daily trips.

Trip Distribution and Assignment

The trip distribution percentages indicate what proportion of the project's new trips will travel to and from various directions. These percentages were developed based on the locations and proximity of likely trip origins and destinations and the routes of travel to and from those areas. Three new distribution percentages were developed, one each for the office trips, the retail new trips, and the residential trips. The new-trip percentages to and from both the office and the retail are based on population densities and distances of those populations from the site. However, the office distribution includes a much larger geographic area, using the logic that people will generally travel greater distances for employment than for shopping and dining. The office trips also, therefore, give greater weight to the routes of longer-distance travel to the site, including Interstate 285 and GA 400, while the retail/restaurant trips give greater weight to more local trips. The residential trip distribution is based on the locations of employment centers, schools, and retail shopping. The retail pass-by assignment percentages are based on the existing traffic flows passing the site. These include the flows on Roswell Road. Figure 4 shows the new-trip distribution percentages for the office, the retail/restaurants, and the residential. Figure 5 presents the project-generated trips at each study intersection. Appendix A includes traffic volume worksheets that show the project's trips assigned by movement, at each study intersection.



Parkside Shops Sandy Springs Traffic Impact Study

MARC R ACAMPORA, PE, LLC
TRAFFIC ENGINEERING

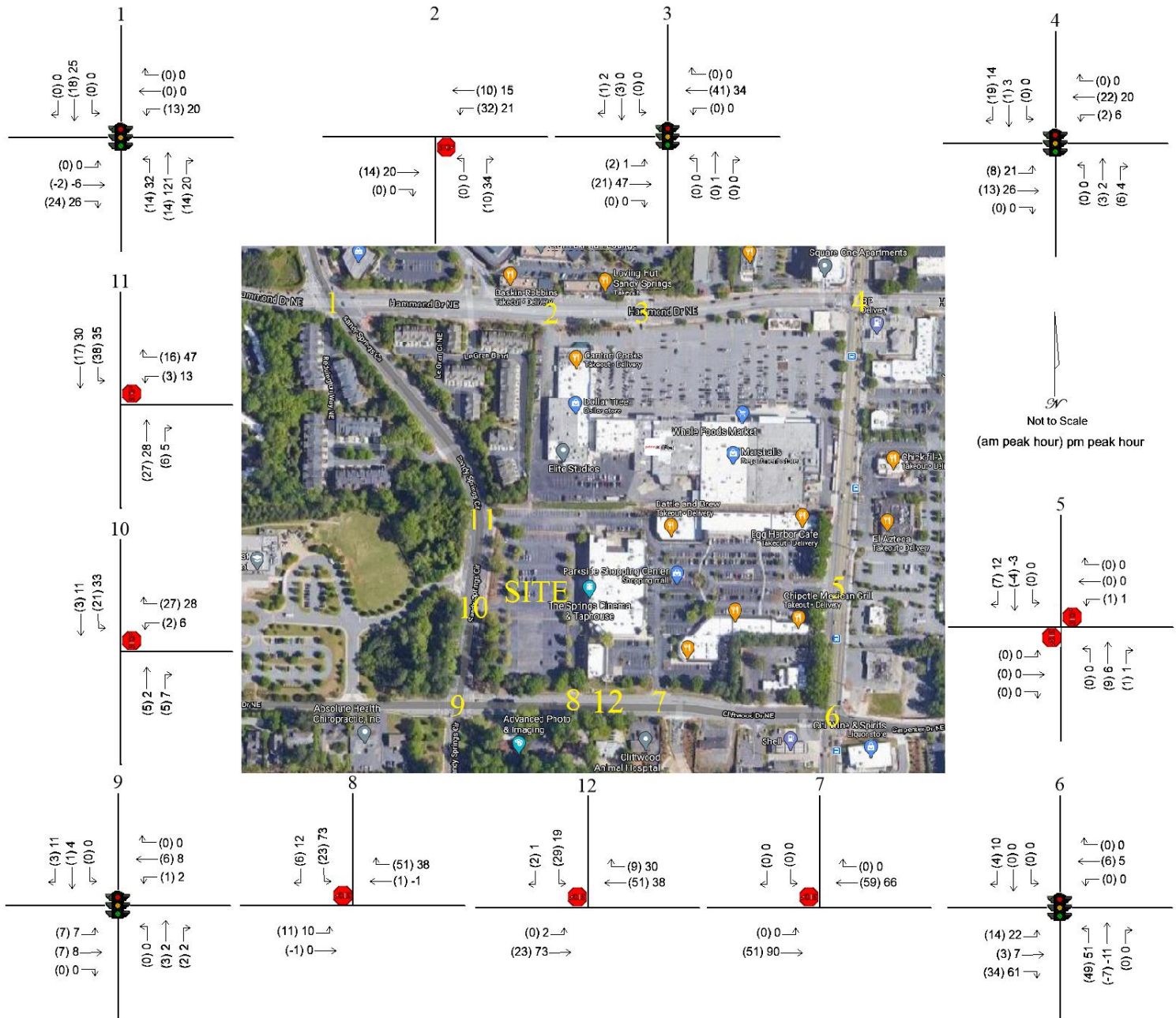


Figure 5 – Project-Generated Weekday A.M. and P.M. Peak Hour Trips

Future Traffic Conditions

A future “build” condition was developed for the anticipated project build-out year of 2025. The build volumes consist of the no-build volumes plus the trips that will be generated by the proposed Parkside Shops development. The future volumes are shown in Figure 6.

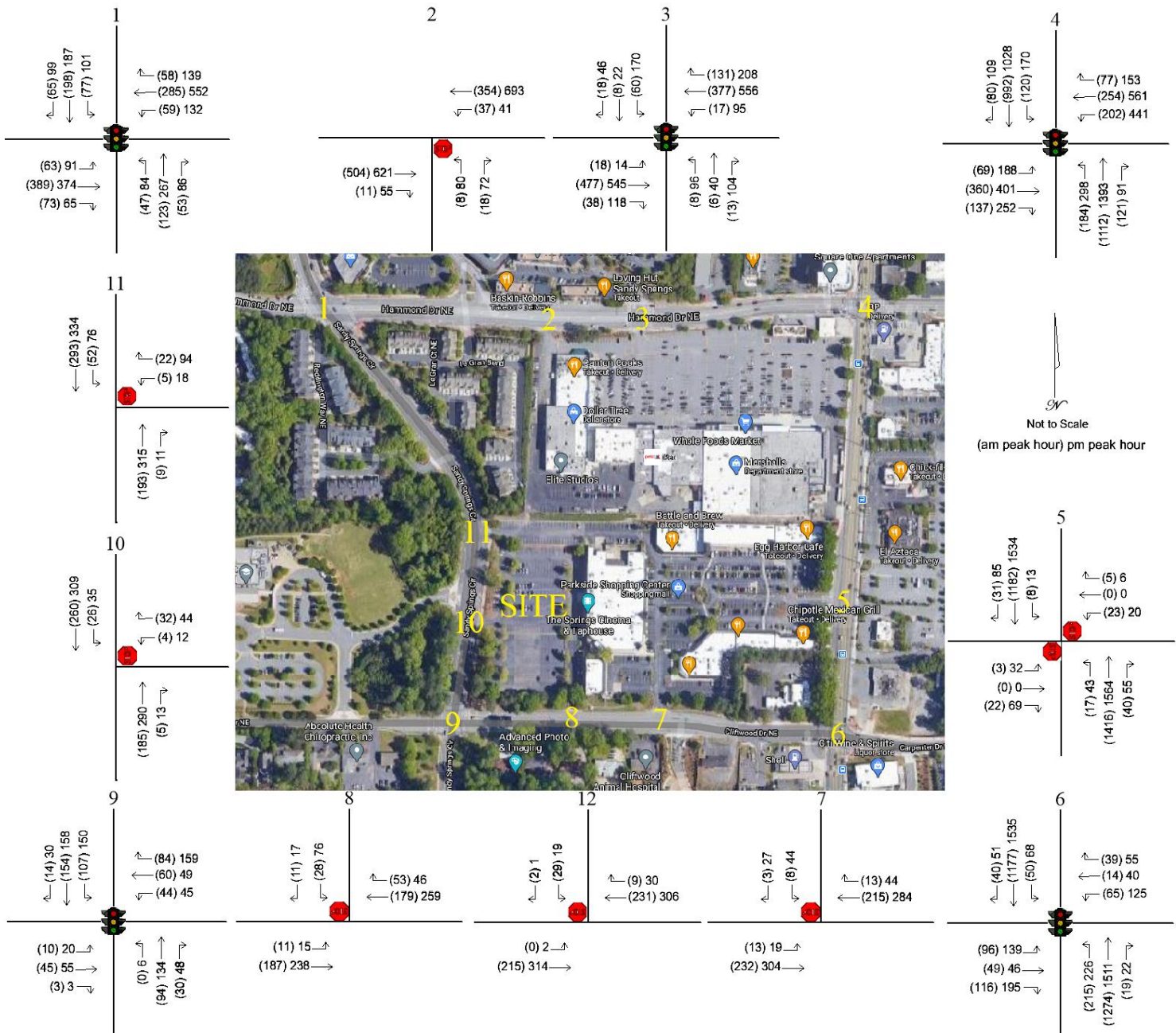


Figure 6 – Future Weekday A.M and P.M. Peak Hour Traffic Volumes

Future Intersection Operations

An operational analysis was performed for the anticipated 2025 project build-out conditions. Table 6 presents the results the future analysis. Computer printouts containing detailed results of the analysis are located in Appendix E. Levels of service and delays are provided for each overall intersection and for each approach or controlled movement. Intersections or approaches that “fail” (operate at LOS E or F) are shown in bold type.

Table 6 – Future Intersection Operations

Intersection / Approach	A.M. Peak Hour		P.M. Peak Hour	
	LOS	Delay (s/veh)	LOS	Delay (s/veh)
1. Hammond Drive at Sandy Springs Circle	B	18.0	C	23.1
northbound approach	A	8.4	B	18.1
southbound approach	A	8.1	B	17.4
eastbound approach	C	24.7	C	27.5
westbound approach	C	22.9	C	25.3
2. Hammond Drive at Hammond Exchange West Access	A	1.4	A	5.7
northbound approach	B	13.7	E	45.0
westbound left turn	A	8.7	A	9.3
3. Hammond Drive at Hammond Exchange Signalized Access	B	16.8	B	18.2
northbound approach	A	6.3	B	15.8
southbound approach	A	6.7	B	12.2
eastbound approach	B	16.3	B	17.3
westbound approach	C	20.2	C	21.3
4. Roswell Road at Hammond Drive	D	43.4	F	101.9
northbound approach	D	35.5	F	106.0
southbound approach	D	36.2	F	106.1
eastbound approach	E	65.9	F	95.6
westbound approach	D	52.9	F	96.1
5. Roswell Road at Parkside Access / Lowes Access	C	17.3	D	37.2
northbound left turn (entering Parkside)	B	11.6	C	16.1
southbound left turn (entering Lowes)	B	13.6	B	15.0
eastbound left/through (exiting Parkside)	F	127.6	F	NA*
eastbound right turn (exiting Parkside)	B	13.6	C	19.8
westbound approach (exiting Lowes)	F	NA*	F	NA*
6. Roswell Road at Cliftwood Drive / Carpenter Drive	C	25.2	D	42.8
northbound approach	B	17.0	C	31.35
southbound approach	B	17.0	C	30.4
eastbound approach	F	88.3	F	118.8
westbound approach	E	67.1	E	71.1
<i>Table 6 continued on next page</i>				

7. Cliftwood Drive at Parkside East Access	A	0.6	A	1.8
southbound approach (exiting Parkside)	B	10.8	B	12.7
eastbound left turn (entering Parkside)	A	7.8	A	8.1
8. Cliftwood Drive at Parkside West Access	A	1.2	A	2.5
southbound approach (exiting Parkside)	B	10.6	B	12.8
eastbound left turn (entering Parkside)	A	7.8	A	8.0
9. Sandy Springs Circle at Cliftwood Drive	B	12.4	B	14.1
northbound approach	B	10.3	B	12.3
southbound approach	A	5.8	A	8.5
eastbound approach	C	20.7	B	19.7
westbound approach	B	19.5	C	21.7
10. Sandy Springs Circle at Parkside South Access	A	1.3	A	1.5
southbound left turn (entering Parkside)	A	7.7	A	8.1
westbound approach (exiting Parkside)	A	9.4	B	10.8
11. Sandy Springs Circle at Parkside North Access	A	1.4	A	2.4
southbound left turn (entering Parkside)	A	7.9	A	8.3
westbound approach (exiting Parkside)	A	10.0	B	11.7
12. Cliftwood Drive at Parkside New Access	A	0.9	A	0.5
southbound approach (exiting Parkside)	B	11.3	B	12.4
eastbound left turn (entering Parkside)	A	0.0	A	8.0

*NA=delay exceeds model capabilities

The analysis of the future condition reveals continued generally-acceptable operations at most study intersections, with the same exceptions as identified in the no-build analysis. Additionally, the northbound approach exiting the Hammond Exchange unsignalized west access drops to LOS E in the future p.m. peak hour. The next section of this report contains a discussion of the findings at each study intersection.

Discussion of Results and Recommendations

The following is a discussion of the findings and the recommendations at each study intersection:

1. **Hammond Drive at Sandy Springs Circle** – This intersection operates acceptably in all study time periods. No changes are recommended.
2. **Hammond Drive at Hammond Exchange West Access** – This unsignalized west access for Hammond Exchange currently operates acceptably with some side street delays in the p.m. peak hour (existing LOS D approach delay). The proposed vehicular connection between the Parkside Shops project and the rear of Hammond Exchange would create a route of travel from the site directly to and from Hammond Drive. Some site trips could be expected to use this route while some will stay on Hammond Drive and Sandy Springs Circle directly to the site accesses on Sandy Springs Circle. The future analysis projects that the northbound approach exiting the driveway will drop to LOS E in the p.m. peak hour. This is not unusual on a side street stop sign controlled approach at a busy throughfare such as Hammond Drive. Mitigation of the LOS E could include signalization of this access. However, given that there is already a signalized access at the Hammond Exchange east driveway, it is improbable that a signal would be allowed at this western access, and volumes are not sufficient to satisfy the volume-based signal warrants. Therefore, pursuit of a signal here is not recommended. The northbound approach has a steep uphill grade at Hammond Drive and the proximity of the east/west driving aisle and buildings may preclude reducing this grade. This grading should be reviewed to determine if any grade reduction is feasible.

The other issue at this access is the westbound left turn movement from Hammond Drive. The existing left turn volume here is a moderate 20 vehicles in the p.m., but the connection to the Parkside Shops will increase this volume. The left turn lane striping on Hammond Drive positions these left turners adjacent to the eastbound left turn lane for the CityWalk/Kroger shopping center access or, alternatively, these westbound left turners were observed to use this eastbound left turn lane in the wrong direction. The eastbound left turn lane for CityWalk/Kroger provides approximately 200 feet of storage for the moderate eastbound left turn volume (15 a.m., 12 p.m.). Consideration should be given to restriping this lane to split the lane to also provide a westbound left turn lane for Hammond Exchange. Alternatively, westbound left turns could be prohibited at this access. This somewhat reduces the value of the proposed vehicular connection from the Parkside Shops development and may affect Hammond Exchange circulation, particularly for delivery vehicles that may access the rear (west side) of the site from this driveway. However, the adjacent signalized intersections operate well and can accommodate the shifting of the westbound left turn volumes both that exist and that are projected at this access.

The internal circulation through the Hammond Exchange parking lot merits review. The north/south route behind the buildings at the west end of Hammond Exchange will become the route of travel from the site to Hammond Drive. The driving aisle parallel to Hammond Drive, which connects this north/south route to the rest of the Hammond Exchange parking lot is striped and signed as one-way westbound. Converting this aisle to two-way operations would allow for Parkside Shops trips to connect to the Hammond Exchange parking lot

and provide access to the signal at the Hammond Exchange east access. The Hammond Exchange parking lot and driving aisle striping is incorrect at several locations. Specifically, striping that separates opposing flows should be yellow while striping between flows in the same direction should be white. Centerline striping and center channelizing islands should, therefore, be yellow while parking spaces and parking lot islands, lane lines between lanes in the same direction, stop bars, and directional arrows should be white. Conforming to this standard is important to prevent violating of driver expectation and it is recommended that the Hammond Exchange parking striping be reviewed and brought into conformity with this standard.

3. **Hammond Drive / Hammond Exchange Signalized East Access** – This intersection operates well and will continue to do so in the future. See the discussion directly above concerning striping within the Hammond Exchange parking lot and driving aisles. No mitigation is identified for this intersection.
4. **Roswell Road / Hammond Drive** – Roswell Road is the primary roadway through this area and its intersection with Hammond Drive becomes congested during peak times, particularly the p.m. peak. Infrastructure improvements here were tested to identify mitigation. Aside from widening Roswell Road to three lanes in each direction, the most beneficial improvement that can be made at this intersection would be the addition of a second westbound left turn lane on Hammond Drive. The addition of eastbound/westbound through capacity on Hammond Drive would also be beneficial. The capacity constraints and resulting congestion at this intersection are an existing condition and these system improvements should be evaluated in the context of an analysis of corridor operations, and considered whether or not the proposed Parkside shops mixed-use development is built.
5. **Roswell Road / Parkside Shops Access / Lowes Access** – The side street approaches incur high delays exiting both the Parkside Shops and the Lowes shopping center. This is not unusual on stop sign controlled side street approaches at major thoroughfares such as Roswell Road. Mitigation would include signalization. However, the side street approach volumes are not high enough to satisfy volume-based signal warrants and it is considered improbable that Georgia DOT would permit a signal at this location. Therefore, no mitigation was identified for this intersection.

As discussed under Intersection #2, above, for Hammond Exchange, the striping in the Parkside Shops parking lot and driving aisles does not conform to striping color standards. In this parking lot, the most notable concern is the centerline striping in the driving aisles, which is white. Since these stripes separate flows in opposite directions, they should be yellow. The visual cue given to motorists in these driving aisles is that these are one-way and therefore motorists can drive on either side of the white centerline stripe, which is a hazardous condition. It is recommended that the striping throughout this shopping center be reviewed and brought into conformity with striping standards.

6. **Roswell Road / Cliftwood Drive / Carpenter Drive** – This overall intersection operates acceptably, but the side street approaches on Cliftwood Drive and Carpenter Drive experience high delays. This is due to the signal timing heavily favoring Roswell Road, which is appropriate due to the significantly higher volumes on Roswell Road. Adjusting the signal timing to allocate more greentime to the side street approaches would reduce those

delays but would increase delays, and could adversely affect platooning, along Roswell Road. Therefore, reallocating greentime to the side streets is not recommended. The eastbound approach includes the sharing of a lane for the through and right turn movements. While the eastbound through volume is moderate, the right turn volume is projected at almost 200 vehicles in the p.m. peak hour which merits consideration of adding an eastbound exclusive right turn lane. A right turn overlap phase could accommodate this lane which would provide a protected green arrow for right turners concurrently with the protected portion of the phasing for the northbound left turn movement. Adding this lane would improve the side street approach delays from LOS F to LOS E (it is assumed that the signal timing would still continue to heavily favor Roswell Road).

7. **Cliftwood Drive / Parkside Shops East Access** – This intersection operates well currently and will continue to do so in the future. The proposed development's impact here will be the addition of eastbound and westbound through volumes on Cliftwood Drive and this will not notably impact operations at this intersection. As discussed above, the parking lot and driving aisle striping throughout the Parkside Shops shopping center should be brought into conformity with applicable standards.
8. **Cliftwood Drive / Parkside Shops West Access** – This intersection will receive the most entering and exiting trips from the proposed development (Intersection #11 will experience higher overall entering and exiting volumes, but many of those trips are existing vehicles accessing the east side of Parkside Shops using the ramp). The westbound right turn movement merits consideration of an exclusive right turn lane. However the rightmost westbound lane on Cliftwood Drive already transitions to an exclusive right turn lane through this intersection approaching Sandy Springs Circle. This lane would also serve as the right turn lane for the Parkside Shops project. The volumes on Cliftwood Drive are moderate and additional lane capacity at the Parkside Shops access is not needed. This access should continue to operate with one entering and one exiting lane and the exiting (southbound) approach should continue to be controlled by side street stop sign and accompanying stop bar.
9. **Sandy Springs Circle / Cliftwood Drive** – This intersection operates well in all analysis time periods. The proposed Parkside Shops development will have minimal impact at this intersection because most site trips will be oriented to the east and north and will generally use site driveways closest to their arrival or departure direction. The primary project trips through this intersection will be trips to/from the west on Cliftwood Drive and Lake Forrest Drive and to/from the south on Sandy Springs Circle and Allen Road, which will both be relatively low. No mitigation is identified for this intersection.
10. **Sandy Springs Circle / Parkside Shops South Access** – This intersection will visually appear as the main entrance to the project. However, since most project trips will be oriented to/from the east and north, most project trips will be intercepted by the access on Cliftwood Drive and the north access on Sandy Springs Circle. The trips entering and exiting the site at this access will be modest and no mitigation is identified here. It is noted that the right-in/right-out (RIRO) access to Lake Forest Elementary School is located on the west side of Sandy Springs Circle, slightly offset to the north of this project access. Relocating the project access to the north to align with the school access has minimal value since there are no left turn movement conflicts (because the school access is RIRO) and would place this project access closer to the project access to the north. Therefore, it is concluded that relocation of this access is not necessary. This access should continue to operate well with

one entering and one exiting lane and the exiting (westbound) approach should continue to be controlled by side street stop sign and accompanying stop bar.

11. Sandy Springs Circle / Parkside Shops North Access – This intersection will operate as the primary project access for trips to/from the north and west. These project trips will share this access with the existing trips accessing the east side of Parkside Shops via the ramp. The operational analysis shows acceptable traffic operations here with low delays in the future. The southbound left turn volume entering this access merits consideration of an exclusive left turn lane on Sandy Springs Circle. However, the through volumes on Sandy Springs Circle are moderate and there are two southbound lanes, such that the left turn movement causes, and will cause, minimal impedance to the through traffic. Therefore, while it is not specifically recommended that this left turn lane should not be built, the addition of this lane is not considered critical. This access should continue to operate well with one entering and one exiting lane and the exiting (westbound) approach should continue to be controlled by side street stop sign and accompanying stop bar.

12. Cliftwood Drive / Parkside Shops New Access – This intersection will be inserted between the existing East Access and West Access (intersections 7 and 8). The operations here are expected to be acceptable. However, it is noted that this access is positioned extremely close to the West Access and may violate minimum driveway spacing standards. As with intersection 8, the westbound right turn movement merits consideration of an exclusive right turn lane, but the rightmost westbound lane on Cliftwood Drive already transitions to an exclusive right turn lane through this intersection approaching Sandy Springs Circle. This lane would also serve as the right turn lane for the Parkside Shops project. This access should include one entering and one exiting lane and the exiting (southbound) approach should be controlled by side street stop sign and accompanying stop bar.

The project anticipates vehicular and pedestrian connections to Hammond Exchange. The primary benefit to these connections will be interparcel connectivity. The connections would link all three shopping centers involved in this study and this has value. However, the need for project vehicles to access Hammond Drive through the rear of Hammond Exchange is not essential for a traffic operations standpoint.

The project civil/site engineer is advised to comply with all applicable City of Sandy Springs access and site design standards.

Appendix A

Traffic Count Data and Volume Worksheets

Parkside Traffic Impact Study
City of Sandy Springs, Georgia

July 2021

Intersection: 1. Hammond Drive at Sandy Springs Circle

Weekday A.M. Peak Hour

	Northbound Sandy Springs Circle				Southbound Sandy Springs Circle				Eastbound Hammond Drive				Westbound Hammond Drive			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
COSS Count (Wednesday, May 8, 2013 7:45-8:45)	6	40	29	75	80	155	86	321	63	507	30	600	38	318	53	409
COSS Count (Thursday, May 10, 2018 7:45-8:45)	27	70	37	134	60	168	84	312	78	564	45	687	45	274	44	363
Counted Volumes (Tuesday, October 6, 2020 7:45-8:45)	21	69	25	115	49	114	41	204	40	248	31	319	29	181	37	247
Calibration with Previous Counts	150%	150%	150%		150%	150%	150%		150%	150%	150%		150%	150%	150%	
Adjusted Existing Volumes	32	104	38	173	74	171	62	306	60	372	47	479	44	272	56	371
Total Annual Background Growth	5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%	
No-Build Volumes	33	109	39	181	77	180	65	322	63	391	49	503	46	285	58	389
Proposed Parkside Retail New Trips	7	5	6	18	0	8	0	8	0	0	12	12	10	0	0	10
Proposed Parkside Retail Pass-By Trips	1	0	0	1	0	0	0	0	0	-2	2	0	0	0	0	0
Proposed Parkside Office Trips	1	1	0	2	0	7	0	7	0	0	8	8	0	0	0	0
Proposed Parkside Residential Trips	5	8	8	21	0	3	0	3	0	0	2	2	3	0	0	3
Total Parkside Trips	14	14	14	42	0	18	0	18	0	-2	24	22	13	0	0	13
Build Volumes	47	123	53	223	77	198	65	340	63	389	73	525	59	285	58	402

Weekday P.M. Peak Hour

	Northbound Sandy Springs Circle				Southbound Sandy Springs Circle				Eastbound Hammond Drive				Westbound Hammond Drive			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
COSS Count (Wednesday, May 8, 2013 5:00-6:00)	34	206	84	324	81	116	89	286	53	372	43	468	65	559	123	747
COSS Count (Thursday, May 10, 2018 5:00-6:00)	48	223	86	357	106	155	113	374	194	585	63	842	72	617	103	792
Counted Volumes (Tuesday, October 6, 2020 4:30-5:30)	33	156	42	231	64	103	63	230	58	241	25	324	71	350	88	509
Calibration with Previous Counts	150%	150%	150%		150%	150%	150%		150%	150%	150%		150%	150%	150%	
Adjusted Existing Volumes	50	234	63	347	96	155	95	345	87	362	38	486	107	525	132	764
Total Annual Background Growth	5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%	
No-Build Volumes	52	246	66	364	101	162	99	363	91	380	39	511	112	552	139	802
Proposed Parkside Retail New Trips	17	12	15	44	0	10	0	10	0	0	13	13	12	0	0	12
Proposed Parkside Retail Pass-By Trips	7	0	0	7	0	0	0	0	0	-6	6	0	0	0	0	0
Proposed Parkside Office Trips	5	4	0	9	0	7	0	7	0	0	2	2	0	0	0	0
Proposed Parkside Residential Trips	3	5	5	13	0	8	0	8	0	0	5	5	8	0	0	8
Total Parkside Trips	32	21	20	73	0	25	0	25	0	-6	26	20	20	0	0	20
Build Volumes	84	267	86	437	101	187	99	388	91	374	65	531	132	552	139	822

MARC R. ACAMPORA, PE, LLC

Parkside Traffic Impact Study
City of Sandy Springs, Georgia

July 2021

Intersection: 2. Hammond Drive at Hammond Exchange West Access

Weekday A.M. Peak Hour	Northbound Hammond Exch W Access				Eastbound Hammond Drive			Westbound Hammond Drive		
	L	R	Tot		T	R	Tot	L	T	Tot
Counted Volumes (Tuesday, October 6, 2020 8:00-9:00)	5	5	10		311	7	318	3	218	221
Calibration with Previous Counts	150%	150%			150%	150%		150%	150%	
Adjusted Existing Volumes	8	8	15		467	11	477	5	327	332
Total Annual Background Growth	5.1%	5.1%			5.1%	5.1%		5.1%	5.1%	
No-Build Volumes	8	8	16		490	11	501	5	344	348
Proposed Parkside Retail New Trips	0	7	7		6	0	6	10	10	20
Proposed Parkside Retail Pass-By Trips	0	1	1		0	0	0	3	-3	0
Proposed Parkside Office Trips	0	2	2		0	0	0	19	0	19
Proposed Parkside Residential Trips	0	0	0		8	0	8	0	3	3
Total Parkside Trips	0	10	10		14	0	14	32	10	42
Build Volumes	8	18	26		504	11	515	37	354	390

Weekday P.M. Peak Hour	Northbound Hammond Exch W Access				Eastbound Hammond Drive			Westbound Hammond Drive		
	L	R	Tot		T	R	Tot	L	T	Tot
Counted Volumes (Tuesday, October 6, 2020 4:15-5:15)	51	24	75		381	35	416	13	430	443
Calibration with Previous Counts	150%	150%			150%	150%		150%	150%	
Adjusted Existing Volumes	77	36	113		572	53	624	20	645	665
Total Annual Background Growth	5.1%	5.1%			5.1%	5.1%		5.1%	5.1%	
No-Build Volumes	80	38	118		601	55	656	20	678	698
Proposed Parkside Retail New Trips	0	16	16		15	0	15	13	12	25
Proposed Parkside Retail Pass-By Trips	0	6	6		0	0	0	5	-5	0
Proposed Parkside Office Trips	0	12	12		0	0	0	3	0	3
Proposed Parkside Residential Trips	0	0	0		5	0	5	0	8	8
Total Parkside Trips	0	34	34		20	0	20	21	15	36
Build Volumes	80	72	152		621	55	676	41	693	734

MARC R. ACAMPORA, PE, LLC

Parkside Traffic Impact Study
City of Sandy Springs, Georgia

July 2021

Intersection: 3. Hammond Drive at Hammond Exchange Signalized East Access

Weekday A.M. Peak Hour	Northbound Hammond Exch E Access				Southbound Kroger Access				Eastbound Hammond Drive				Westbound Hammond Drive			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Counted Volumes (Tuesday, October 6, 2020 8:00-9:00)	5	4	8	17	38	3	11	52	10	289	24	323	11	213	83	307
Calibration with Previous Counts	150%	150%	150%		150%	150%	150%		150%	150%	150%		150%	150%	150%	
Adjusted Existing Volumes	8	6	12	26	57	5	17	78	15	434	36	485	17	320	125	461
Total Annual Background Growth	5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%	
No-Build Volumes	8	6	13	27	60	5	17	82	16	456	38	509	17	336	131	484
Proposed Parkside Retail New Trips	0	0	0	0	0	0	0	0	0	13	0	13	0	20	0	20
Proposed Parkside Retail Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proposed Parkside Office Trips	0	0	0	0	0	3	0	3	0	2	0	2	0	19	0	19
Proposed Parkside Residential Trips	0	0	0	0	0	0	1	1	2	6	0	8	0	2	0	2
Total Parkside Trips	0	0	0	0	0	3	1	4	2	21	0	23	0	41	0	41
Build Volumes	8	6	13	27	60	8	18	86	18	477	38	532	17	377	131	525

Weekday P.M. Peak Hour	Northbound Hammond Exch E Access				Southbound Kroger Access				Eastbound Hammond Drive				Westbound Hammond Drive			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Counted Volumes (Tuesday, October 6, 2020 4:00-5:00)	61	25	66	152	108	14	28	150	8	316	75	399	60	331	132	523
Calibration with Previous Counts	150%	150%	150%		150%	150%	150%		150%	150%	150%		150%	150%	150%	
Adjusted Existing Volumes	92	38	99	228	162	21	42	225	12	474	113	599	90	497	198	785
Total Annual Background Growth	5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%	
No-Build Volumes	96	39	104	240	170	22	44	236	13	498	118	629	95	522	208	825
Proposed Parkside Retail New Trips	0	0	0	0	0	0	0	0	0	31	0	31	0	25	0	25
Proposed Parkside Retail Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proposed Parkside Office Trips	0	1	0	1	0	0	0	0	0	12	0	12	0	3	0	3
Proposed Parkside Residential Trips	0	0	0	0	0	0	2	2	1	4	0	5	0	6	0	6
Total Parkside Trips	0	1	0	1	0	0	2	2	1	47	0	48	0	34	0	34
Build Volumes	96	40	104	241	170	22	46	238	14	545	118	677	95	556	208	859

MARC R. ACAMPORA, PE, LLC

Parkside Traffic Impact Study
City of Sandy Springs, Georgia

July 2021

Intersection: 4. Roswell Road at Hammond Drive

Weekday A.M. Peak Hour	Northbound Roswell Road				Southbound Roswell Road				Eastbound Hammond Drive				Westbound Hammond Drive			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Counted Volumes (Tuesday, October 6, 2020 7:45-8:45)	117	879	73	1069	76	786	39	901	39	220	87	346	127	147	49	323
Calibration with Previous Counts	150%	120%	150%		150%	120%	150%		150%	150%	150%		150%	150%	150%	
Adjusted Existing Volumes	176	1055	110	1340	114	943	59	1116	59	330	131	519	191	221	74	485
Total Annual Background Growth	5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%	
No-Build Volumes	184	1109	115	1408	120	991	61	1173	61	347	137	545	200	232	77	509
Proposed Parkside Retail New Trips	0	0	0	0	0	0	11	11	7	6	0	13	0	9	0	9
Proposed Parkside Retail Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proposed Parkside Office Trips	0	0	0	0	0	0	8	8	1	1	0	2	0	11	0	11
Proposed Parkside Residential Trips	0	3	6	9	0	1	0	1	0	6	0	6	2	2	0	4
Total Parkside Trips	0	3	6	9	0	1	19	20	8	13	0	21	2	22	0	24
Build Volumes	184	1112	121	1417	120	992	80	1193	69	360	137	566	202	254	77	533

Weekday P.M. Peak Hour	Northbound Roswell Road				Southbound Roswell Road				Eastbound Hammond Drive				Westbound Hammond Drive			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Counted Volumes (Tuesday, October 6, 2020 4:45-5:45)	189	1103	55	1347	108	813	60	981	106	238	160	504	276	343	97	716
Calibration with Previous Counts	150%	120%	150%		150%	120%	150%		150%	150%	150%		150%	150%	150%	
Adjusted Existing Volumes	284	1324	83	1690	162	976	90	1228	159	357	240	756	414	515	146	1074
Total Annual Background Growth	5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%	
No-Build Volumes	298	1391	87	1776	170	1025	95	1290	167	375	252	795	435	541	153	1129
Proposed Parkside Retail New Trips	0	0	0	0	0	0	13	13	16	15	0	31	0	12	0	12
Proposed Parkside Retail Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proposed Parkside Office Trips	0	0	0	0	0	0	1	1	5	7	0	12	0	2	0	2
Proposed Parkside Residential Trips	0	2	4	6	0	3	0	3	0	4	0	4	6	6	0	12
Total Parkside Trips	0	2	4	6	0	3	14	17	21	26	0	47	6	20	0	26
Build Volumes	298	1393	91	1782	170	1028	109	1307	188	401	252	842	441	561	153	1155

MARC R. ACAMPORA, PE, LLC

Parkside Traffic Impact Study
City of Sandy Springs, Georgia

July 2021

Intersection: 5. Roswell Road at Parkside Shopping Center Access / Lowes Access

Weekday A.M. Peak Hour	Northbound Roswell Road				Southbound Roswell Road				Eastbound Parkside Access				Westbound Lowes Access			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Counted Volumes (Tuesday, October 6, 2020 8:00-9:00)	11	1116	25	1152	5	940	15	960	2	0	14	16	14	0	3	17
Calibration with Previous Counts	150%	120%	150%		150%	120%	150%		150%	150%	150%		150%	150%	150%	
Adjusted Existing Volumes	17	1339	38	1393	8	1128	23	1158	3	0	21	24	21	0	5	26
Total Annual Background Growth	5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%	
No-Build Volumes	17	1407	39	1464	8	1186	24	1217	3	0	22	25	22	0	5	27
Proposed Parkside Retail New Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proposed Parkside Retail Pass-By Trips	0	0	0	0	0	-7	7	0	0	0	0	0	0	0	0	0
Proposed Parkside Office Trips	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Proposed Parkside Residential Trips	0	9	1	10	0	3	0	3	0	0	0	0	0	0	0	0
Total Parkside Trips	0	9	1	10	0	-4	7	3	0	0	0	0	1	0	0	1
Build Volumes	17	1416	40	1474	8	1182	31	1220	3	0	22	25	23	0	5	28

Weekday P.M. Peak Hour	Northbound Roswell Road				Southbound Roswell Road				Eastbound Parkside Access				Westbound Lowes Access			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Counted Volumes (Tuesday, October 6, 2020 4:00-5:00)	27	1235	34	1296	8	1219	46	1273	20	0	44	64	12	0	4	16
Calibration with Previous Counts	150%	120%	150%		150%	120%	150%		150%	150%	150%		150%	150%	150%	
Adjusted Existing Volumes	41	1482	51	1574	12	1463	69	1544	30	0	66	96	18	0	6	24
Total Annual Background Growth	5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%	
No-Build Volumes	43	1558	54	1654	13	1537	73	1623	32	0	69	101	19	0	6	25
Proposed Parkside Retail New Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proposed Parkside Retail Pass-By Trips	0	0	0	0	0	-12	12	0	0	0	0	0	0	0	0	0
Proposed Parkside Office Trips	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Proposed Parkside Residential Trips	0	6	0	6	0	9	0	9	0	0	0	0	1	0	0	1
Total Parkside Trips	0	6	1	7	0	-3	12	9	0	0	0	0	1	0	0	1
Build Volumes	43	1564	55	1661	13	1534	85	1632	32	0	69	101	20	0	6	26

MARC R. ACAMPORA, PE, LLC

Parkside Traffic Impact Study
City of Sandy Springs, Georgia

July 2021

Intersection: 6. Roswell Road at Cliftwood Drive / Carpenter Drive

Weekday A.M. Peak Hour	Northbound Roswell Road				Southbound Roswell Road				Eastbound Cliftwood Drive				Westbound Carpenter Drive			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Counted Volumes (Tuesday, October 6, 2020 8:00-9:00)	105	1016	12	1133	32	933	23	988	52	29	52	133	41	5	25	71
Calibration with Previous Counts	150%	120%	150%		150%	120%	150%		150%	150%	150%		150%	150%	150%	
Adjusted Existing Volumes	158	1219	18	1395	48	1120	35	1202	78	44	78	200	62	8	38	107
Total Annual Background Growth	5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%	
No-Build Volumes	166	1281	19	1466	50	1177	36	1263	82	46	82	210	65	8	39	112
Proposed Parkside Retail New Trips	14	0	0	14	0	0	0	0	0	3	8	11	0	4	0	4
Proposed Parkside Retail Pass-By Trips	7	-7	0	0	0	0	0	0	4	0	4	8	0	0	0	0
Proposed Parkside Office Trips	22	0	0	22	0	0	1	1	0	0	3	3	0	2	0	2
Proposed Parkside Residential Trips	6	0	0	6	0	0	3	3	10	0	19	29	0	0	0	0
Total Parkside Trips	49	-7	0	42	0	0	4	4	14	3	34	51	0	6	0	6
Build Volumes	215	1274	19	1508	50	1177	40	1267	96	49	116	261	65	14	39	118

Weekday P.M. Peak Hour	Northbound Roswell Road				Southbound Roswell Road				Eastbound Cliftwood Drive				Westbound Carpenter Drive			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Counted Volumes (Tuesday, October 6, 2020 4:15-5:15)	111	1207	14	1332	43	1217	26	1286	74	25	85	184	79	22	35	136
Calibration with Previous Counts	150%	120%	150%		150%	120%	150%		150%	150%	150%		150%	150%	150%	
Adjusted Existing Volumes	167	1448	21	1636	65	1460	39	1564	111	38	128	276	119	33	53	204
Total Annual Background Growth	5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%	
No-Build Volumes	175	1522	22	1719	68	1535	41	1644	117	39	134	290	125	35	55	214
Proposed Parkside Retail New Trips	16	0	0	16	0	0	0	0	0	6	19	25	0	5	0	5
Proposed Parkside Retail Pass-By Trips	11	-11	0	0	0	0	0	0	15	0	15	30	0	0	0	0
Proposed Parkside Office Trips	4	0	0	4	0	0	0	0	1	1	14	16	0	0	0	0
Proposed Parkside Residential Trips	20	0	0	20	0	0	10	10	6	0	13	19	0	0	0	0
Total Parkside Trips	51	-11	0	40	0	0	10	10	22	7	61	90	0	5	0	5
Build Volumes	226	1511	22	1759	68	1535	51	1654	139	46	195	380	125	40	55	219

MARC R. ACAMPORA, PE, LLC

Parkside Traffic Impact Study
City of Sandy Springs, Georgia

July 2021

Intersection: 7. Cliftwood Drive at Parkside Shopping Center East Access

Weekday A.M. Peak Hour		Southbound Parkside East Access			Eastbound Cliftwood Drive			Westbound Cliftwood Drive		
		L	R	Tot	L	T	Tot	T	R	Tot
Counted Volumes (Tuesday, October 6, 2020 7:45-8:45)		5	2	7	8	115	123	99	8	107
Calibration with Previous Counts		150%	150%		150%	150%		150%	150%	
Adjusted Existing Volumes		8	3	11	12	173	185	149	12	161
Total Annual Background Growth		5.1%	5.1%		5.1%	5.1%		5.1%	5.1%	
No-Build Volumes		8	3	11	13	181	194	156	13	169
Proposed Parkside Retail New Trips		0	0	0	0	11	11	18	0	18
Proposed Parkside Retail Pass-By Trips		0	0	0	0	8	8	7	0	7
Proposed Parkside Office Trips		0	0	0	0	3	3	25	0	25
Proposed Parkside Residential Trips		0	0	0	0	29	29	9	0	9
Total Parkside Trips		0	0		0	51		59	0	
Build Volumes		8	3	11	13	232	245	215	13	228

Weekday P.M. Peak Hour		Southbound Parkside East Access			Eastbound Cliftwood Drive			Westbound Cliftwood Drive		
		L	R	Tot	L	T	Tot	T	R	Tot
Counted Volumes (Tuesday, October 6, 2020 4:30-5:30)		28	17	45	12	136	148	138	28	166
Calibration with Previous Counts		150%	150%		150%	150%		150%	150%	
Adjusted Existing Volumes		42	26	68	18	204	222	207	42	249
Total Annual Background Growth		5.1%	5.1%		5.1%	5.1%		5.1%	5.1%	
No-Build Volumes		44	27	71	19	214	233	218	44	262
Proposed Parkside Retail New Trips		0	0	0	0	25	25	21	0	21
Proposed Parkside Retail Pass-By Trips		0	0	0	0	30	30	11	0	11
Proposed Parkside Office Trips		0	0	0	0	16	16	4	0	4
Proposed Parkside Residential Trips		0	0	0	0	19	19	30	0	30
Total Parkside Trips		0	0		0	90		66	0	
Build Volumes		44	27	71	19	304	323	284	44	328

MARC R. ACAMPORA, PE, LLC

Parkside Traffic Impact Study
City of Sandy Springs, Georgia

July 2021

Intersection: 8. Cliftwood Drive at Parkside Shopping Center West Access

Weekday A.M. Peak Hour		Southbound Parkside West Access			Eastbound Cliftwood Drive			Westbound Cliftwood Drive		
		L	R	Tot	L	T	Tot	T	R	Tot
Counted Volumes (Tuesday, October 6, 2020 7:30-8:30)		3	3	6	0	119	119	113	1	114
Calibration with Previous Counts		150%	150%		150%	150%		150%	150%	
Adjusted Existing Volumes		5	5	9	0	179	179	170	2	171
Total Annual Background Growth		5.1%	5.1%		5.1%	5.1%		5.1%	5.1%	
No-Build Volumes		5	5	9	0	188	188	178	2	180
Proposed Parkside Retail New Trips		11	4	15	7	0	7	0	18	18
Proposed Parkside Retail Pass-By Trips		9	1	10	1	-1	0	-1	8	7
Proposed Parkside Office Trips		3	0	3	2	0	2	0	25	25
Proposed Parkside Residential Trips		0	1	1	1	0	1	2	0	2
Total Parkside Trips		23	6		11	-1		1	51	
Build Volumes		28	11	38	11	187	198	179	53	232

Weekday P.M. Peak Hour		Southbound Parkside West Access			Eastbound Cliftwood Drive			Westbound Cliftwood Drive		
		L	R	Tot	L	T	Tot	T	R	Tot
Counted Volumes (Tuesday, October 6, 2020 4:30-5:30)		2	3	5	3	151	154	165	5	170
Calibration with Previous Counts		150%	150%		150%	150%		150%	150%	
Adjusted Existing Volumes		3	5	8	5	227	231	248	8	255
Total Annual Background Growth		5.1%	5.1%		5.1%	5.1%		5.1%	5.1%	
No-Build Volumes		3	5	8	5	238	243	260	8	268
Proposed Parkside Retail New Trips		25	8	33	7	0	7	0	21	21
Proposed Parkside Retail Pass-By Trips		32	3	35	2	-2	0	-2	13	11
Proposed Parkside Office Trips		16	0	16	0	0	0	0	4	4
Proposed Parkside Residential Trips		0	1	1	1	2	3	1	0	1
Total Parkside Trips		73	12		10	0		-1	38	
Build Volumes		76	17	93	15	238	253	259	46	305

MARC R. ACAMPORA, PE, LLC

Parkside Traffic Impact Study

City of Sandy Springs, Georgia

July 2021

Intersection: 9. Sandy Springs Circle at Cliftwood Drive

Weekday A.M. Peak Hour	Northbound Sandy Springs Circle				Southbound Sandy Springs Circle				Eastbound Cliftwood Drive				Westbound Cliftwood Drive			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
COSS Count (Thursday, May 10, 2018 7:00-8:00)	17	41	17	75	117	117	4	238	7	40	23	70	33	125	45	203
Counted Volumes (Tuesday, October 6, 2020 7:45-8:45)	0	58	18	76	68	97	7	172	2	24	2	28	27	34	53	114
Calibration with Previous Counts	150%	150%	150%		150%	150%	150%		150%	150%	150%		150%	150%	150%	
Adjusted Existing Volumes	0	87	27	114	102	146	11	258	3	36	3	42	41	51	80	171
Total Annual Background Growth	5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%	
No-Build Volumes	0	91	28	120	107	153	11	271	3	38	3	44	43	54	84	180
Proposed Parkside Retail New Trips	0	2	2	4	0	1	3	4	5	4	0	9	1	3	0	4
Proposed Parkside Retail Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proposed Parkside Office Trips	0	1	0	1	0	0	0	0	2	2	0	4	0	0	0	0
Proposed Parkside Residential Trips	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	3
Total Parkside Trips	0	3	2	5	0	1	3	4	7	7	0	14	1	6	0	7
Build Volumes	0	94	30	125	107	154	14	275	10	45	3	58	44	60	84	187

Weekday P.M. Peak Hour	Northbound Sandy Springs Circle				Southbound Sandy Springs Circle				Eastbound Cliftwood Drive				Westbound Cliftwood Drive			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
COSS Count (Thursday, May 10, 2018 5:00-6:00)	8	136	46	190	112	136	8	256	19	35	6	60	23	50	153	226
Counted Volumes (Tuesday, October 6, 2020 4:15-5:15)	4	84	29	117	95	98	12	205	8	30	2	40	27	26	101	154
Calibration with Previous Counts	150%	150%	150%		150%	150%	150%		150%	150%	150%		150%	150%	150%	
Adjusted Existing Volumes	6	126	44	176	143	147	18	308	12	45	3	60	41	39	152	231
Total Annual Background Growth	5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%		5.1%	5.1%	5.1%	
No-Build Volumes	6	132	46	184	150	154	19	323	13	47	3	63	43	41	159	243
Proposed Parkside Retail New Trips	0	2	2	4	0	3	8	11	6	5	0	11	2	6	0	8
Proposed Parkside Retail Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proposed Parkside Office Trips	0	0	0	0	0	1	3	4	1	0	0	1	0	0	0	0
Proposed Parkside Residential Trips	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2
Total Parkside Trips	0	2	2	4	0	4	11	15	7	8	0	15	2	8	0	10
Build Volumes	6	134	48	188	150	158	30	338	20	55	3	78	45	49	159	253

MARC R. ACAMPORA, PE, LLC

Parkside Traffic Impact Study
City of Sandy Springs, Georgia

July 2021

Intersection: 10. Sandy Springs Circle at Parkside Shopping Center South Access

Weekday A.M. Peak Hour	Northbound Sandy Springs Circle			Southbound Sandy Springs Circle				Westbound Parkside South Access		
	T	R	Tot	L	T	Tot		L	R	Tot
Counted Volumes (Tuesday, October 6, 2020 7:45-8:45)	114	0	114	3	163	166		1	3	4
Calibration with Previous Counts	150%	150%		150%	150%			150%	150%	
Adjusted Existing Volumes	171	0	171	5	245	249		2	5	6
Total Annual Background Growth	5.1%	5.1%		5.1%	5.1%			5.1%	5.1%	
No-Build Volumes	180	0	180	5	257	262		2	5	6
Proposed Parkside Retail New Trips	3	4	7	13	3	16		1	6	7
Proposed Parkside Retail Pass-By Trips	-1	1	0	0	0	0		1	0	1
Proposed Parkside Office Trips	3	0	3	0	0	0		0	0	0
Proposed Parkside Residential Trips	0	0	0	8	0	8		0	21	21
Total Parkside Trips	5	5	10	21	3	24		2	27	29
Build Volumes	185	5	190	26	260	286		4	32	35

Weekday P.M. Peak Hour	Northbound Sandy Springs Circle			Southbound Sandy Springs Circle				Westbound Parkside South Access		
	T	R	Tot	L	T	Tot		L	R	Tot
Counted Volumes (Tuesday, October 6, 2020 4:15-5:15)	183	4	187	1	189	190		4	10	14
Calibration with Previous Counts	150%	150%		150%	150%			150%	150%	
Adjusted Existing Volumes	275	6	281	2	284	285		6	15	21
Total Annual Background Growth	5.1%	5.1%		5.1%	5.1%			5.1%	5.1%	
No-Build Volumes	288	6	295	2	298	300		6	16	22
Proposed Parkside Retail New Trips	4	4	8	12	7	19		4	15	19
Proposed Parkside Retail Pass-By Trips	-3	3	0	0	0	0		2	0	2
Proposed Parkside Office Trips	1	0	1	0	4	4		0	0	0
Proposed Parkside Residential Trips	0	0	0	21	0	21		0	13	13
Total Parkside Trips	2	7	9	33	11	44		6	28	34
Build Volumes	290	13	304	35	309	344		12	44	56

MARC R. ACAMPORA, PE, LLC

Parkside Traffic Impact Study
City of Sandy Springs, Georgia

July 2021

Intersection: 11. Sandy Springs Circle at Parkside Shopping Center North Access

Weekday A.M. Peak Hour	Northbound Sandy Springs Circle			Southbound Sandy Springs Circle				Westbound Parkside North Access		
	T	R	Tot	L	T	Tot		L	R	Tot
Counted Volumes (Tuesday, October 6, 2020 7:45-8:45)	105	2	107	9	175	184		1	4	5
Calibration with Previous Counts	150%	150%		150%	150%			150%	150%	
Adjusted Existing Volumes	158	3	161	14	263	276		2	6	8
Total Annual Background Growth	5.1%	5.1%		5.1%	5.1%			5.1%	5.1%	
No-Build Volumes	166	3	169	14	276	290		2	6	8
Proposed Parkside Retail New Trips	6	3	9	20	10	30		3	12	15
Proposed Parkside Retail Pass-By Trips	0	0	0	3	-1	2		0	2	2
Proposed Parkside Office Trips	0	3	3	15	0	15		0	2	2
Proposed Parkside Residential Trips	21	0	21	0	8	8		0	0	0
Total Parkside Trips	27	6	33	38	17	55		3	16	19
Build Volumes	193	9	202	52	293	345		5	22	27

Weekday P.M. Peak Hour	Northbound Sandy Springs Circle			Southbound Sandy Springs Circle				Westbound Parkside North Access		
	T	R	Tot	L	T	Tot		L	R	Tot
Counted Volumes (Tuesday, October 6, 2020 4:15-5:15)	182	4	186	26	193	219		3	30	33
Calibration with Previous Counts	150%	150%		150%	150%			150%	150%	
Adjusted Existing Volumes	273	6	279	39	290	329		5	45	50
Total Annual Background Growth	5.1%	5.1%		5.1%	5.1%			5.1%	5.1%	
No-Build Volumes	287	6	293	41	304	345		5	47	52
Proposed Parkside Retail New Trips	15	4	19	23	12	35		7	29	36
Proposed Parkside Retail Pass-By Trips	0	0	0	9	-3	6		2	9	11
Proposed Parkside Office Trips	0	1	1	3	0	3		4	9	13
Proposed Parkside Residential Trips	13	0	13	0	21	21		0	0	0
Total Parkside Trips	28	5	33	35	30	65		13	47	60
Build Volumes	315	11	326	76	334	410		18	94	112

MARC R. ACAMPORA, PE, LLC

Parkside Traffic Impact Study
City of Sandy Springs, Georgia

July 2021

Intersection: 12. Cliftwood Drive at Parkside Shopping Center New Access

Weekday A.M. Peak Hour		Southbound Parkside New Access			Eastbound Cliftwood Drive			Westbound Cliftwood Drive		
		L	R	Tot	L	T	Tot	T	R	Tot
Counted Volumes (Tuesday, October 6, 2020 7:30-8:30)						122	122	114		114
Calibration with Previous Counts						150%		150%		
Adjusted Existing Volumes						183	183	171		171
Total Annual Background Growth						5.1%		5.1%		
No-Build Volumes						192	192	180		180
Proposed Parkside Retail New Trips		0	0	0	0	11	11	18	0	18
Proposed Parkside Retail Pass-By Trips		0	0	0	0	9	9	8	0	8
Proposed Parkside Office Trips		0	0	0	0	3	3	25	0	25
Proposed Parkside Residential Trips		29	2	31	0	0	0	0	9	9
Total Parkside Trips		29	2		0	23		51	9	
Build Volumes		29	2	31	0	215	215	231	9	240

Weekday P.M. Peak Hour		Southbound Parkside New Access			Eastbound Cliftwood Drive			Westbound Cliftwood Drive		
		L	R	Tot	L	T	Tot	T	R	Tot
Counted Volumes (Tuesday, October 6, 2020 4:30-5:30)						153	153	170		170
Calibration with Previous Counts						150%		150%		
Adjusted Existing Volumes						230	230	255		255
Total Annual Background Growth						5.1%		5.1%		
No-Build Volumes						241	241	268		268
Proposed Parkside Retail New Trips		0	0	0	0	25	25	21	0	21
Proposed Parkside Retail Pass-By Trips		0	0	0	0	32	32	13	0	13
Proposed Parkside Office Trips		0	0	0	0	16	16	4	0	4
Proposed Parkside Residential Trips		19	1	20	2	0	2	0	30	30
Total Parkside Trips		19	1		2	73		38	30	
Build Volumes		19	1	20	2	314	316	306	30	336

MARC R. ACAMPORA, PE, LLC

Parkside Traffic Impact Study
City of Sandy Springs, Georgia

July 2021

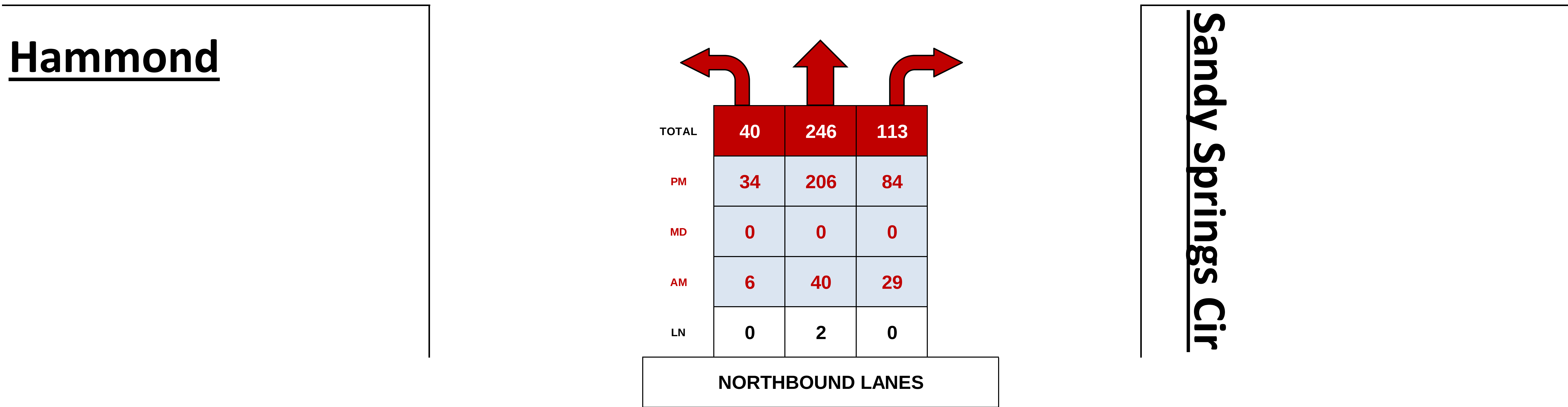
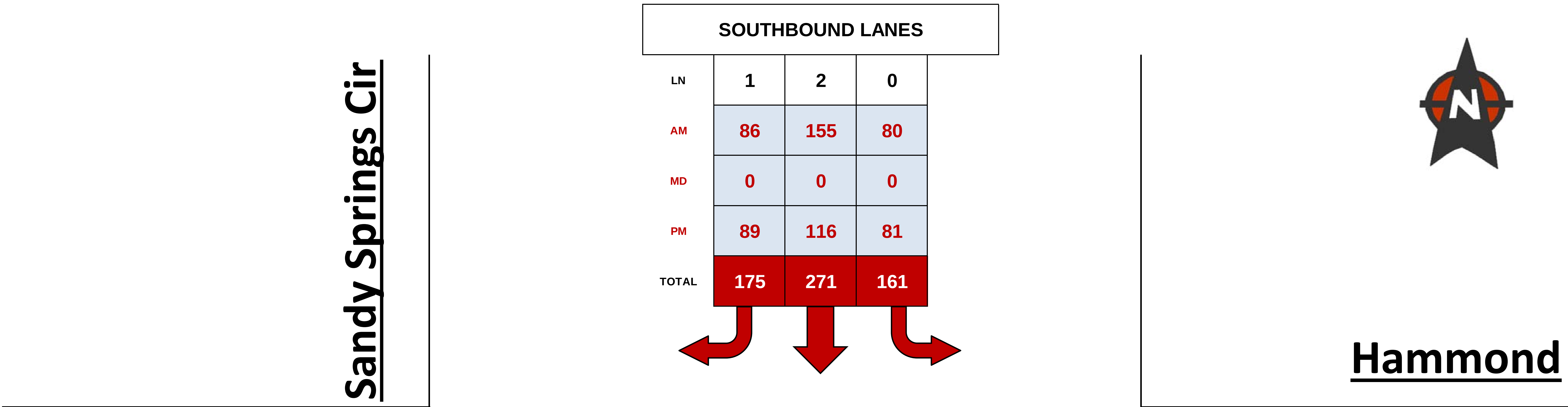
Location	Date	N/E	S/W	Two-Way
Hammond between W and E Hammond Exchange Driveways	Tues October 6, 2020	5375	5407	10782
Hammond west of Sandy Springs Circle	Tues May 15, 2018	7203	6381	13584
Annual Change				-10.9%
Georgia DOT 2019				11900
Roswell north of Cliftwood Drive	Tues October 6, 2020	18347	17779	36126
Roswell south of Mt Vernon Highway	Thurs March 14, 2014	16731	17280	34011
				1.0%
Georgia DOT 2019				35900
Cliftwood east of Sandy Springs Circle	Tues October 6, 2020	1855	2060	3915
Cliftwood west of Roswell Road	Thurs October 11, 2018	2414	2841	5255
Annual Change				-13.7%
Sandy Springs Circle north of Cliftwood Drive	Tues October 6, 2020	2260	2546	4806
Sandy Springs Circle north of Reddington Place	Tues March 12, 2019	3219	3416	6635
Annual Change				-27.6%
Sandy Springs Circle south of Hammond Drive	Tues October 21, 2014	2561	2900	5461
Georgia DOT 2019				7930

MARC R. ACAMPORA, PE, LLC

PEAK HOUR ITM SUMMARY

#017 Sandy Springs Cir & Hammond

LOCATION#:	017	QTD PROJ#:	800193	AM PEAK:	745 AM
NORTH / SOUTH:	Sandy Springs Cir	DATE:	Wednesday, May 08, 2013	MD PEAK:	
EAST / WEST:	Hammond	VICINITY:	Sandy Springs, GA	PM PEAK:	500 PM



VEHICLE TURNING MOVEMENT COUNT

#017 Sandy Springs Cir & Hammond - AM PEAK

LOCATION#:	017	QTD PROJ#:	800193
NORTH / SOUTH:	Sandy Springs Cir	DATE:	Wednesday, May 08, 2013
EAST / WEST:	Hammond	VICINITY:	Sandy Springs, GA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	2	0	0	2	1	0	2	0	1	2	0	
7:00 AM	1	9	4	12	15	17	5	42	7	13	37	8	170
7:15 AM	1	13	10	20	26	27	8	69	5	13	62	10	264
7:30 AM	2	12	19	21	20	25	15	113	8	10	57	16	318
7:45 AM	1	10	9	19	43	22	15	108	9	11	79	8	334
8:00 AM	1	11	10	20	36	23	11	115	6	5	76	7	321
8:15 AM	1	8	6	18	38	20	20	144	8	11	87	18	379
8:30 AM	3	11	4	23	38	21	17	140	7	11	76	20	371
8:45 AM	1	8	8	24	31	27	20	103	7	10	57	15	311

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	11	82	70	157	247	182	111	834	57	84	531	102	2468
P.H.V: ₁	6	40	29	80	155	86	63	507	30	38	318	53	1405
P.H.F: ₂		0.852			0.955			0.872			0.881		0.927

(1) Peak Hour Volume (Peak Hour Begins At 7:45 AM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

3780 Old Norcross Rd. #103-322 Duluth, GA 30096

Ph: 877-852-4355 Fax: 877-877-3698

Info@QualityTrafficData.com

ROSWELL RD S OF MT VERNON HWY

10

Start Time	06-Mar-14 Thu	NB		Hour Totals		SB		Hour Totals	
		AM	PM	AM	PM	AM	PM	AM	PM
12:00		58	310			30	305		
12:15		38	304			39	281		
12:30		43	317			33	263		
12:45		41	281	180	1212	25	304	127	1153
01:00		27	340			23	295		
01:15		29	289			25	301		
01:30		24	293			21	295		
01:45		22	324	102	1246	17	253	86	1144
02:00		12	312			21	265		
02:15		18	292			20	311		
02:30		20	288			12	254		
02:45		13	276	63	1168	12	282	65	1112
03:00		11	280			6	249		
03:15		18	314			5	258		
03:30		12	340			9	276		
03:45		13	334	54	1268	9	268	29	1051
04:00		11	337			11	297		
04:15		17	373			11	242		
04:30		12	317			23	298		
04:45		13	282	53	1309	26	294	71	1131
05:00		25	321			15	263		
05:15		40	222			41	274		
05:30		40	182			37	265		
05:45		49	131	154	856	73	255	166	1057
06:00		80	186			81	257		
06:15		97	107			99	267		
06:30		130	165			151	270		
06:45		166	129	473	587	189	268	520	1062
07:00		201	164			226	263		
07:15		196	256			302	259		
07:30		235	325			350	217		
07:45		229	258	861	1003	321	249	1199	988
08:00		213	212			354	220		
08:15		255	232			318	220		
08:30		232	220			355	173		
08:45		219	202	919	866	329	165	1356	778
09:00		233	187			323	146		
09:15		209	180			323	117		
09:30		227	167			304	109		
09:45		237	159	906	693	318	111	1268	483
10:00		257	126			223	117		
10:15		235	114			232	102		
10:30		264	135			251	67		
10:45		236	74	992	449	252	75	958	361
11:00		239	73			238	72		
11:15		255	61			215	47		
11:30		292	72			227	35		
11:45		270	55	1056	261	233	48	913	202
Peak		11:00	03:30			08:00	00:45		
Vol.		1056	1384			1356	1195		
P.H.F.		0.904	0.928			0.955	0.983		
Lane Total		16731				17280			

VEHICLE TURNING MOVEMENT COUNT

#017 Sandy Springs Cir & Hammond - PM PEAK

LOCATION#:	017	QTD PROJ#:	800193
NORTH / SOUTH:	Sandy Springs Cir	DATE:	Wednesday, May 08, 2013
EAST / WEST:	Hammond	VICINITY:	Sandy Springs, GA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	2	0	0	2	1	0	2	0	1	2	0	
4:30 PM	5	30	21	10	25	27	4	91	7	16	122	22	380
4:45 PM	5	44	17	21	27	14	8	105	5	13	127	33	419
5:00 PM	8	71	24	32	26	25	8	96	10	15	133	34	482
5:15 PM	10	37	16	18	29	22	22	95	9	16	146	32	452
5:30 PM	7	58	24	18	33	24	9	81	9	17	143	19	442
5:45 PM	9	40	20	13	28	18	14	100	15	17	137	38	449
6:00 PM	9	52	31	22	32	24	15	86	10	16	127	28	452
6:15 PM	11	40	15	23	35	23	12	99	8	17	123	44	450

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	64	372	168	157	235	177	92	753	73	127	1058	250	3526
P.H.V: ₁	34	206	84	81	116	89	53	372	43	65	559	123	1825
P.H.F: ₂		0.786			0.861			0.907			0.963		0.947

(1) Peak Hour Volume (Peak Hour Begins At 500 PM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

3780 Old Norcross Rd. #103-322 Duluth, GA 30096

Ph: 877-852-4355 Fax: 877-877-3698

Info@QualityTrafficData.com

GREATER TRAFFIC COMPANY

Page 1

SANDY SPRINGS CIRCLE BTW CLIFTWOOD DR
AND HAMMOND DR

07

Start Time	21-Oct-14 Tue	NB		Hour Totals		SB		Hour Totals	
		AM	PM	AM	PM	AM	PM	AM	PM
12:00		0	53			2	78		
12:15		0	50			1	55		
12:30		0	64			1	71		
12:45		1	55	1	222	0	58	4	262
01:00		0	49			0	73		
01:15		0	51			0	51		
01:30		0	53			0	74		
01:45		1	49	1	202	1	57	1	255
02:00		0	58			0	64		
02:15		0	55			1	53		
02:30		0	51			1	40		
02:45		0	58	0	222	2	48	4	205
03:00		0	67			0	56		
03:15		1	51			0	53		
03:30		1	73			0	37		
03:45		0	65	2	256	1	58	1	204
04:00		0	86			0	55		
04:15		0	51			1	54		
04:30		1	60			0	58		
04:45		1	82	2	279	0	56	1	223
05:00		0	89			0	56		
05:15		1	64			2	42		
05:30		1	75			5	56		
05:45		3	66	5	294	3	65	10	219
06:00		2	82			3	42		
06:15		2	59			10	59		
06:30		7	60			28	60		
06:45		5	58	16	259	25	53	66	214
07:00		19	65			44	42		
07:15		19	28			40	24		
07:30		14	27			45	33		
07:45		16	20	68	140	54	30	183	129
08:00		17	11			58	22		
08:15		29	10			66	21		
08:30		22	15			66	14		
08:45		20	7	88	43	51	10	241	67
09:00		33	6			56	17		
09:15		27	16			61	5		
09:30		25	16			53	8		
09:45		21	8	106	46	44	8	214	38
10:00		32	2			40	4		
10:15		27	3			29	4		
10:30		28	7			29	3		
10:45		27	2	114	14	42	8	140	19
11:00		41	3			45	4		
11:15		27	5			33	3		
11:30		51	3			54	1		
11:45		47	4	166	15	60	0	192	8
Peak		11:00	04:45			07:45	12:00		
Vol.		166	310			244	262		
P.H.F.		0.814	0.871			0.924	0.840		
Lane Total		2561				2900			

Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Hammond Dr @ Sandy Springs Circle
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160001
Site Code : 44160001
Start Date : 10/6/2020
Page No : 1

Groups Printed- Cars, Buses and Trucks

	Sandy Springs Circle Northbound					Sandy Springs Circle Southbound					Hammond Dr Eastbound					Hammond Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	3	9	6	0	18	4	17	5	0	26	10	23	8	0	41	6	12	4	0	22	107
07:15 AM	2	5	3	0	10	13	23	12	0	48	7	40	8	0	55	9	26	5	0	40	153
07:30 AM	4	18	7	0	29	6	20	12	0	38	4	26	7	0	37	4	41	8	0	53	157
07:45 AM	3	10	10	0	23	11	37	12	0	60	6	51	10	0	67	7	49	6	0	62	212
Total	12	42	26	0	80	34	97	41	0	172	27	140	33	0	200	26	128	23	0	177	629
08:00 AM	9	13	4	0	26	10	26	8	0	44	7	83	5	0	95	5	49	6	0	60	225
08:15 AM	5	24	5	0	34	15	32	12	0	59	17	67	8	0	92	7	36	9	0	52	237
08:30 AM	4	22	6	0	32	13	19	9	0	41	10	47	8	0	65	10	47	16	0	73	211
08:45 AM	2	10	10	0	22	12	21	5	0	38	13	64	8	0	85	8	40	7	0	55	200
Total	20	69	25	0	114	50	98	34	0	182	47	261	29	0	337	30	172	38	0	240	873
*** BREAK ***																					
04:00 PM	3	27	13	0	43	15	25	16	0	56	16	62	3	0	81	12	84	20	0	116	296
04:15 PM	6	35	13	0	54	23	36	11	0	70	12	58	8	0	78	19	70	24	0	113	315
04:30 PM	8	43	11	0	62	16	27	18	0	61	13	75	8	0	96	20	95	29	0	144	363
04:45 PM	10	32	10	0	52	15	24	13	0	52	12	47	5	0	64	12	86	22	0	120	288
Total	27	137	47	0	211	69	112	58	0	239	53	242	24	0	319	63	335	95	0	493	1262
05:00 PM	3	37	11	0	51	16	28	10	0	54	11	52	8	0	71	28	82	16	0	126	302
05:15 PM	12	44	10	0	66	17	24	22	0	63	22	67	4	0	93	11	87	21	0	119	341
05:30 PM	11	42	15	0	68	15	26	11	0	52	20	48	5	0	73	10	72	17	0	99	292
05:45 PM	11	38	11	0	60	10	22	13	0	45	14	58	2	0	74	13	85	17	0	115	294
Total	37	161	47	0	245	58	100	56	0	214	67	225	19	0	311	62	326	71	0	459	1229
Grand Total	96	409	145	0	650	211	407	189	0	807	194	868	105	0	1167	181	961	227	0	1369	3993
Apprch %	14.8	62.9	22.3	0		26.1	50.4	23.4	0		16.6	74.4	9	0		13.2	70.2	16.6	0		
Total %	2.4	10.2	3.6	0	16.3	5.3	10.2	4.7	0	20.2	4.9	21.7	2.6	0	29.2	4.5	24.1	5.7	0	34.3	

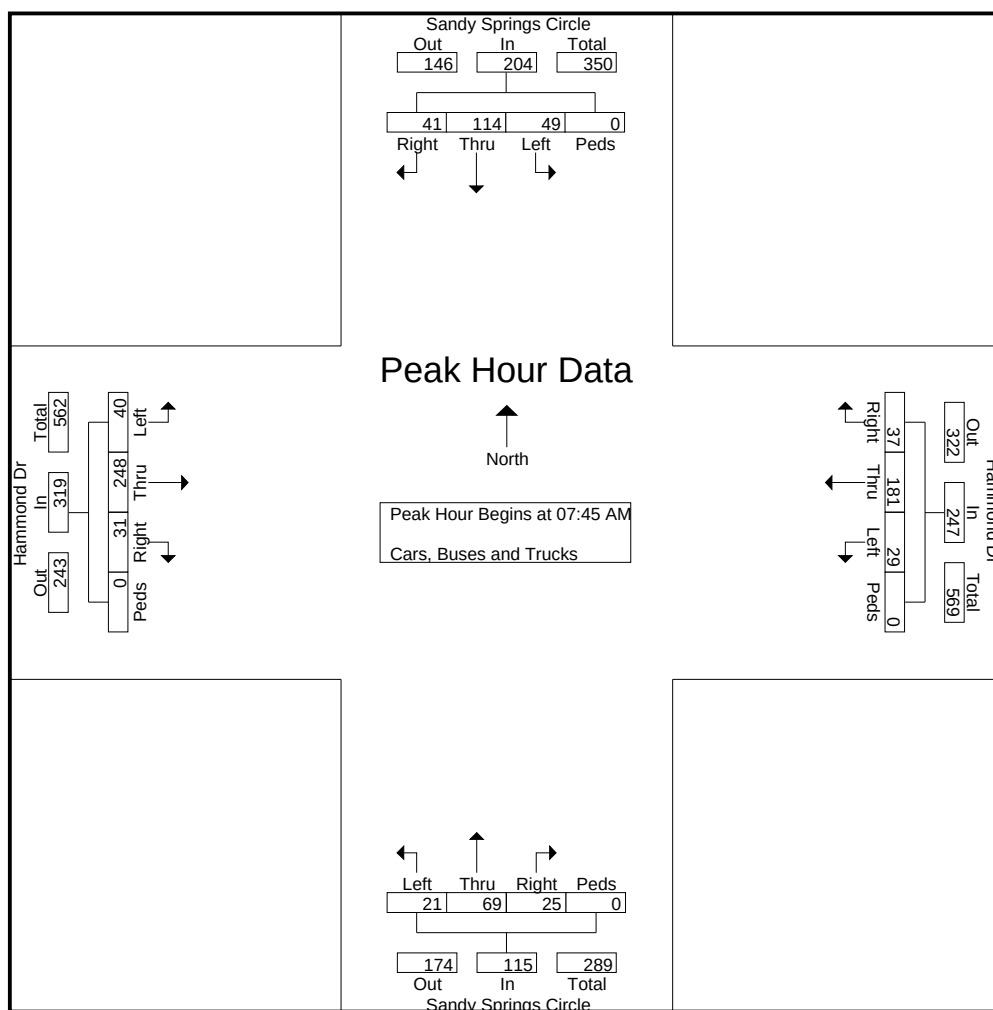
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Hammond Dr @ Sandy Springs Circle
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160001
Site Code : 44160001
Start Date : 10/6/2020
Page No : 2

	Sandy Springs Circle Northbound					Sandy Springs Circle Southbound					Hammond Dr Eastbound					Hammond Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	3	10	10	0	23	11	37	12	0	60	6	51	10	0	67	7	49	6	0	62	212
08:00 AM	9	13	4	0	26	10	26	8	0	44	7	83	5	0	95	5	49	6	0	60	225
08:15 AM	5	24	5	0	34	15	32	12	0	59	17	67	8	0	92	7	36	9	0	52	237
08:30 AM	4	22	6	0	32	13	19	9	0	41	10	47	8	0	65	10	47	16	0	73	211
Total Volume	21	69	25	0	115	49	114	41	0	204	40	248	31	0	319	29	181	37	0	247	885
% App. Total	18.3		21.7			55.9	20.1				12.5	77.7				11.7	73.3				
PHF	.583	.719	.625	.000	.846	.817	.770	.854	.000	.850	.588	.747	.775	.000	.839	.725	.923	.578	.000	.846	.934



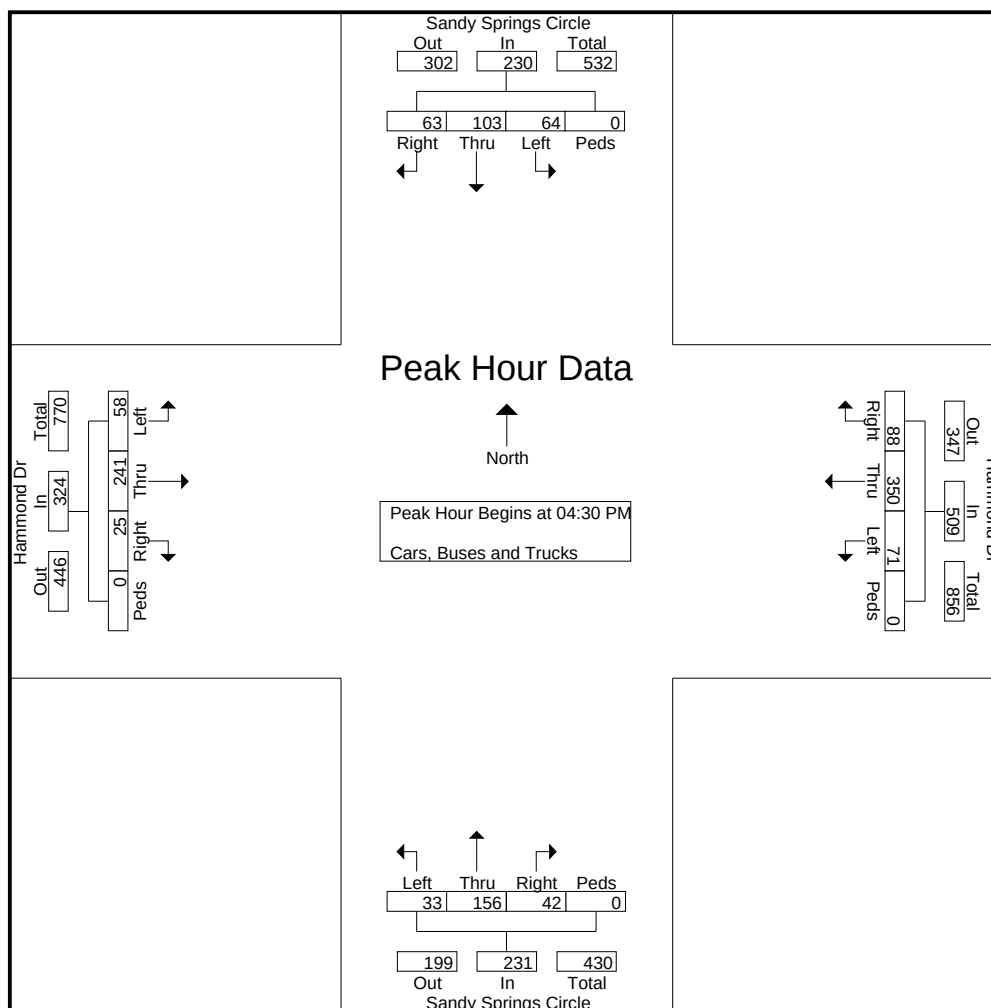
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Hammond Dr @ Sandy Springs Circle
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160001
Site Code : 44160001
Start Date : 10/6/2020
Page No : 3

	Sandy Springs Circle Northbound					Sandy Springs Circle Southbound					Hammond Dr Eastbound					Hammond Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	8	43	11	0	62	16	27	18	0	61	13	75	8	0	96	20	95	29	0	144	363
04:45 PM	10	32	10	0	52	15	24	13	0	52	12	47	5	0	64	12	86	22	0	120	288
05:00 PM	3	37	11	0	51	16	28	10	0	54	11	52	8	0	71	28	82	16	0	126	302
05:15 PM	12	44	10	0	66	17	24	22	0	63	22	67	4	0	93	11	87	21	0	119	341
Total Volume	33	156	42	0	231	64	103	63	0	230	58	241	25	0	324	71	350	88	0	509	1294
% App. Total	14.3	67.5	18.2			27.8	44.8	27.4			17.9	74.4				13.9	68.8	17.3			
PHF	.688	.886	.955	.000	.875	.941	.920	.716	.000	.913	.659	.803	.781	.000	.844	.634	.921	.759	.000	.884	.891



Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Hammond Dr @ Hammond Exchange
Western Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160002
Site Code : 44160002
Start Date : 10/6/2020
Page No : 1

Groups Printed- Cars, Buses and Trucks

	Hammond Exchange Western Access Northbound					Southbound					Hammond Dr Eastbound					Hammond Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	39	1	0	40	0	39	0	0	39	79
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	48	0	0	48	0	47	0	0	47	95
07:30 AM	1	0	0	0	1	0	0	0	0	0	0	62	0	0	62	1	52	0	0	53	116
07:45 AM	2	0	0	0	2	0	0	0	0	0	0	67	1	0	68	0	44	0	0	44	114
Total	3	0	0	0	3	0	0	0	0	0	0	216	2	0	218	1	182	0	0	183	404
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	78	1	0	79	1	51	0	0	52	131
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	82	1	0	83	0	56	0	0	56	139
08:30 AM	1	0	1	0	2	0	0	0	0	0	0	85	2	0	87	2	58	0	0	60	149
08:45 AM	4	0	4	0	8	0	0	0	0	0	0	66	3	0	69	0	53	0	0	53	130
Total	5	0	5	0	10	0	0	0	0	0	0	311	7	0	318	3	218	0	0	221	549
*** BREAK ***																					
04:00 PM	6	0	5	0	11	0	0	0	0	0	0	92	7	0	99	4	103	0	0	107	217
04:15 PM	8	0	6	0	14	0	0	0	0	0	0	96	13	0	109	2	109	0	0	111	234
04:30 PM	19	0	6	0	25	0	0	0	0	0	0	93	11	0	104	4	101	0	0	105	234
04:45 PM	17	0	7	0	24	0	0	0	0	0	0	93	8	0	101	5	106	0	0	111	236
Total	50	0	24	0	74	0	0	0	0	0	0	374	39	0	413	15	419	0	0	434	921
05:00 PM	7	0	5	0	12	0	0	0	0	0	0	99	3	0	102	2	114	0	0	116	230
05:15 PM	5	0	6	0	11	0	0	0	0	0	0	96	0	0	96	0	108	0	0	108	215
05:30 PM	4	0	5	0	9	0	0	0	0	0	0	92	3	0	95	2	96	0	0	98	202
05:45 PM	6	0	4	0	10	0	0	0	0	0	0	83	7	0	90	2	87	0	0	89	189
Total	22	0	20	0	42	0	0	0	0	0	0	370	13	0	383	6	405	0	0	411	836
Grand Total	80	0	49	0	129	0	0	0	0	0	0	1271	61	0	1332	25	1224	0	0	1249	2710
Apprch %	62	0	38	0		0	0	0	0		0	95.4	4.6	0		2	98	0	0		
Total %	3	0	1.8	0	4.8	0	0	0	0	0	0	46.9	2.3	0	49.2	0.9	45.2	0	0	46.1	

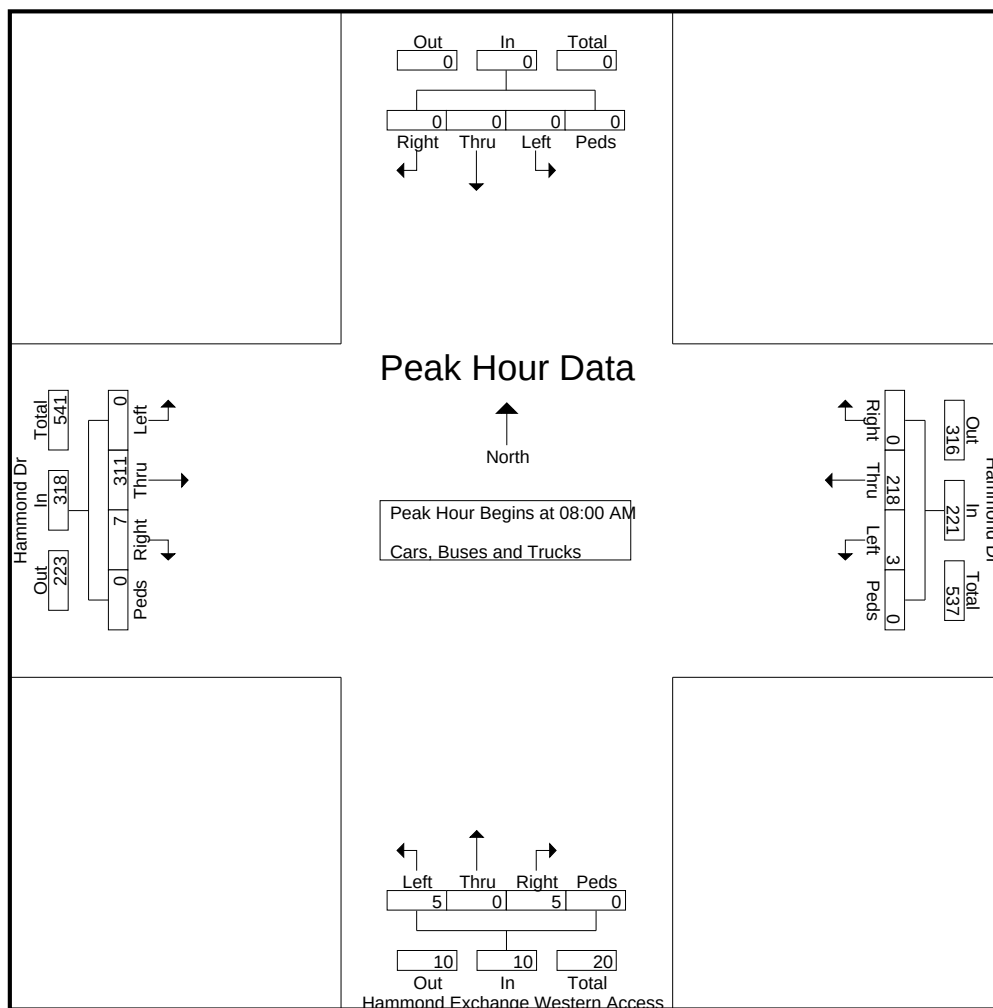
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Hammond Dr @ Hammond Exchange
Western Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160002
Site Code : 44160002
Start Date : 10/6/2020
Page No : 2

	Hammond Exchange Western Access Northbound					Southbound					Hammond Dr Eastbound					Hammond Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	78	1	0	79	1	51	0	0	52	131
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	82	1	0	83	0	56	0	0	56	139
08:30 AM	1	0	1	0	2	0	0	0	0	0	0	85	2	0	87	2	58	0	0	60	149
08:45 AM	4	0	4	0	8	0	0	0	0	0	0	66	3	0	69	0	53	0	0	53	130
Total Volume	5	0	5	0	10	0	0	0	0	0	0	311	7	0	318	3	218	0	0	221	549
% App. Total												97.8					98.6				
PHF	.313	.000	.313	.000	.313	.000	.000	.000	.000	.000	.000	.915	.583	.000	.914	.375	.940	.000	.000	.921	.921



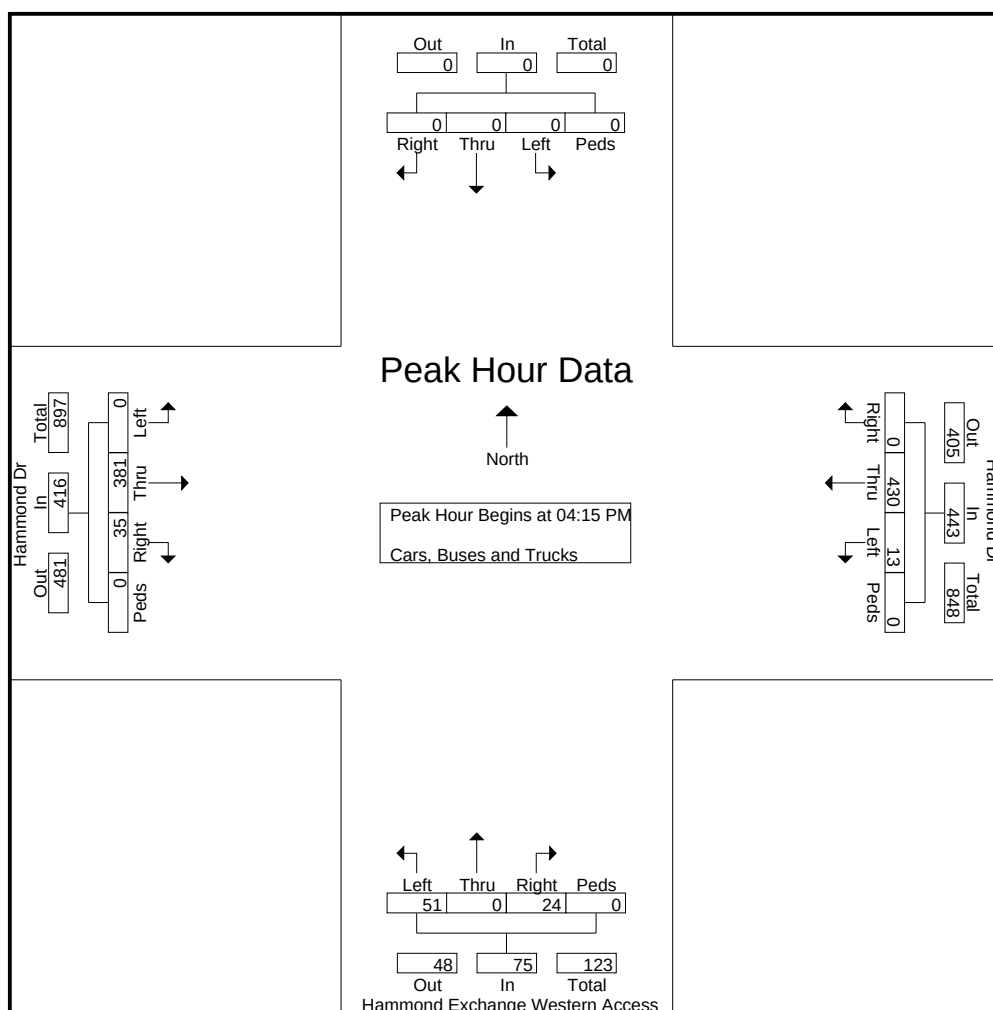
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Hammond Dr @ Hammond Exchange
Western Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160002
Site Code : 44160002
Start Date : 10/6/2020
Page No : 3

	Hammond Exchange Western Access Northbound					Southbound					Hammond Dr Eastbound					Hammond Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	8	0	6	0	14	0	0	0	0	0	0	96	13	0	109	2	109	0	0	111	234
04:30 PM	19	0	6	0	25	0	0	0	0	0	0	93	11	0	104	4	101	0	0	105	234
04:45 PM	17	0	7	0	24	0	0	0	0	0	0	93	8	0	101	5	106	0	0	111	236
05:00 PM	7	0	5	0	12	0	0	0	0	0	0	99	3	0	102	2	114	0	0	116	230
Total Volume	51	0	24	0	75	0	0	0	0	0	0	381	35	0	416	13	430	0	0	443	934
% App. Total												91.6					97.1				
PHF	.671	.000	.857	.000	.750	.000	.000	.000	.000	.000	.000	.962	.673	.000	.954	.650	.943	.000	.000	.955	.989



Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Hammond Dr @ Hammond Exchange
Signalized Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160003
Site Code : 44160003
Start Date : 10/6/2020
Page No : 1

Groups Printed- Cars, Buses and Trucks

	Hammond Exchange Signalized Access Northbound					Kroger Access Southbound					Hammond Dr Eastbound					Hammond Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	1	0	0	1	8	0	1	0	9	1	34	4	0	39	0	19	8	0	27	76
07:15 AM	0	1	1	0	2	5	0	2	0	7	0	52	2	0	54	1	34	8	0	43	106
07:30 AM	0	0	0	0	0	10	0	1	0	11	2	46	1	0	49	1	51	9	0	61	121
07:45 AM	0	1	1	0	2	9	0	3	0	12	4	67	2	0	73	1	58	12	0	71	158
Total	0	3	2	0	5	32	0	7	0	39	7	199	9	0	215	3	162	37	0	202	461
08:00 AM	0	0	1	0	1	6	1	1	0	8	3	87	4	0	94	1	51	17	0	69	172
08:15 AM	1	1	4	0	6	8	0	3	0	11	3	74	6	0	83	3	57	15	0	75	175
08:30 AM	1	3	1	0	5	12	2	5	0	19	1	60	1	0	62	4	53	22	0	79	165
08:45 AM	3	0	2	0	5	12	0	2	0	14	3	68	13	0	84	3	52	29	0	84	187
Total	5	4	8	0	17	38	3	11	0	52	10	289	24	0	323	11	213	83	0	307	699
*** BREAK ***																					
04:00 PM	17	8	20	0	45	27	3	5	0	35	0	79	22	0	101	16	81	33	0	130	311
04:15 PM	10	10	16	0	36	24	6	9	0	39	3	83	20	0	106	16	66	31	0	113	294
04:30 PM	19	5	15	0	39	29	1	10	0	40	3	88	19	0	110	17	95	28	0	140	329
04:45 PM	15	2	15	0	32	28	4	4	0	36	2	66	14	0	82	11	89	40	0	140	290
Total	61	25	66	0	152	108	14	28	0	150	8	316	75	0	399	60	331	132	0	523	1224
05:00 PM	13	4	12	0	29	24	1	5	0	30	3	70	17	0	90	11	89	37	0	137	286
05:15 PM	12	6	10	0	28	26	2	10	0	38	2	81	18	0	101	12	84	48	0	144	311
05:30 PM	12	4	21	0	37	26	0	6	0	32	4	72	21	0	97	10	90	33	0	133	299
05:45 PM	19	5	15	0	39	31	4	7	0	42	1	68	25	0	94	12	75	34	0	121	296
Total	56	19	58	0	133	107	7	28	0	142	10	291	81	0	382	45	338	152	0	535	1192
Grand Total	122	51	134	0	307	285	24	74	0	383	35	1095	189	0	1319	119	1044	404	0	1567	3576
Apprch %	39.7	16.6	43.6	0		74.4	6.3	19.3	0		2.7	83	14.3	0		7.6	66.6	25.8	0		
Total %	3.4	1.4	3.7	0	8.6	8	0.7	2.1	0	10.7	1	30.6	5.3	0	36.9	3.3	29.2	11.3	0	43.8	

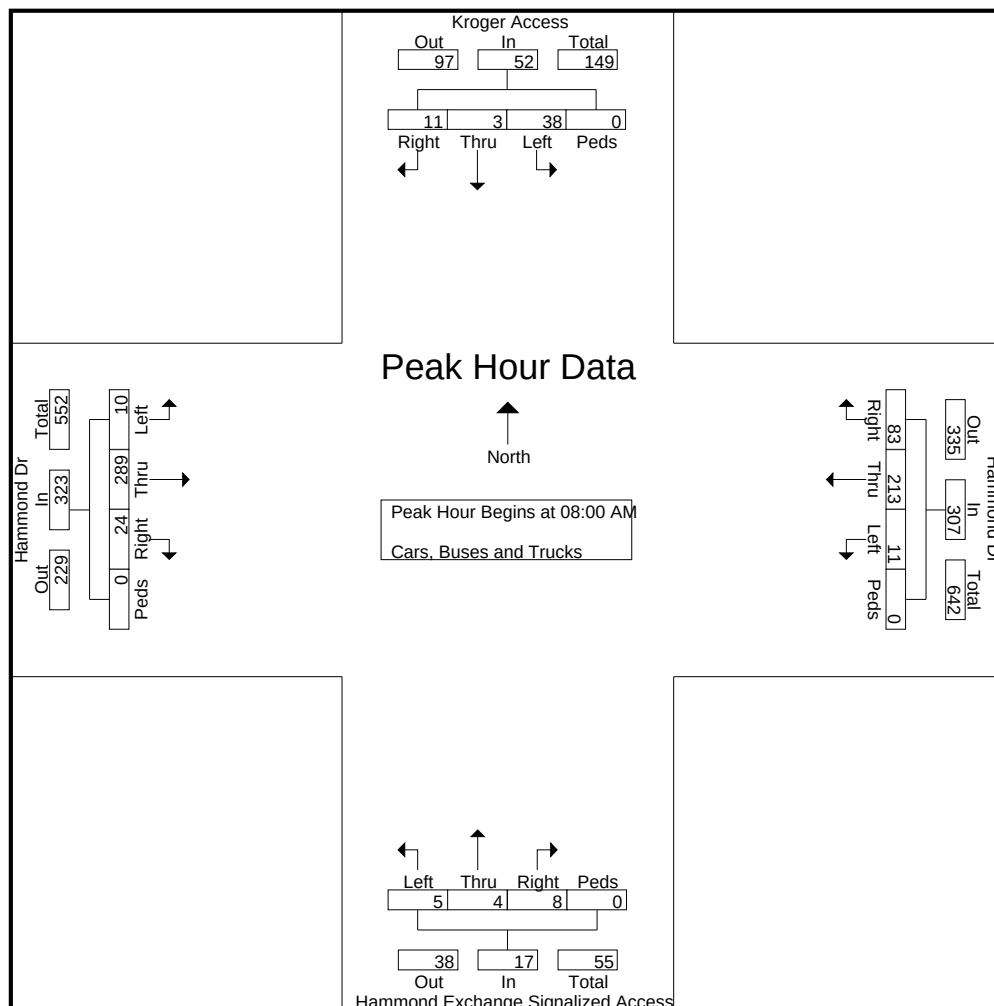
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Hammond Dr @ Hammond Exchange
Signalized Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160003
Site Code : 44160003
Start Date : 10/6/2020
Page No : 2

	Hammond Exchange Signalized Access Northbound					Kroger Access Southbound					Hammond Dr Eastbound					Hammond Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	1	0	1	6	1	1	0	8	3	87	4	0	94	1	51	17	0	69	172
08:15 AM	1	1	4	0	6	8	0	3	0	11	3	74	6	0	83	3	57	15	0	75	175
08:30 AM	1	3	1	0	5	12	2	5	0	19	1	60	1	0	62	4	53	22	0	79	165
08:45 AM	3	0	2	0	5	12	0	2	0	14	3	68	13	0	84	3	52	29	0	84	187
Total Volume	5	4	8	0	17	38	3	11	0	52	10	289	24	0	323	11	213	83	0	307	699
% App. Total	29.4	23.5	47.1			73.1		21.2				89.5					69.4				
PHF	.417	.333	.500	.000	.708	.792	.375	.550	.000	.684	.833	.830	.462	.000	.859	.688	.934	.716	.000	.914	.934



Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data

Hammond Dr @ Hammond Exchange

Signalized Access, Sandy Springs, GA

7-9 AM | 4-6 PM

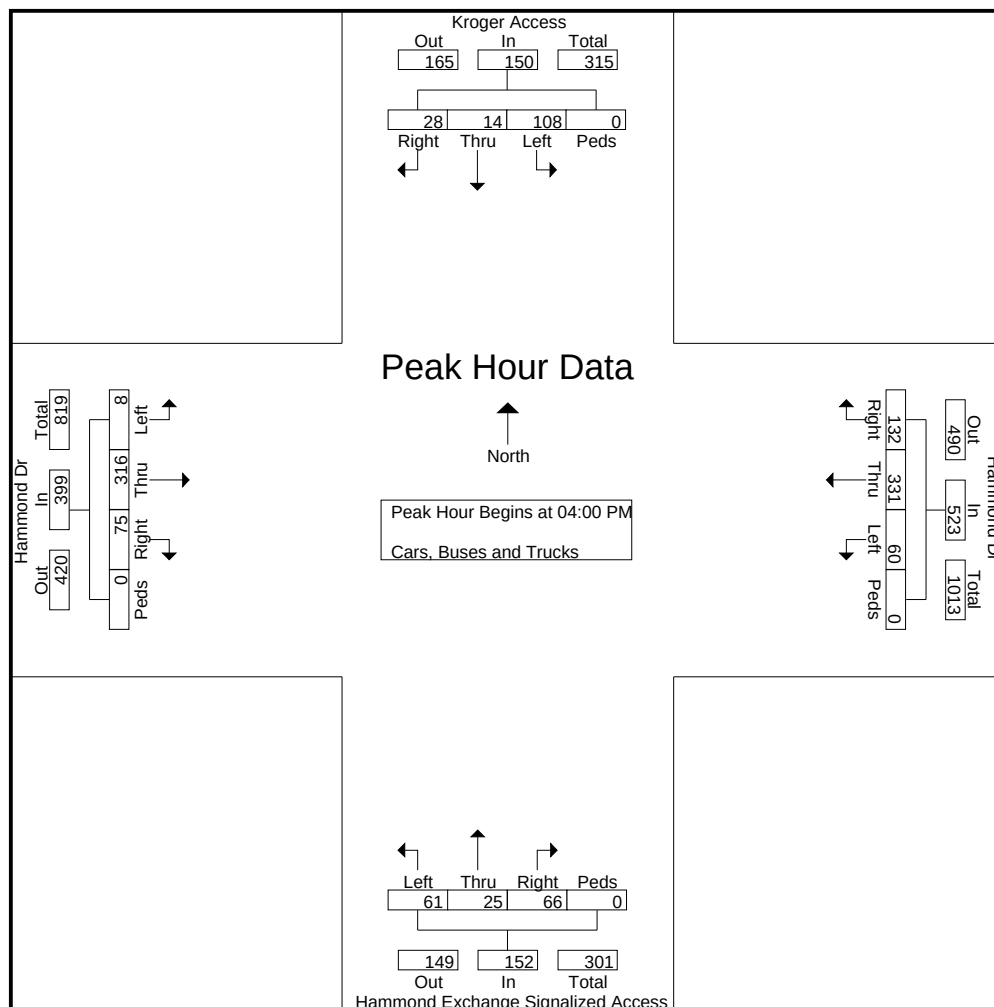
File Name : 44160003

Site Code : 44160003

Start Date : 10/6/2020

Page No : 3

	Hammond Exchange Signalized Access Northbound					Kroger Access Southbound					Hammond Dr Eastbound					Hammond Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	17	8	20	0	45	27	3	5	0	35	0	79	22	0	101	16	81	33	0	130	311
04:15 PM	10	10	16	0	36	24	6	9	0	39	3	83	20	0	106	16	66	31	0	113	294
04:30 PM	19	5	15	0	39	29	1	10	0	40	3	88	19	0	110	17	95	28	0	140	329
04:45 PM	15	2	15	0	32	28	4	4	0	36	2	66	14	0	82	11	89	40	0	140	290
Total Volume	61	25	66	0	152	108	14	28	0	150	8	316	75	0	399	60	331	132	0	523	1224
% App. Total	40.1	16.4	43.4					18.7				79.2	18.8			11.5	63.3	25.2			
PHF	.803	.625	.825	.000	.844	.931	.583	.700	.000	.938	.667	.898	.852	.000	.907	.882	.871	.825	.000	.934	.930



Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Roswell Rd @ Hammond Dr
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160004
Site Code : 44160004
Start Date : 10/6/2020
Page No : 1

Groups Printed- Cars, Buses and Trucks

	Roswell Rd Northbound					Roswell Rd Southbound					Hammond Dr Eastbound					Hammond Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	12	138	20	0	170	7	102	5	0	114	12	22	13	0	47	24	14	7	0	45	376
07:15 AM	15	167	18	0	200	16	137	1	0	154	8	43	15	0	66	23	26	10	0	59	479
07:30 AM	22	198	22	0	242	16	163	4	0	183	8	32	15	0	55	42	34	17	0	93	573
07:45 AM	28	224	15	0	267	19	209	9	0	237	10	50	16	0	76	29	33	13	0	75	655
Total	77	727	75	0	879	58	611	19	0	688	38	147	59	0	244	118	107	47	0	272	2083
08:00 AM	29	217	14	0	260	17	191	8	0	216	9	64	30	0	103	36	36	8	0	80	659
08:15 AM	34	210	20	0	264	21	193	10	0	224	8	59	24	0	91	34	39	12	0	85	664
08:30 AM	26	228	24	0	278	19	193	12	0	224	12	47	17	0	76	28	39	16	0	83	661
08:45 AM	31	219	17	0	267	17	122	11	0	150	12	54	22	0	88	33	51	11	0	95	600
Total	120	874	75	0	1069	74	699	41	0	814	41	224	93	0	358	131	165	47	0	343	2584
*** BREAK ***																					
04:00 PM	34	261	20	0	315	17	203	18	0	238	29	76	42	0	147	68	80	20	0	168	868
04:15 PM	37	303	15	0	355	29	226	14	0	269	27	57	33	0	117	71	69	18	0	158	899
04:30 PM	33	228	21	0	282	28	175	8	0	211	28	68	55	0	151	62	98	20	0	180	824
04:45 PM	49	293	18	0	360	23	198	13	0	234	26	57	45	0	128	72	86	20	0	178	900
Total	153	1085	74	0	1312	97	802	53	0	952	110	258	175	0	543	273	333	78	0	684	3491
05:00 PM	51	276	14	0	341	37	210	20	0	267	25	65	36	0	126	61	84	20	0	165	899
05:15 PM	46	263	10	0	319	31	186	12	0	229	23	65	48	0	136	73	103	31	0	207	891
05:30 PM	43	271	13	0	327	17	219	15	0	251	32	51	31	0	114	70	70	26	0	166	858
05:45 PM	32	250	16	0	298	34	172	7	0	213	27	57	46	0	130	54	85	29	0	168	809
Total	172	1060	53	0	1285	119	787	54	0	960	107	238	161	0	506	258	342	106	0	706	3457
Grand Total	522	3746	277	0	4545	348	2899	167	0	3414	296	867	488	0	1651	780	947	278	0	2005	11615
Apprch %	11.5	82.4	6.1	0		10.2	84.9	4.9	0		17.9	52.5	29.6	0		38.9	47.2	13.9	0		
Total %	4.5	32.3	2.4	0	39.1	3	25	1.4	0	29.4	2.5	7.5	4.2	0	14.2	6.7	8.2	2.4	0	17.3	

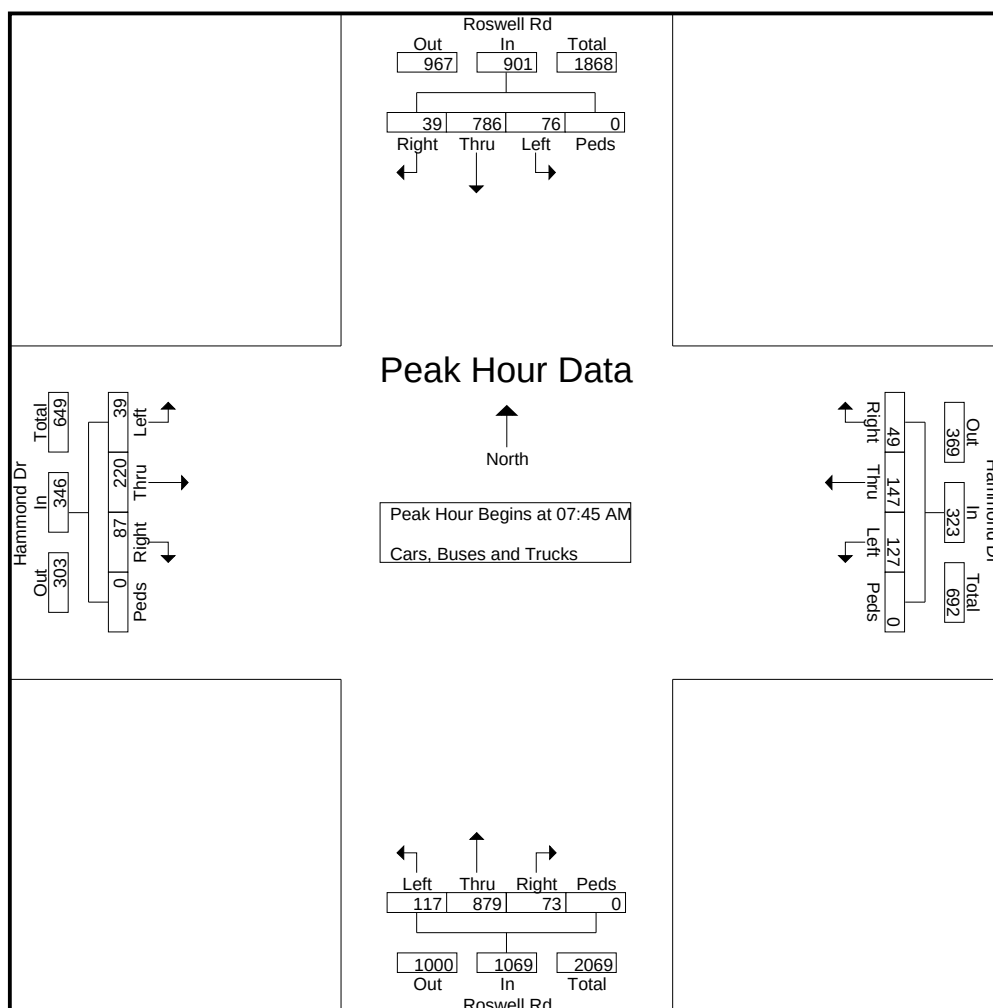
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Roswell Rd @ Hammond Dr
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160004
Site Code : 44160004
Start Date : 10/6/2020
Page No : 2

	Roswell Rd Northbound					Roswell Rd Southbound					Hammond Dr Eastbound					Hammond Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	28	224	15	0	267	19	209	9	0	237	10	50	16	0	76	29	33	13	0	75	655
08:00 AM	29	217	14	0	260	17	191	8	0	216	9	64	30	0	103	36	36	8	0	80	659
08:15 AM	34	210	20	0	264	21	193	10	0	224	8	59	24	0	91	34	39	12	0	85	664
08:30 AM	26	228	24	0	278	19	193	12	0	224	12	47	17	0	76	28	39	16	0	83	661
Total Volume	117	879	73	0	1069	76	786	39	0	901	39	220	87	0	346	127	147	49	0	323	2639
% App. Total	10.9	82.2				87.2					11.3	63.6	25.1			39.3	45.5	15.2			
PHF	.860	.964	.760	.000	.961	.905	.940	.813	.000	.950	.813	.859	.725	.000	.840	.882	.942	.766	.000	.950	.994



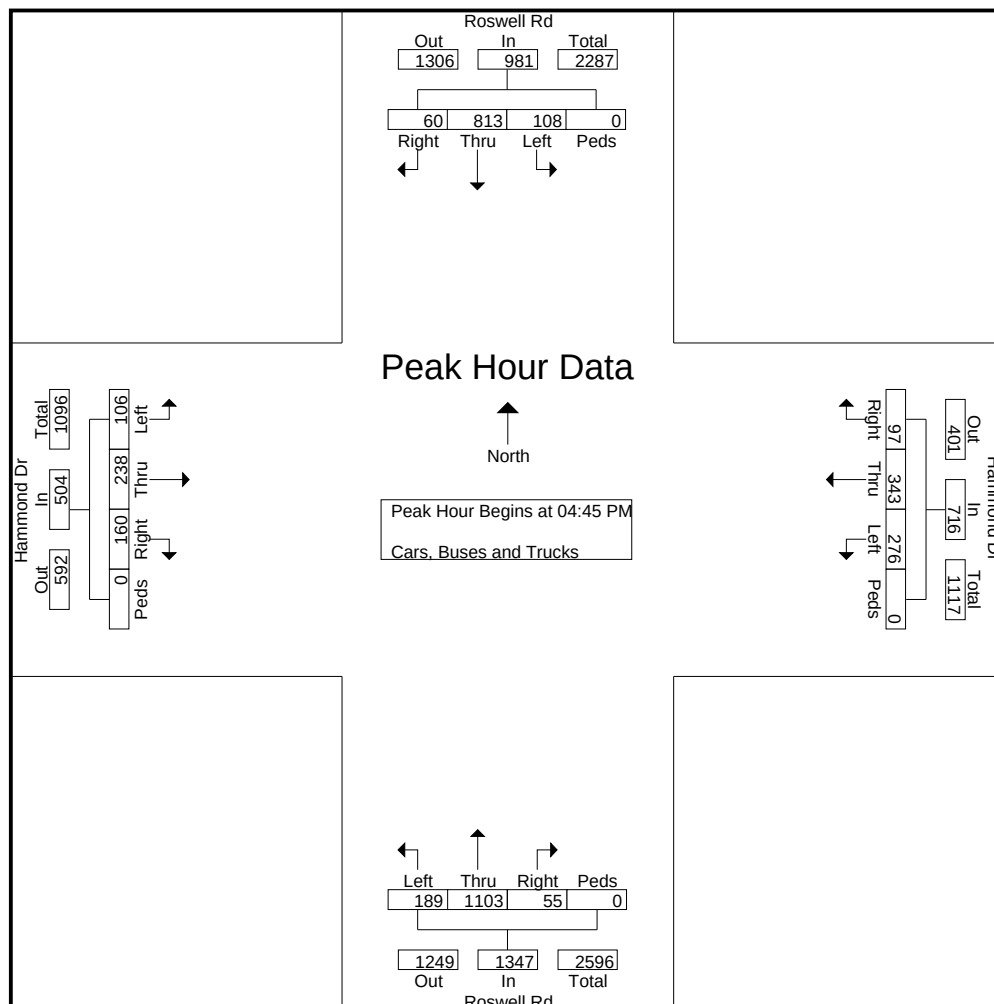
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Roswell Rd @ Hammond Dr
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160004
Site Code : 44160004
Start Date : 10/6/2020
Page No : 3

	Roswell Rd Northbound					Roswell Rd Southbound					Hammond Dr Eastbound					Hammond Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	49	293	18	0	360	23	198	13	0	234	26	57	45	0	128	72	86	20	0	178	900
05:00 PM	51	276	14	0	341	37	210	20	0	267	25	65	36	0	126	61	84	20	0	165	899
05:15 PM	46	263	10	0	319	31	186	12	0	229	23	65	48	0	136	73	103	31	0	207	891
05:30 PM	43	271	13	0	327	17	219	15	0	251	32	51	31	0	114	70	70	26	0	166	858
Total Volume	189	1103	55	0	1347	108	813	60	0	981	106	238	160	0	504	276	343	97	0	716	3548
% App. Total	14	81.9	4.1	0		11	82.9	6.1	0		21	47.2	31.7	0		38.5	47.9	13.5	0		
PHF	.926	.941	.764	.000	.935	.730	.928	.750	.000	.919	.828	.915	.833	.000	.926	.945	.833	.782	.000	.865	.986



Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Roswell Rd @ Parkside Shop Ctr Access
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160005
Site Code : 44160005
Start Date : 10/6/2020
Page No : 1

Groups Printed- Cars, Buses and Trucks

	Roswell Rd Northbound					Roswell Rd Southbound					Parkside Shop Ctr Access Eastbound					Lowes Drwy Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	3	217	5	1	226	0	207	2	0	209	0	0	3	0	3	2	0	1	0	3	441
07:15 AM	2	231	3	0	236	1	211	1	0	213	2	0	5	0	7	0	0	1	0	1	457
07:30 AM	0	248	6	0	254	1	215	1	0	217	0	0	0	0	0	0	0	0	0	0	471
07:45 AM	4	270	5	0	279	1	218	2	0	221	0	0	2	0	2	4	0	2	0	6	508
Total	9	966	19	1	995	3	851	6	0	860	2	0	10	0	12	6	0	4	0	10	1877
08:00 AM	2	288	5	0	295	1	237	4	0	242	0	0	5	0	5	2	0	0	0	2	544
08:15 AM	2	258	6	0	266	0	228	5	0	233	2	0	2	0	4	7	0	2	0	9	512
08:30 AM	3	296	7	0	306	2	239	2	0	243	0	0	3	0	3	4	0	0	0	4	556
08:45 AM	4	274	7	0	285	2	236	4	0	242	0	0	4	0	4	1	0	1	0	2	533
Total	11	1116	25	0	1152	5	940	15	0	960	2	0	14	0	16	14	0	3	0	17	2145
*** BREAK ***																					
04:00 PM	4	319	10	0	333	0	326	10	0	336	8	0	11	0	19	1	0	0	0	1	689
04:15 PM	6	311	11	0	328	1	308	18	0	327	7	0	11	0	18	3	0	2	0	5	678
04:30 PM	7	285	6	0	298	5	311	7	0	323	1	0	10	0	11	5	0	1	0	6	638
04:45 PM	10	320	7	0	337	2	274	11	0	287	4	0	12	0	16	3	0	1	0	4	644
Total	27	1235	34	0	1296	8	1219	46	0	1273	20	0	44	0	64	12	0	4	0	16	2649
05:00 PM	10	314	2	0	326	2	326	7	0	335	1	2	6	0	9	4	1	0	0	5	675
05:15 PM	13	308	2	0	323	2	318	8	0	328	3	0	11	0	14	4	0	0	0	4	669
05:30 PM	6	286	5	0	297	3	291	13	0	307	6	0	14	0	20	2	0	0	0	2	626
05:45 PM	9	272	7	0	288	0	267	7	0	274	3	0	13	0	16	4	0	1	0	5	583
Total	38	1180	16	0	1234	7	1202	35	0	1244	13	2	44	0	59	14	1	1	0	16	2553
Grand Total	85	4497	94	1	4677	23	4212	102	0	4337	37	2	112	0	151	46	1	12	0	59	9224
Apprch %	1.8	96.2	2	0		0.5	97.1	2.4	0		24.5	1.3	74.2	0		78	1.7	20.3	0		
Total %	0.9	48.8	1	0	50.7	0.2	45.7	1.1	0	47	0.4	0	1.2	0	1.6	0.5	0	0.1	0	0.6	

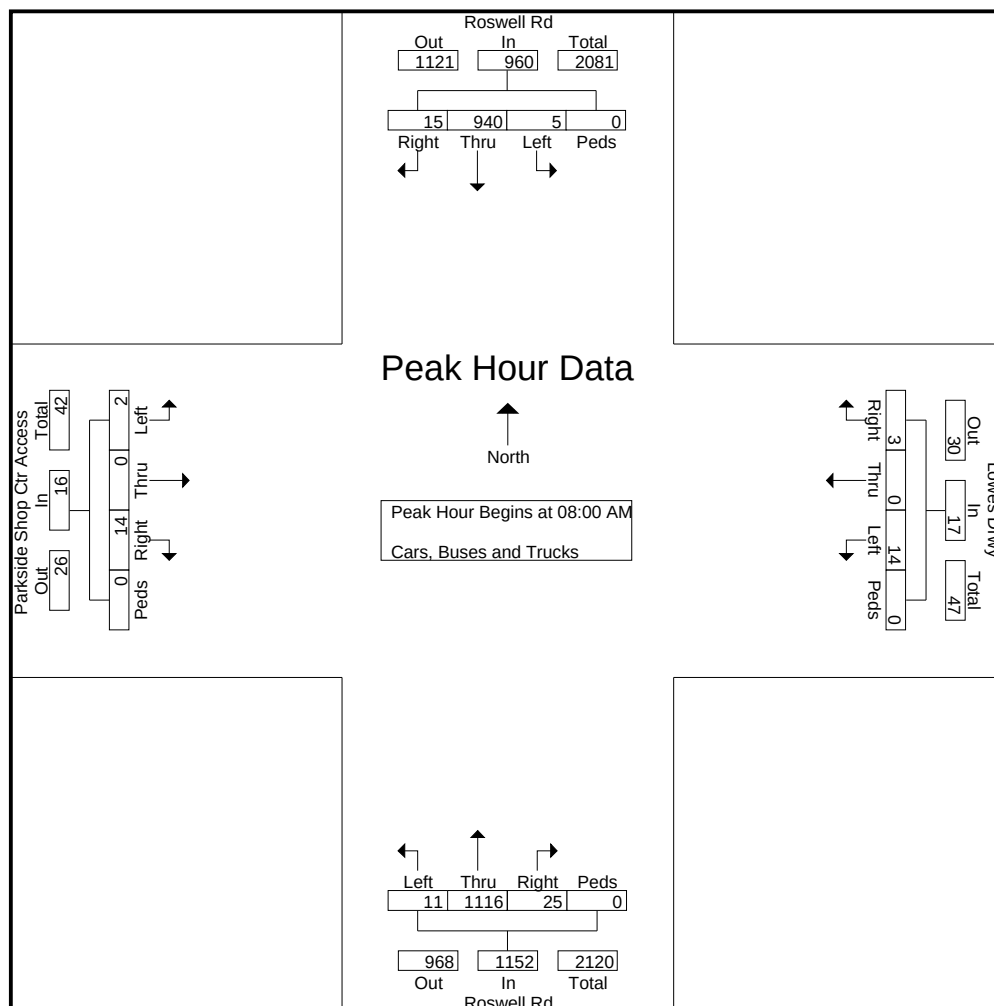
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Roswell Rd @ Parkside Shop Ctr Access
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160005
Site Code : 44160005
Start Date : 10/6/2020
Page No : 2

	Roswell Rd Northbound					Roswell Rd Southbound					Parkside Shop Ctr Access Eastbound					Lowes Drwy Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	2	288	5	0	295	1	237	4	0	242	0	0	5	0	5	2	0	0	0	2	544
08:15 AM	2	258	6	0	266	0	228	5	0	233	2	0	2	0	4	7	0	2	0	9	512
08:30 AM	3	296	7	0	306	2	239	2	0	243	0	0	3	0	3	4	0	0	0	4	556
08:45 AM	4	274	7	0	285	2	236	4	0	242	0	0	4	0	4	1	0	1	0	2	533
Total Volume	11	1116	25	0	1152	5	940	15	0	960	2	0	14	0	16	14	0	3	0	17	2145
% App. Total	1	96.9	2.2	0		0.5	97.9	1.6	0		12.5	0	87.5	0		82.4	0	17.6	0		
PHF	.688	.943	.893	.000	.941	.625	.983	.750	.000	.988	.250	.000	.700	.000	.800	.500	.000	.375	.000	.472	.964



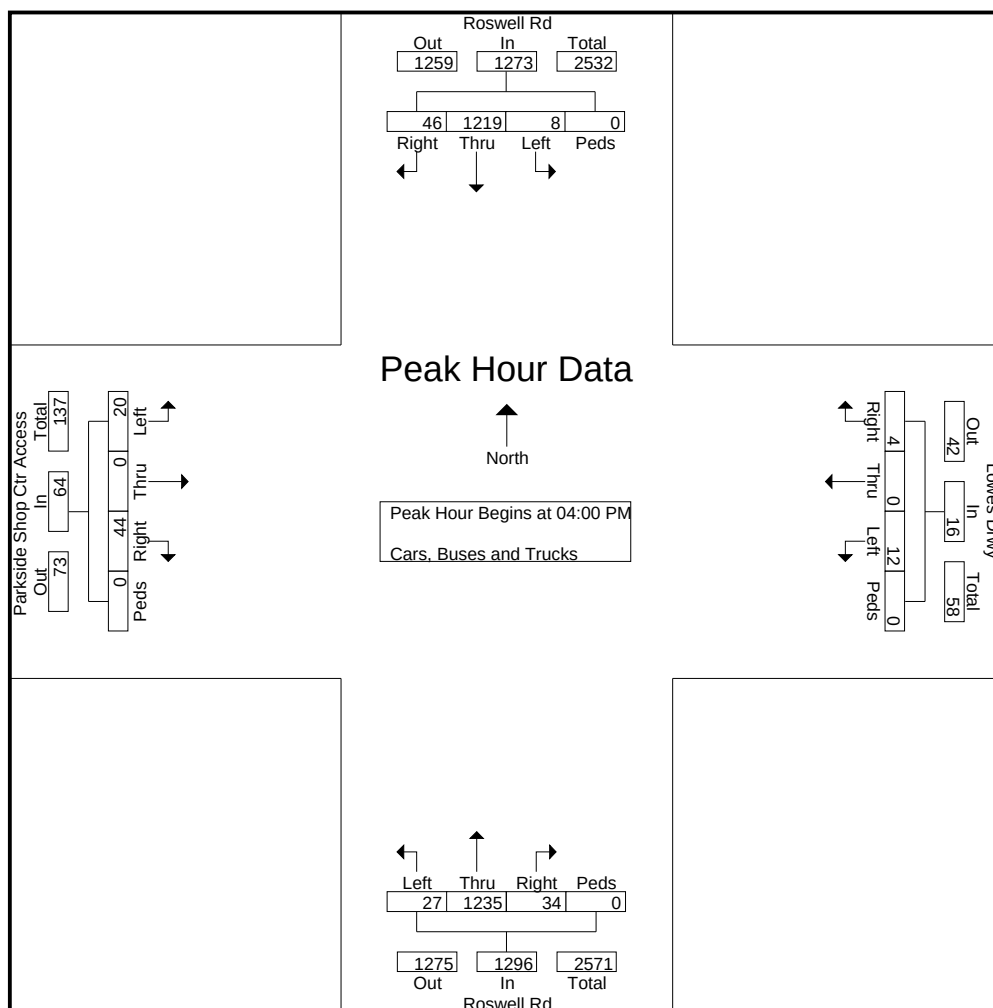
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Roswell Rd @ Parkside Shop Ctr Access
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160005
Site Code : 44160005
Start Date : 10/6/2020
Page No : 3

	Roswell Rd Northbound					Roswell Rd Southbound					Parkside Shop Ctr Access Eastbound					Lowes Drwy Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	4	319	10	0	333	0	326	10	0	336	8	0	11	0	19	1	0	0	0	1	689
04:15 PM	6	311	11	0	328	1	308	18	0	327	7	0	11	0	18	3	0	2	0	5	678
04:30 PM	7	285	6	0	298	5	311	7	0	323	1	0	10	0	11	5	0	1	0	6	638
04:45 PM	10	320	7	0	337	2	274	11	0	287	4	0	12	0	16	3	0	1	0	4	644
Total Volume	27	1235	34	0	1296	8	1219	46	0	1273	20	0	44	0	64	12	0	4	0	16	2649
% App. Total	2.1	95.3	2.6	0		0.6	95.8	3.6	0		31.2	0	68.8	0		75	0	25	0		
PHF	.675	.965	.773	.000	.961	.400	.935	.639	.000	.947	.625	.000	.917	.000	.842	.600	.000	.500	.000	.667	.961



Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Roswell Rd @ Cliftwood Dr/Carpenter Dr
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160006
Site Code : 44160006
Start Date : 10/6/2020
Page No : 1

Groups Printed- Cars, Buses and Trucks

	Roswell Rd Northbound					Roswell Rd Southbound					Cliftwood Dr Eastbound					Carpenter Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	29	174	1	0	204	4	134	7	0	145	14	1	17	0	32	3	2	4	0	9	390
07:15 AM	22	203	2	0	227	2	186	3	0	191	11	7	19	0	37	8	1	7	0	16	471
07:30 AM	29	224	1	0	254	14	219	4	0	237	10	1	14	0	25	16	4	5	0	25	541
07:45 AM	22	243	3	0	268	7	237	1	0	245	8	4	14	0	26	11	2	7	0	20	559
Total	102	844	7	0	953	27	776	15	0	818	43	13	64	0	120	38	9	23	0	70	1961
08:00 AM	25	248	3	0	276	6	230	3	0	239	14	8	11	0	33	13	4	6	0	23	571
08:15 AM	28	226	2	0	256	12	254	4	0	270	13	5	14	0	32	10	0	3	0	13	571
08:30 AM	24	243	0	0	267	5	233	11	0	249	9	8	12	0	29	7	0	7	0	14	559
08:45 AM	28	299	7	0	334	9	216	5	0	230	16	8	15	0	39	11	1	9	0	21	624
Total	105	1016	12	0	1133	32	933	23	0	988	52	29	52	0	133	41	5	25	0	71	2325
*** BREAK ***																					
04:00 PM	37	296	2	0	335	7	277	7	0	291	24	1	15	0	40	21	4	12	0	37	703
04:15 PM	25	316	6	0	347	11	318	5	0	334	20	8	19	0	47	18	3	12	0	33	761
04:30 PM	33	286	3	0	322	14	302	8	0	324	12	3	19	0	34	17	5	6	0	28	708
04:45 PM	27	307	2	0	336	11	278	5	0	294	25	8	22	0	55	30	6	9	0	45	730
Total	122	1205	13	0	1340	43	1175	25	0	1243	81	20	75	0	176	86	18	39	0	143	2902
05:00 PM	26	298	3	0	327	7	319	8	0	334	17	6	25	0	48	14	8	8	0	30	739
05:15 PM	36	273	4	0	313	14	300	8	0	322	24	2	29	0	55	23	7	11	0	41	731
05:30 PM	33	267	3	0	303	4	338	8	0	350	18	6	20	0	44	23	2	1	0	26	723
05:45 PM	31	259	2	0	292	9	266	5	0	280	14	5	13	0	32	38	8	12	0	58	662
Total	126	1097	12	0	1235	34	1223	29	0	1286	73	19	87	0	179	98	25	32	0	155	2855
Grand Total	455	4162	44	0	4661	136	4107	92	0	4335	249	81	278	0	608	263	57	119	0	439	10043
Apprch %	9.8	89.3	0.9	0		3.1	94.7	2.1	0		41	13.3	45.7	0		59.9	13	27.1	0		
Total %	4.5	41.4	0.4	0	46.4	1.4	40.9	0.9	0	43.2	2.5	0.8	2.8	0	6.1	2.6	0.6	1.2	0	4.4	

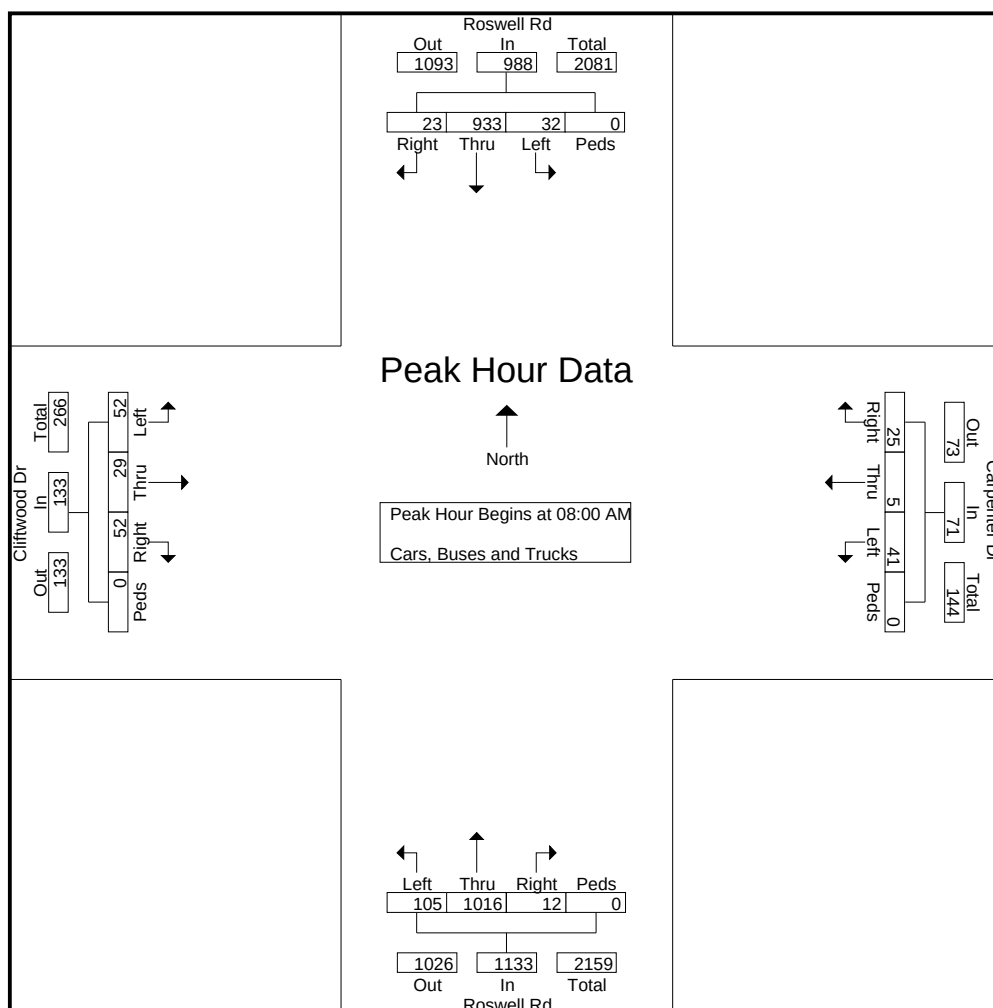
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Roswell Rd @ Cliftwood Dr/Carpenter Dr
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160006
Site Code : 44160006
Start Date : 10/6/2020
Page No : 2

	Roswell Rd Northbound					Roswell Rd Southbound					Cliftwood Dr Eastbound					Carpenter Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	25	248	3	0	276	6	230	3	0	239	14	8	11	0	33	13	4	6	0	23	571
08:15 AM	28	226	2	0	256	12	254	4	0	270	13	5	14	0	32	10	0	3	0	13	571
08:30 AM	24	243	0	0	267	5	233	11	0	249	9	8	12	0	29	7	0	7	0	14	559
08:45 AM	28	299	7	0	334	9	216	5	0	230	16	8	15	0	39	11	1	9	0	21	624
Total Volume	105	1016	12	0	1133	32	933	23	0	988	52	29	52	0	133	41	5	25	0	71	2325
% App. Total	9.3	89.7	1.1	0		3.2	94.4	2.3	0		39.1	21.8	39.1	0		57.7	7	35.2	0		
PHF	.938	.849	.429	.000	.848	.667	.918	.523	.000	.915	.813	.906	.867	.000	.853	.788	.313	.694	.000	.772	.931



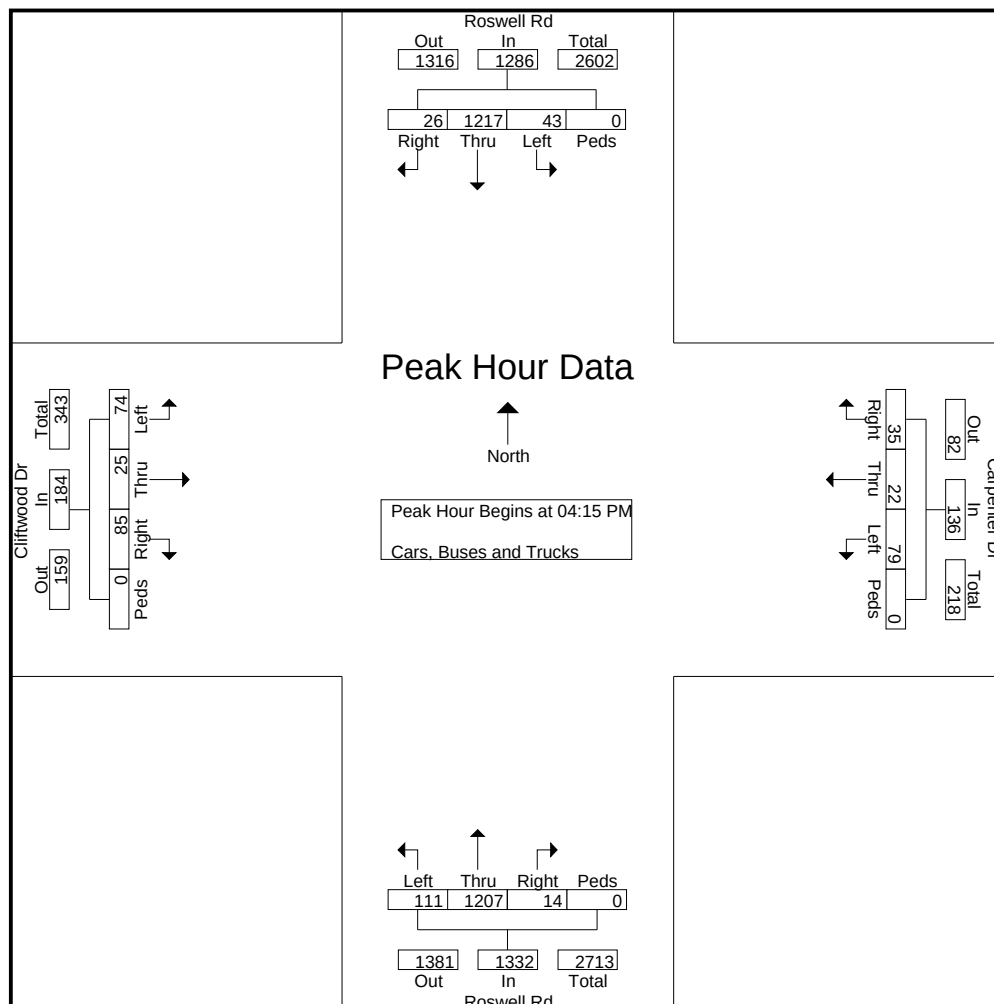
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Roswell Rd @ Cliftwood Dr/Carpenter Dr
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160006
Site Code : 44160006
Start Date : 10/6/2020
Page No : 3

	Roswell Rd Northbound					Roswell Rd Southbound					Cliftwood Dr Eastbound					Carpenter Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	25	316	6	0	347	11	318	5	0	334	20	8	19	0	47	18	3	12	0	33	761
04:30 PM	33	286	3	0	322	14	302	8	0	324	12	3	19	0	34	17	5	6	0	28	708
04:45 PM	27	307	2	0	336	11	278	5	0	294	25	8	22	0	55	30	6	9	0	45	730
05:00 PM	26	298	3	0	327	7	319	8	0	334	17	6	25	0	48	14	8	8	0	30	739
Total Volume	111	1207	14	0	1332	43	1217	26	0	1286	74	25	85	0	184	79	22	35	0	136	2938
% App. Total	8.3	90.6	1.1	0		3.3	94.6	2	0		40.2	13.6	46.2	0		58.1	16.2	25.7	0		
PHF	.841	.955	.583	.000	.960	.768	.954	.813	.000	.963	.740	.781	.850	.000	.836	.658	.688	.729	.000	.756	.965



Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Cliftwood Dr @ Parkside Shop Ctr
East Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160007
Site Code : 44160007
Start Date : 10/6/2020
Page No : 1

Groups Printed- Cars, Buses and Trucks

	Northbound					Parkside Shop Ctr East Access Southbound					Cliftwood Dr Eastbound					Cliftwood Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	1	0	1	0	19	0	0	19	0	21	1	0	22	42
07:15 AM	0	0	0	0	0	1	0	1	0	2	0	22	0	0	22	0	16	0	0	16	40
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	27	0	0	27	0	25	2	0	27	54
07:45 AM	0	0	0	0	0	1	0	1	0	2	2	31	0	0	33	0	27	2	0	29	64
Total	0	0	0	0	0	2	0	3	0	5	2	99	0	0	101	0	89	5	0	94	200
08:00 AM	0	0	0	0	0	1	0	0	0	1	2	27	0	0	29	0	25	3	0	28	58
08:15 AM	0	0	0	0	0	0	0	1	0	1	3	26	0	0	29	0	30	0	0	30	60
08:30 AM	0	0	0	0	0	3	0	0	0	3	1	31	0	0	32	0	17	3	0	20	55
08:45 AM	0	0	0	0	0	3	0	0	0	3	1	23	0	0	24	0	30	2	0	32	59
Total	0	0	0	0	0	7	0	1	0	8	7	107	0	0	114	0	102	8	0	110	232
*** BREAK ***																					
04:00 PM	0	0	0	0	0	8	0	6	0	14	2	36	0	0	38	0	24	4	0	28	80
04:15 PM	0	0	0	0	0	0	0	3	0	3	3	34	0	0	37	0	43	10	0	53	93
04:30 PM	0	0	0	0	0	4	0	3	0	7	5	37	0	0	42	0	38	3	0	41	90
04:45 PM	0	0	0	0	0	7	0	4	0	11	1	31	0	0	32	0	35	10	0	45	88
Total	0	0	0	0	0	19	0	16	0	35	11	138	0	0	149	0	140	27	0	167	351
05:00 PM	0	0	0	0	0	7	0	4	0	11	3	35	0	0	38	0	29	7	0	36	85
05:15 PM	0	0	0	0	0	10	0	6	0	16	3	33	0	0	36	0	36	8	0	44	96
05:30 PM	0	0	0	0	0	6	0	2	0	8	1	30	0	0	31	0	39	6	0	45	84
05:45 PM	0	0	0	0	0	6	0	3	0	9	5	26	0	0	31	0	35	11	0	46	86
Total	0	0	0	0	0	29	0	15	0	44	12	124	0	0	136	0	139	32	0	171	351
Grand Total	0	0	0	0	0	57	0	35	0	92	32	468	0	0	500	0	470	72	0	542	1134
Apprch %	0	0	0	0		62	0	38	0		6.4	93.6	0	0		0	86.7	13.3	0		
Total %	0	0	0	0	0	5	0	3.1	0	8.1	2.8	41.3	0	0	44.1	0	41.4	6.3	0	47.8	

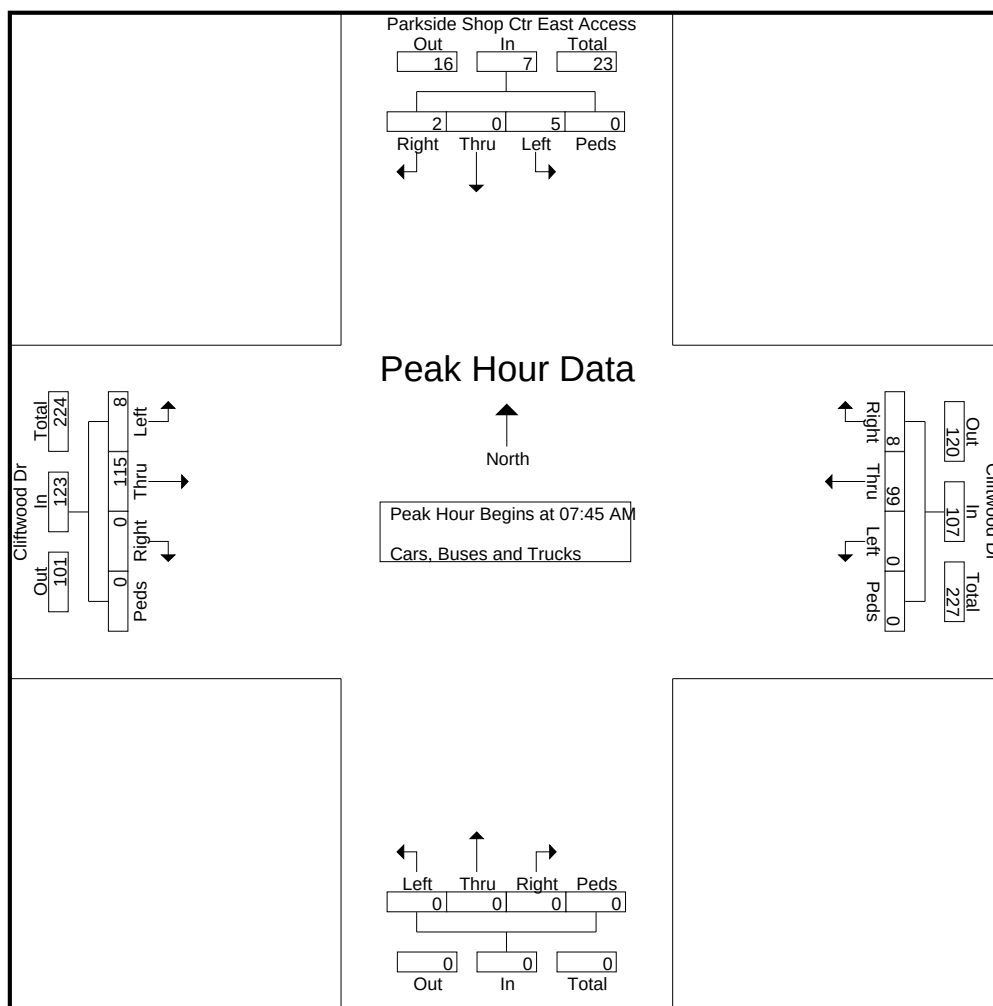
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Cliftwood Dr @ Parkside Shop Ctr
East Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160007
Site Code : 44160007
Start Date : 10/6/2020
Page No : 2

	Northbound					Parkside Shop Ctr East Access Southbound					Cliftwood Dr Eastbound					Cliftwood Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	0	0	1	0	1	0	2	2	31	0	0	33	0	27	2	0	29	64
08:00 AM	0	0	0	0	0	1	0	0	0	1	2	27	0	0	29	0	25	3	0	28	58
08:15 AM	0	0	0	0	0	0	0	1	0	1	3	26	0	0	29	0	30	0	0	30	60
08:30 AM	0	0	0	0	0	3	0	0	0	3	1	31	0	0	32	0	17	3	0	20	55
Total Volume	0	0	0	0	0	5	0	2	0	7	8	115	0	0	123	0	99	8	0	107	237
% App. Total						71.4		28.6				93.5					92.5				
PHF	.000	.000	.000	.000	.000	.417	.000	.500	.000	.583	.667	.927	.000	.000	.932	.000	.825	.667	.000	.892	.926



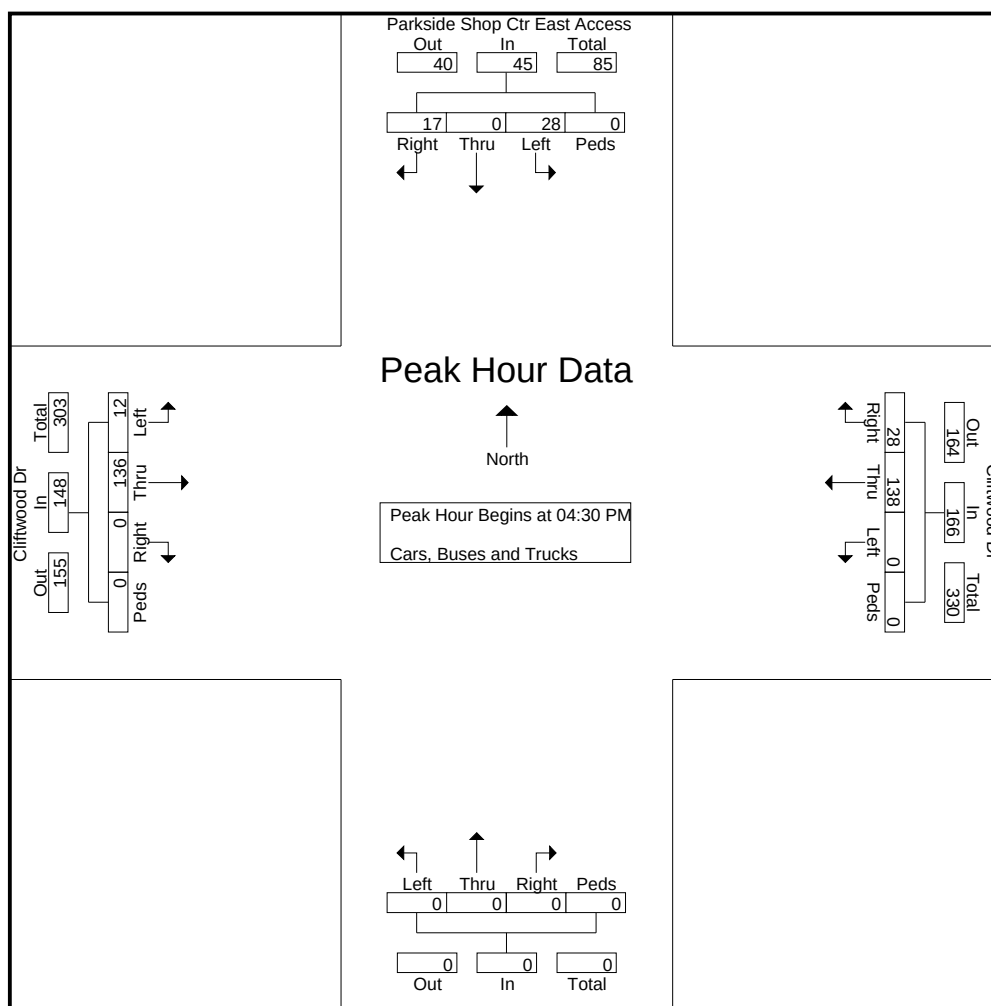
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Cliftwood Dr @ Parkside Shop Ctr
East Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160007
Site Code : 44160007
Start Date : 10/6/2020
Page No : 3

	Northbound					Parkside Shop Ctr East Access Southbound					Cliftwood Dr Eastbound					Cliftwood Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	4	0	3	0	7	5	37	0	0	42	0	38	3	0	41	90
04:45 PM	0	0	0	0	0	7	0	4	0	11	1	31	0	0	32	0	35	10	0	45	88
05:00 PM	0	0	0	0	0	7	0	4	0	11	3	35	0	0	38	0	29	7	0	36	85
05:15 PM	0	0	0	0	0	10	0	6	0	16	3	33	0	0	36	0	36	8	0	44	96
Total Volume	0	0	0	0	0	28	0	17	0	45	12	136	0	0	148	0	138	28	0	166	359
% App. Total						62.2		37.8			91.9					83.1	16.9				
PHF	.000	.000	.000	.000	.000	.700	.000	.708	.000	.703	.600	.919	.000	.000	.881	.000	.908	.700	.000	.922	.935



Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Cliftwood Dr @ Parkside Shop Ctr
West Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160008
Site Code : 44160008
Start Date : 10/6/2020
Page No : 1

Groups Printed- Cars, Buses and Trucks

	Northbound					Parkside Shop Ctr West Access Southbound					Cliftwood Dr Eastbound					Cliftwood Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	2	0	0	0	2	0	19	0	0	19	0	21	3	0	24	45
07:15 AM	0	0	0	0	0	0	0	1	0	1	0	22	0	0	22	0	19	3	0	22	45
07:30 AM	0	0	0	0	0	2	0	2	0	4	0	29	0	0	29	0	25	1	0	26	59
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	32	0	0	32	0	27	0	0	27	59
Total	0	0	0	0	0	4	0	3	0	7	0	102	0	0	102	0	92	7	0	99	208
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	29	0	0	29	0	29	0	0	29	58
08:15 AM	0	0	0	0	0	1	0	1	0	2	0	29	0	0	29	0	32	0	0	32	63
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	32	0	0	32	0	20	0	0	20	52
08:45 AM	0	0	0	0	0	0	0	0	0	0	1	24	0	0	25	0	28	2	0	30	55
Total	0	0	0	0	0	1	0	1	0	2	1	114	0	0	115	0	109	2	0	111	228
*** BREAK ***																					
04:00 PM	0	0	0	0	0	1	0	0	0	1	0	33	0	0	33	0	29	5	0	34	68
04:15 PM	0	0	0	0	0	1	0	0	0	1	1	36	0	0	37	0	40	3	0	43	81
04:30 PM	0	0	0	0	0	1	0	2	0	3	1	39	0	0	40	0	42	0	0	42	85
04:45 PM	0	0	0	0	0	0	0	1	0	1	2	34	0	0	36	0	38	3	0	41	78
Total	0	0	0	0	0	3	0	3	0	6	4	142	0	0	146	0	149	11	0	160	312
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	38	0	0	38	0	41	1	0	42	80
05:15 PM	0	0	0	0	0	1	0	0	0	1	0	40	0	0	40	0	44	1	0	45	86
05:30 PM	0	0	0	0	0	1	0	3	0	4	0	33	0	0	33	0	41	0	0	41	78
05:45 PM	0	0	0	0	0	1	0	2	0	3	0	29	0	0	29	0	36	0	0	36	68
Total	0	0	0	0	0	3	0	5	0	8	0	140	0	0	140	0	162	2	0	164	312
Grand Total	0	0	0	0	0	11	0	12	0	23	5	498	0	0	503	0	512	22	0	534	1060
Apprch %	0	0	0	0		47.8	0	52.2	0		1	99	0	0		0	95.9	4.1	0		
Total %	0	0	0	0	0	1	0	1.1	0	2.2	0.5	47	0	0	47.5	0	48.3	2.1	0	50.4	

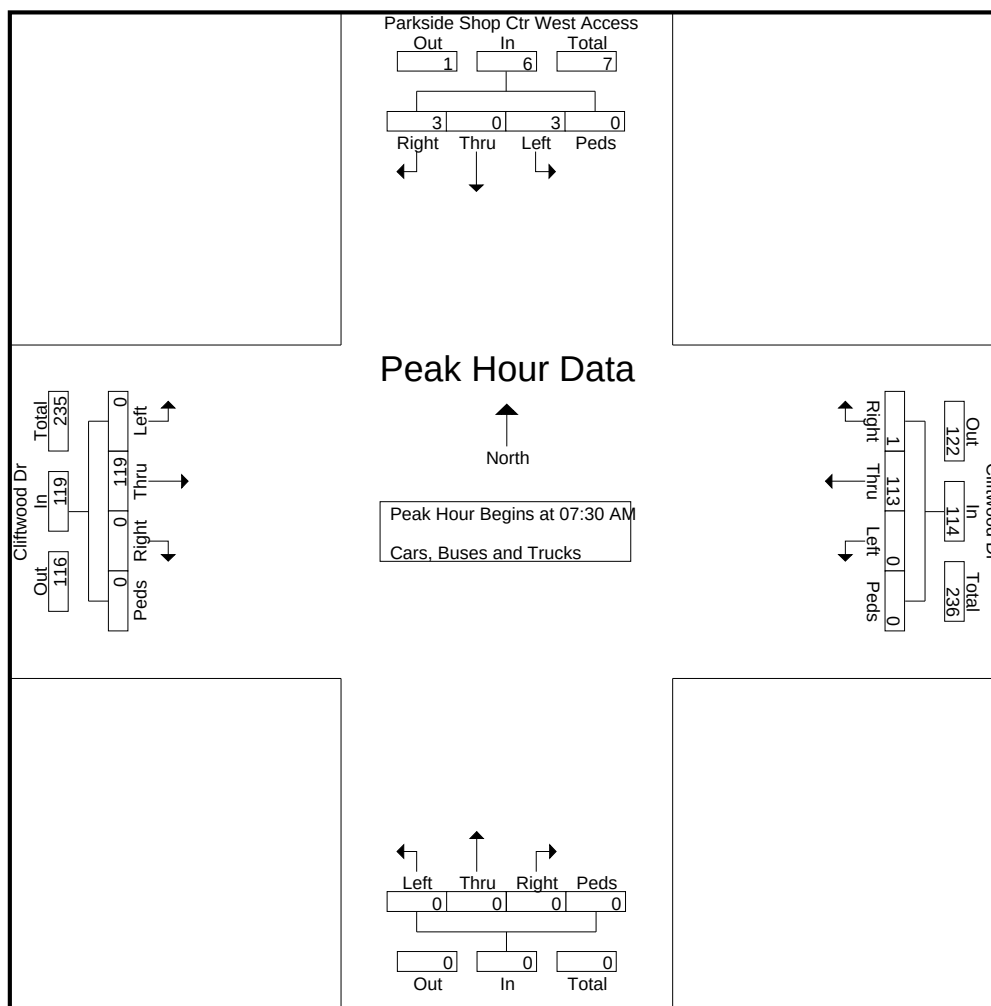
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Cliftwood Dr @ Parkside Shop Ctr
West Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160008
Site Code : 44160008
Start Date : 10/6/2020
Page No : 2

	Northbound					Parkside Shop Ctr West Access Southbound					Cliftwood Dr Eastbound					Cliftwood Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	2	0	2	0	4	0	29	0	0	29	0	25	1	0	26	59
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	32	0	0	32	0	27	0	0	27	59
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	29	0	0	29	0	29	0	0	29	58
08:15 AM	0	0	0	0	0	1	0	1	0	2	0	29	0	0	29	0	32	0	0	32	63
Total Volume	0	0	0	0	0	3	0	3	0	6	0	119	0	0	119	0	113	1	0	114	239
% App. Total																99.1					
PHF	.000	.000	.000	.000	.000	.375	.000	.375	.000	.375	.000	.930	.000	.000	.930	.000	.883	.250	.000	.891	.948



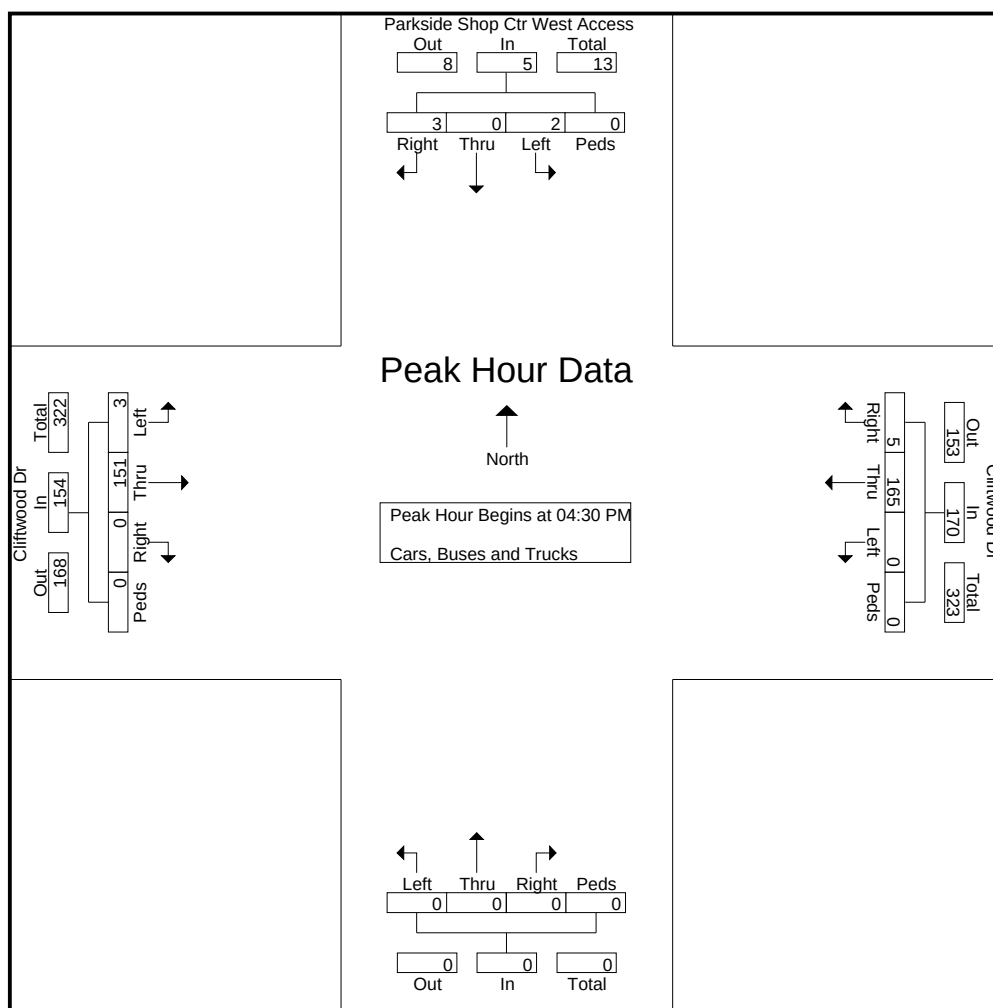
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Cliftwood Dr @ Parkside Shop Ctr
West Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160008
Site Code : 44160008
Start Date : 10/6/2020
Page No : 3

	Northbound					Parkside Shop Ctr West Access Southbound					Cliftwood Dr Eastbound					Cliftwood Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	1	0	2	0	3	1	39	0	0	40	0	42	0	0	42	85
04:45 PM	0	0	0	0	0	0	0	1	0	1	2	34	0	0	36	0	38	3	0	41	78
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	38	0	0	38	0	41	1	0	42	80
05:15 PM	0	0	0	0	0	1	0	0	0	1	0	40	0	0	40	0	44	1	0	45	86
Total Volume	0	0	0	0	0	2	0	3	0	5	3	151	0	0	154	0	165	5	0	170	329
% App. Total												98.1					97.1				
PHF	.000	.000	.000	.000	.000	.500	.000	.375	.000	.417	.375	.944	.000	.000	.963	.000	.938	.417	.000	.944	.956



Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Sandy Springs Circle @ Cliftwood Dr
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160009
Site Code : 44160009
Start Date : 10/6/2020
Page No : 1

Groups Printed- Cars, Buses and Trucks

	Sandy Springs Circle Northbound					Sandy Springs Circle Southbound					Cliftwood Dr Eastbound					Cliftwood Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	8	10	2	0	20	13	6	0	0	19	0	5	1	0	6	3	19	6	0	28	73
07:15 AM	2	12	4	0	18	24	11	1	0	36	0	7	1	0	8	2	12	8	0	22	84
07:30 AM	0	15	3	0	18	16	13	0	0	29	1	8	3	0	12	11	8	11	0	30	89
07:45 AM	0	13	5	0	18	19	28	3	0	50	0	4	1	0	5	8	9	8	0	25	98
Total	10	50	14	0	74	72	58	4	0	134	1	24	6	0	31	24	48	33	0	105	344
08:00 AM	0	18	2	0	20	15	19	3	0	37	1	9	0	0	10	8	6	11	0	25	92
08:15 AM	0	15	5	0	20	20	26	1	0	47	0	10	1	0	11	7	8	15	0	30	108
08:30 AM	0	12	6	0	18	14	24	0	0	38	1	1	0	0	2	4	11	19	0	34	92
08:45 AM	0	6	2	0	8	20	12	1	0	33	2	7	2	0	11	3	10	17	0	30	82
Total	0	51	15	0	66	69	81	5	0	155	4	27	3	0	34	22	35	62	0	119	374
*** BREAK ***																					
04:00 PM	2	20	10	0	32	13	25	4	0	42	4	5	4	0	13	10	3	19	0	32	119
04:15 PM	0	22	7	0	29	25	31	2	0	58	0	4	2	0	6	9	5	22	0	36	129
04:30 PM	0	25	9	0	34	26	20	1	0	47	3	7	0	0	10	5	4	28	0	37	128
04:45 PM	4	16	6	0	26	21	16	6	0	43	5	7	0	0	12	6	10	25	0	41	122
Total	6	83	32	0	121	85	92	13	0	190	12	23	6	0	41	30	22	94	0	146	498
05:00 PM	0	21	7	0	28	23	31	3	0	57	0	12	0	0	12	7	7	26	0	40	137
05:15 PM	0	19	11	0	30	19	18	2	0	39	2	2	1	0	5	9	6	32	0	47	121
05:30 PM	1	23	6	0	30	15	19	0	0	34	1	11	1	0	13	12	9	28	0	49	126
05:45 PM	0	19	6	0	25	14	23	0	0	37	2	5	1	0	8	4	9	25	0	38	108
Total	1	82	30	0	113	71	91	5	0	167	5	30	3	0	38	32	31	111	0	174	492
Grand Total	17	266	91	0	374	297	322	27	0	646	22	104	18	0	144	108	136	300	0	544	1708
Apprch %	4.5	71.1	24.3	0		46	49.8	4.2	0		15.3	72.2	12.5	0		19.9	25	55.1	0		
Total %	1	15.6	5.3	0	21.9	17.4	18.9	1.6	0	37.8	1.3	6.1	1.1	0	8.4	6.3	8	17.6	0	31.9	

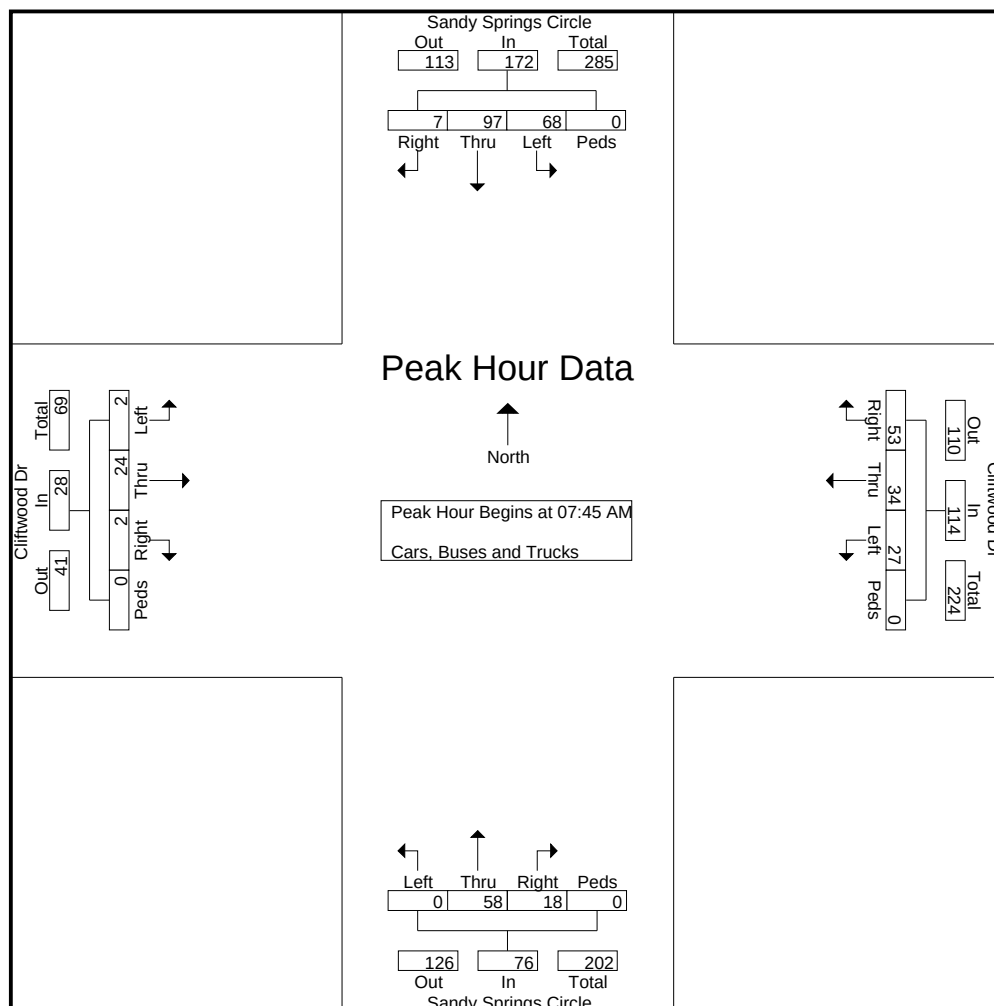
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Sandy Springs Circle @ Cliftwood Dr
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160009
Site Code : 44160009
Start Date : 10/6/2020
Page No : 2

	Sandy Springs Circle Northbound					Sandy Springs Circle Southbound					Cliftwood Dr Eastbound					Cliftwood Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	13	5	0	18	19	28	3	0	50	0	4	1	0	5	8	9	8	0	25	98
08:00 AM	0	18	2	0	20	15	19	3	0	37	1	9	0	0	10	8	6	11	0	25	92
08:15 AM	0	15	5	0	20	20	26	1	0	47	0	10	1	0	11	7	8	15	0	30	108
08:30 AM	0	12	6	0	18	14	24	0	0	38	1	1	0	0	2	4	11	19	0	34	92
Total Volume	0	58	18	0	76	68	97	7	0	172	2	24	2	0	28	27	34	53	0	114	390
% App. Total		76.3	23.7			39.5	56.4					85.7				23.7	29.8	46.5			
PHF	.000	.806	.750	.000	.950	.850	.866	.583	.000	.860	.500	.600	.500	.000	.636	.844	.773	.697	.000	.838	.903



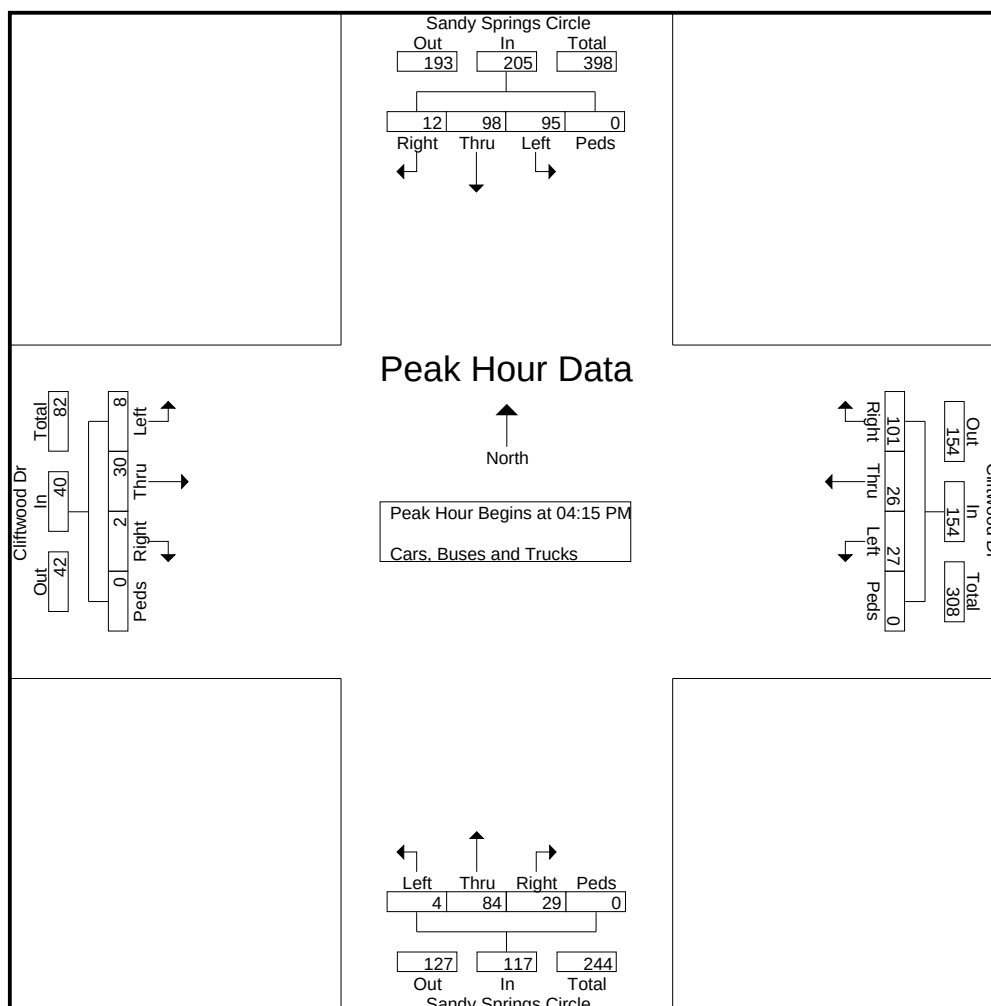
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Sandy Springs Circle @ Cliftwood Dr
Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160009
Site Code : 44160009
Start Date : 10/6/2020
Page No : 3

	Sandy Springs Circle Northbound					Sandy Springs Circle Southbound					Cliftwood Dr Eastbound					Cliftwood Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	22	7	0	29	25	31	2	0	58	0	4	2	0	6	9	5	22	0	36	129
04:30 PM	0	25	9	0	34	26	20	1	0	47	3	7	0	0	10	5	4	28	0	37	128
04:45 PM	4	16	6	0	26	21	16	6	0	43	5	7	0	0	12	6	10	25	0	41	122
05:00 PM	0	21	7	0	28	23	31	3	0	57	0	12	0	0	12	7	7	26	0	40	137
Total Volume	4	84	29	0	117	95	98	12	0	205	8	30	2	0	40	27	26	101	0	154	516
% App. Total		71.8	24.8			46.3	47.8									17.5	16.9	65.6			
PHF	.250	.840	.806	.000	.860	.913	.790	.500	.000	.884	.400	.625	.250	.000	.833	.750	.650	.902	.000	.939	.942



Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Sandy Springs Circle @ Parkside Shop Ctr
South Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160010
Site Code : 44160010
Start Date : 10/6/2020
Page No : 1

Groups Printed- Cars, Buses and Trucks

	Sandy Springs Circle Northbound					Sandy Springs Circle Southbound					Eastbound					Parkside Shop Ctr South Access Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	18	0	0	18	2	24	0	0	26	0	0	0	0	0	1	0	2	0	3	47
07:15 AM	0	22	0	0	22	2	31	0	0	33	0	0	0	0	0	2	0	1	0	3	58
07:30 AM	0	25	0	0	25	0	36	0	0	36	0	0	0	0	0	0	0	0	0	0	61
07:45 AM	0	28	0	0	28	1	48	0	0	49	0	0	0	0	0	0	0	0	0	0	77
Total	0	93	0	0	93	5	139	0	0	144	0	0	0	0	0	3	0	3	0	6	243
08:00 AM	0	25	0	0	25	0	33	0	0	33	0	0	0	0	0	0	0	3	0	3	61
08:15 AM	0	30	0	0	30	1	47	0	0	48	0	0	0	0	0	0	0	0	0	0	78
08:30 AM	0	31	0	0	31	1	35	0	0	36	0	0	0	0	0	1	0	0	0	1	68
08:45 AM	0	24	0	0	24	2	30	0	0	32	0	0	0	0	0	1	0	1	0	2	58
Total	0	110	0	0	110	4	145	0	0	149	0	0	0	0	0	2	0	4	0	6	265
*** BREAK ***																					
04:00 PM	0	36	5	0	41	2	48	0	0	50	0	0	0	0	0	1	0	1	0	2	93
04:15 PM	0	39	2	0	41	0	52	0	0	52	0	0	0	0	0	3	0	7	0	10	103
04:30 PM	0	51	1	0	52	1	44	0	0	45	0	0	0	0	0	0	0	1	0	1	98
04:45 PM	0	45	1	0	46	0	39	0	0	39	0	0	0	0	0	1	0	1	0	2	87
Total	0	171	9	0	180	3	183	0	0	186	0	0	0	0	0	5	0	10	0	15	381
05:00 PM	0	48	0	0	48	0	54	0	0	54	0	0	0	0	0	0	0	1	0	1	103
05:15 PM	0	45	2	0	47	0	38	0	0	38	0	0	0	0	0	0	0	3	0	3	88
05:30 PM	0	49	0	0	49	0	31	0	0	31	0	0	0	0	0	0	0	3	0	3	83
05:45 PM	0	47	0	0	47	0	38	0	0	38	0	0	0	0	0	1	0	0	0	1	86
Total	0	189	2	0	191	0	161	0	0	161	0	0	0	0	0	1	0	7	0	8	360
Grand Total	0	563	11	0	574	12	628	0	0	640	0	0	0	0	0	11	0	24	0	35	1249
Apprch %	0	98.1	1.9	0		1.9	98.1	0	0		0	0	0	0		31.4	0	68.6	0		
Total %	0	45.1	0.9	0	46	1	50.3	0	0	51.2	0	0	0	0	0	0.9	0	1.9	0	2.8	

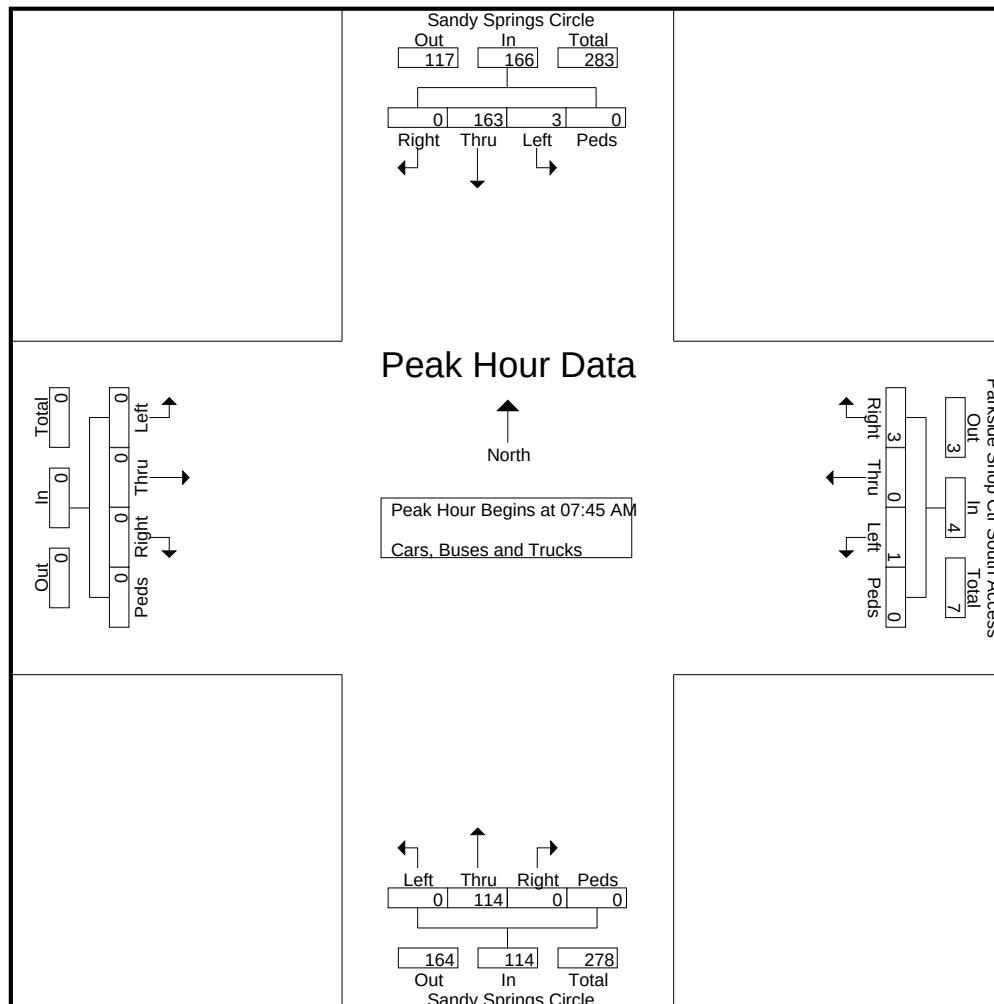
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Sandy Springs Circle @ Parkside Shop Ctr
South Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160010
Site Code : 44160010
Start Date : 10/6/2020
Page No : 2

	Sandy Springs Circle Northbound					Sandy Springs Circle Southbound					Eastbound					Parkside Shop Ctr South Access Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	28	0	0	28	1	48	0	0	49	0	0	0	0	0	0	0	0	0	0	77
08:00 AM	0	25	0	0	25	0	33	0	0	33	0	0	0	0	0	0	0	3	0	3	61
08:15 AM	0	30	0	0	30	1	47	0	0	48	0	0	0	0	0	0	0	0	0	0	78
08:30 AM	0	31	0	0	31	1	35	0	0	36	0	0	0	0	0	1	0	0	0	1	68
Total Volume	0	114	0	0	114	3	163	0	0	166	0	0	0	0	0	1	0	3	0	4	284
% App. Total							98.2														
PHF	.000	.919	.000	.000	.919	.750	.849	.000	.000	.847	.000	.000	.000	.000	.000	.250	.000	.250	.000	.333	.910



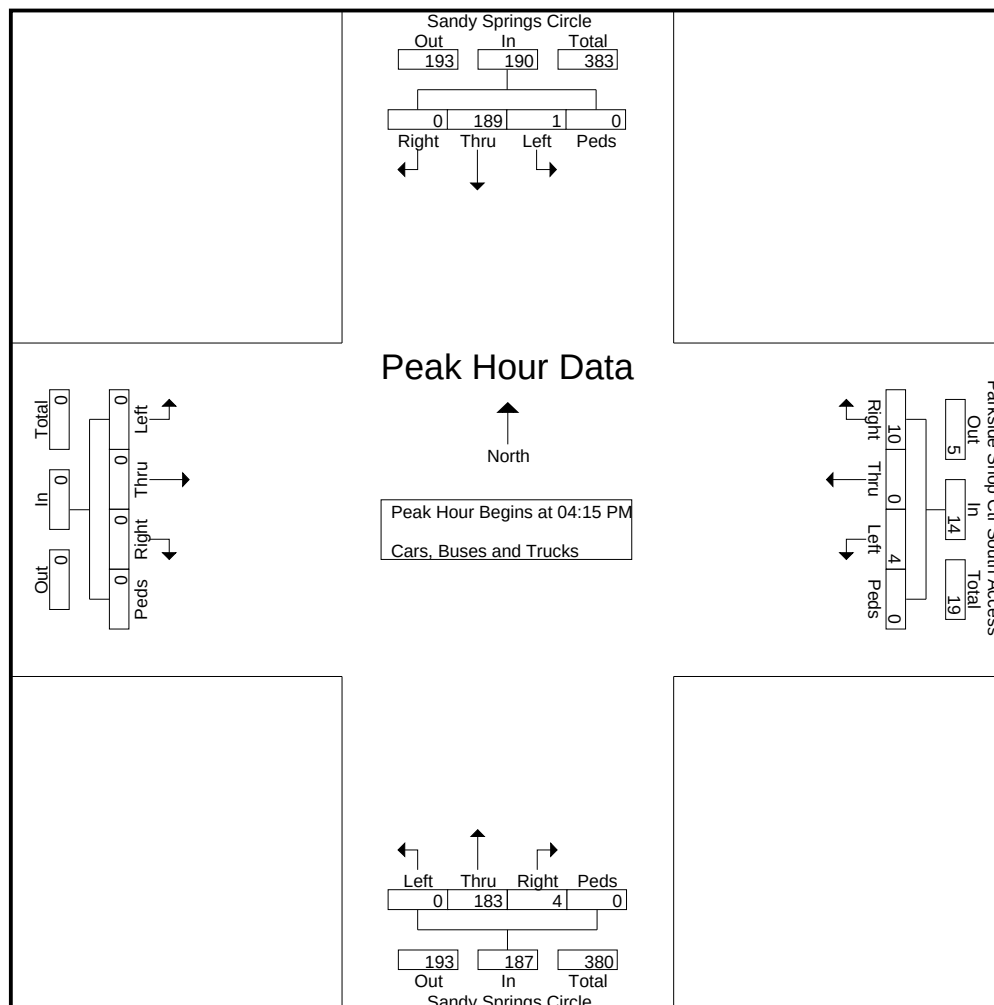
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Sandy Springs Circle @ Parkside Shop Ctr
South Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160010
Site Code : 44160010
Start Date : 10/6/2020
Page No : 3

	Sandy Springs Circle Northbound					Sandy Springs Circle Southbound					Eastbound					Parkside Shop Ctr South Access Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	39	2	0	41	0	52	0	0	52	0	0	0	0	0	3	0	7	0	10	103
04:30 PM	0	51	1	0	52	1	44	0	0	45	0	0	0	0	0	0	0	1	0	1	98
04:45 PM	0	45	1	0	46	0	39	0	0	39	0	0	0	0	0	1	0	1	0	2	87
05:00 PM	0	48	0	0	48	0	54	0	0	54	0	0	0	0	0	0	0	1	0	1	103
Total Volume	0	183	4	0	187	1	189	0	0	190	0	0	0	0	0	4	0	10	0	14	391
% App. Total		97.9					99.5									28.6		71.4			
PHF	.000	.897	.500	.000	.899	.250	.875	.000	.000	.880	.000	.000	.000	.000	.000	.333	.000	.357	.000	.350	.949



Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Sandy Springs Circle @ Parkside Shop Ctr
North Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160011
Site Code : 44160011
Start Date : 10/6/2020
Page No : 1

Groups Printed- Cars, Buses and Trucks

	Sandy Springs Circle Northbound					Sandy Springs Circle Southbound					Eastbound					Parkside Shop Ctr North Access Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	13	1	0	14	1	32	0	0	33	0	0	0	0	0	0	0	3	0	3	50
07:15 AM	0	12	0	0	12	1	31	0	0	32	0	0	0	0	0	0	0	0	0	0	44
07:30 AM	0	31	0	0	31	3	30	0	0	33	0	0	0	0	0	0	0	2	0	2	66
07:45 AM	0	20	0	0	20	3	54	0	0	57	0	0	0	0	0	1	0	0	0	1	78
Total	0	76	1	0	77	8	147	0	0	155	0	0	0	0	0	1	0	5	0	6	238
08:00 AM	0	31	0	0	31	0	39	0	0	39	0	0	0	0	0	0	0	0	0	0	70
08:15 AM	0	23	1	0	24	3	47	0	0	50	0	0	0	0	0	0	0	1	0	1	75
08:30 AM	0	31	1	0	32	3	35	0	0	38	0	0	0	0	0	0	0	3	0	3	73
08:45 AM	0	26	0	0	26	5	32	0	0	37	0	0	0	0	0	0	0	1	0	1	64
Total	0	111	2	0	113	11	153	0	0	164	0	0	0	0	0	0	0	5	0	5	282
*** BREAK ***																					
04:00 PM	0	47	0	0	47	2	40	0	0	42	0	0	0	0	0	0	0	7	0	7	96
04:15 PM	0	40	0	0	40	11	53	0	0	64	0	0	0	0	0	0	0	10	0	10	114
04:30 PM	0	52	2	0	54	3	49	0	0	52	0	0	0	0	0	0	0	4	0	4	110
04:45 PM	0	43	0	0	43	4	36	0	0	40	0	0	0	0	0	3	0	6	0	9	92
Total	0	182	2	0	184	20	178	0	0	198	0	0	0	0	0	3	0	27	0	30	412
05:00 PM	0	47	2	0	49	8	55	0	0	63	0	0	0	0	0	0	0	10	0	10	122
05:15 PM	0	57	1	0	58	8	32	0	0	40	0	0	0	0	0	0	0	11	0	11	109
05:30 PM	0	52	0	0	52	4	38	0	0	42	0	0	0	0	0	0	0	8	0	8	102
05:45 PM	0	49	1	0	50	4	40	0	0	44	0	0	0	0	0	0	0	7	0	7	101
Total	0	205	4	0	209	24	165	0	0	189	0	0	0	0	0	0	0	36	0	36	434
Grand Total	0	574	9	0	583	63	643	0	0	706	0	0	0	0	0	4	0	73	0	77	1366
Apprch %	0	98.5	1.5	0		8.9	91.1	0	0		0	0	0	0		5.2	0	94.8	0		
Total %	0	42	0.7	0	42.7	4.6	47.1	0	0	51.7	0	0	0	0	0	0.3	0	5.3	0	5.6	

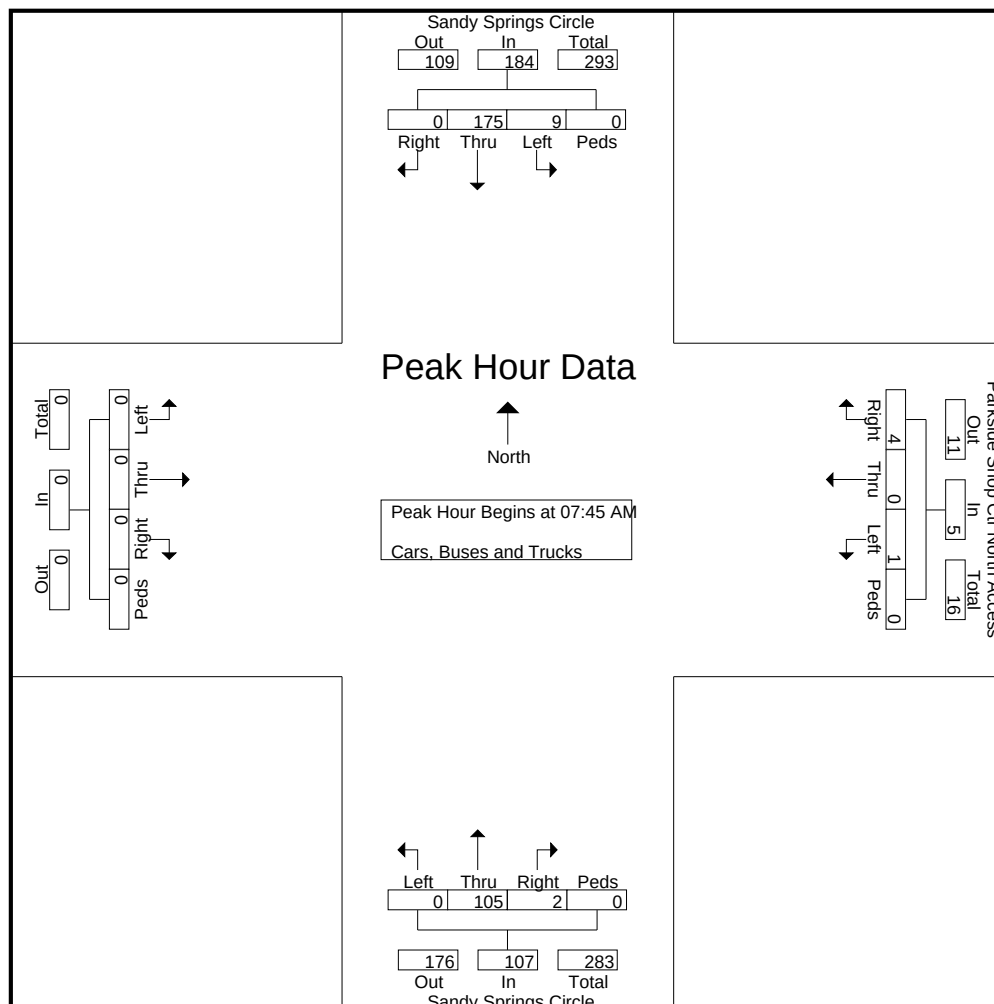
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Sandy Springs Circle @ Parkside Shop Ctr
North Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160011
Site Code : 44160011
Start Date : 10/6/2020
Page No : 2

	Sandy Springs Circle Northbound					Sandy Springs Circle Southbound					Eastbound					Parkside Shop Ctr North Access Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	20	0	0	20	3	54	0	0	57	0	0	0	0	0	1	0	0	0	1	78
08:00 AM	0	31	0	0	31	0	39	0	0	39	0	0	0	0	0	0	0	0	0	0	70
08:15 AM	0	23	1	0	24	3	47	0	0	50	0	0	0	0	0	0	0	1	0	1	75
08:30 AM	0	31	1	0	32	3	35	0	0	38	0	0	0	0	0	0	0	3	0	3	73
Total Volume	0	105	2	0	107	9	175	0	0	184	0	0	0	0	0	1	0	4	0	5	296
% App. Total		98.1					95.1														
PHF	.000	.847	.500	.000	.836	.750	.810	.000	.000	.807	.000	.000	.000	.000	.000	.250	.000	.333	.000	.417	.949



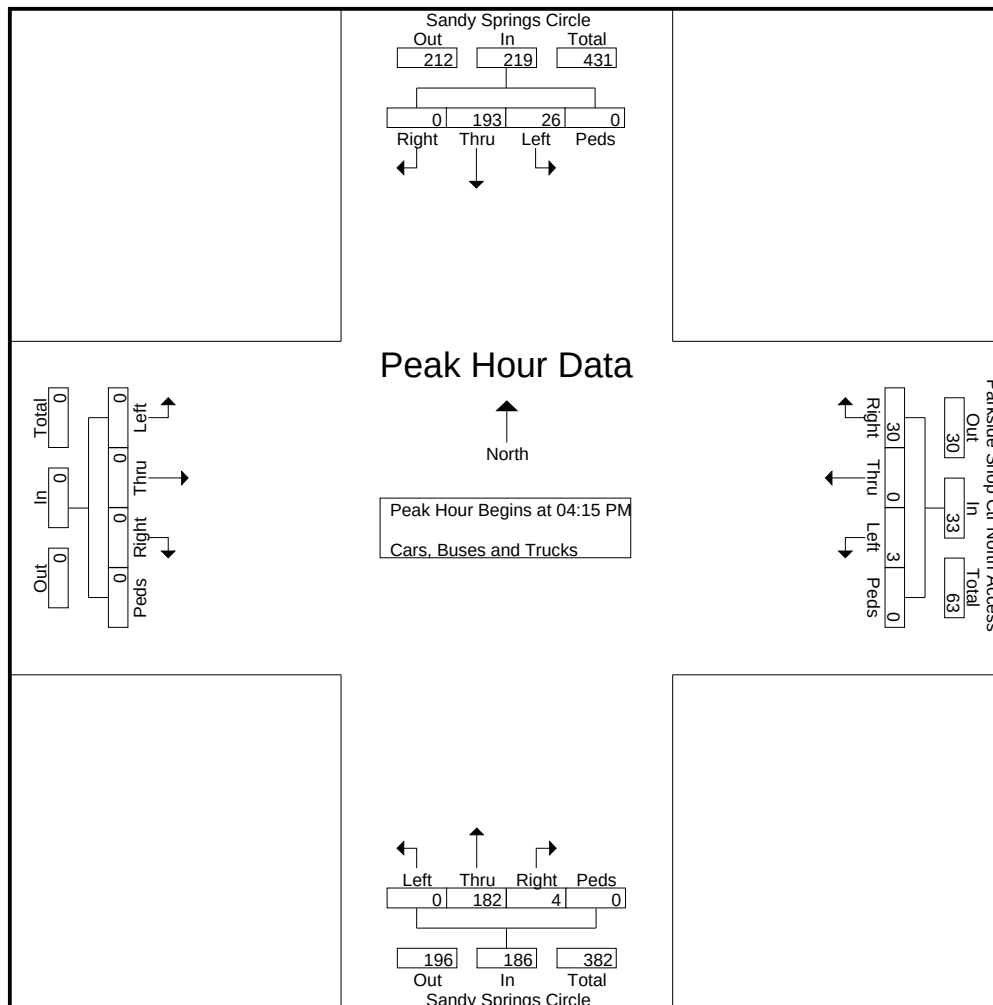
Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

TMC Data
Sandy Springs Circle @ Parkside Shop Ctr
North Access, Sandy Springs, GA
7-9 AM | 4-6 PM

File Name : 44160011
Site Code : 44160011
Start Date : 10/6/2020
Page No : 3

	Sandy Springs Circle Northbound					Sandy Springs Circle Southbound					Eastbound					Parkside Shop Ctr North Access Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	40	0	0	40	11	53	0	0	64	0	0	0	0	0	0	0	10	0	10	114
04:30 PM	0	52	2	0	54	3	49	0	0	52	0	0	0	0	0	0	0	4	0	4	110
04:45 PM	0	43	0	0	43	4	36	0	0	40	0	0	0	0	0	3	0	6	0	9	92
05:00 PM	0	47	2	0	49	8	55	0	0	63	0	0	0	0	0	0	0	10	0	10	122
Total Volume	0	182	4	0	186	26	193	0	0	219	0	0	0	0	0	3	0	30	0	33	438
% App. Total		97.8				11.9	88.1											90.9			
PHF	.000	.875	.500	.000	.861	.591	.877	.000	.000	.855	.000	.000	.000	.000	.000	.250	.000	.750	.000	.825	.898



Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

Page 1

ADT Data

Site Code: 44160101
Hammond Dr between Hammond Exchange
Shpping Ctr signalized and west drwys

Start Time	06-Oct-20 Tue	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		15	103			2	108				
12:15		11	124			1	100				
12:30		9	128			0	106				
12:45		4	124	39	479	0	127	3	441	42	920
01:00		2	100			2	104				
01:15		1	107			2	98				
01:30		0	119			0	120				
01:45		2	110	5	436	0	101	4	423	9	859
02:00		3	100			1	112				
02:15		3	98			1	132				
02:30		1	117			2	121				
02:45		0	135	7	450	2	131	6	496	13	946
03:00		2	153			2	124				
03:15		1	112			4	130				
03:30		0	108			8	105				
03:45		2	113	5	486	9	96	23	455	28	941
04:00		1	108			12	105				
04:15		0	102			15	108				
04:30		2	98			23	105				
04:45		3	93	6	401	17	113	67	431	73	832
05:00		9	104			24	110				
05:15		2	98			49	108				
05:30		5	87			41	102				
05:45		3	98	19	387	57	96	171	416	190	803
06:00		15	96			38	82				
06:15		9	88			63	79				
06:30		22	104			58	76				
06:45		25	92	71	380	44	70	203	307	274	687
07:00		42	69			41	66				
07:15		51	64			52	126				
07:30		63	62			49	106				
07:45		67	74	223	269	47	39	189	337	412	606
08:00		82	50			54	28				
08:15		89	40			56	27				
08:30		85	33			53	25				
08:45		68	26	324	149	57	14	220	94	544	243
09:00		59	35			69	13				
09:15		63	26			47	23				
09:30		67	38			57	9				
09:45		91	23	280	122	65	6	238	51	518	173
10:00		82	23			76	7				
10:15		77	16			68	7				
10:30		75	46			86	3				
10:45		77	13	311	98	92	3	322	20	633	118
11:00		90	14			117	6				
11:15		101	11			119	4				
11:30		81	14			108	6				
11:45		108	9	380	48	127	3	471	19	851	67
Total		1670	3705			1917	3490			3587	7195
Percent		31.1%	68.9%			35.5%	64.5%			33.3%	66.7%
Grand Total		1670	3705			1917	3490			3587	7195
Percent		31.1%	68.9%			35.5%	64.5%			33.3%	66.7%
ADT		ADT 10,782		AADT 10,782							

Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

Page 1

ADT Data

Site Code: 44160102
Roswell Rd north of Cliftwood Dr
Sandy Springs, GA

Start Time	06-Oct-20 Tue	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		10	288			12	308				
12:15		15	295			15	347				
12:30		15	303			15	286				
12:45		18	269	58	1155	9	318	51	1259	109	2414
01:00		13	276			19	303				
01:15		10	309			15	322				
01:30		18	280			15	268				
01:45		19	318	60	1183	9	290	58	1183	118	2366
02:00		21	320			13	270				
02:15		16	328			19	307				
02:30		25	293			25	297				
02:45		36	307	98	1248	22	296	79	1170	177	2418
03:00		32	349			36	295				
03:15		35	318			22	279				
03:30		54	299			29	304				
03:45		88	294	209	1260	55	338	142	1216	351	2476
04:00		88	319			62	337				
04:15		99	348			65	327				
04:30		138	287			94	316				
04:45		191	320	516	1274	90	267	311	1247	827	2521
05:00		194	297			118	324				
05:15		191	306			125	330				
05:30		242	294			171	312				
05:45		250	273	877	1170	217	284	631	1250	1508	2420
06:00		292	237			231	262				
06:15		270	249			213	241				
06:30		242	266			200	227				
06:45		251	147	1055	899	212	219	856	949	1911	1848
07:00		253	104			209	192				
07:15		234	136			206	194				
07:30		255	123			214	279				
07:45		267	118	1009	481	205	188	834	853	1843	1334
08:00		285	89			236	156				
08:15		263	224			239	133				
08:30		309	163			250	114				
08:45		278	157	1135	633	243	95	968	498	2103	1131
09:00		257	62			253	78				
09:15		272	67			283	85				
09:30		296	52			276	70				
09:45		314	57	1139	238	273	61	1085	294	2224	532
10:00		270	35			287	61				
10:15		332	35			306	55				
10:30		339	39			305	39				
10:45		295	28	1236	137	370	35	1268	190	2504	327
11:00		305	31			342	32				
11:15		311	23			322	30				
11:30		296	23			297	30				
11:45		265	23	1177	100	319	15	1280	107	2457	207
Total		8569	9778			7563	10216			16132	19994
Percent		46.7%	53.3%			42.5%	57.5%			44.7%	55.3%
Grand Total		8569	9778			7563	10216			16132	19994
Percent		46.7%	53.3%			42.5%	57.5%			44.7%	55.3%
ADT		ADT 36,126		AADT 36,126							

Reliable Traffic Data Services

ADT Data

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

Site Code: 44160103
Cliftwood Dr east of
Sandy Springs Circle, Sandy Springs, GA

Start Time	06-Oct-20 Tue	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		1	34			2	32				
12:15		0	41			2	38				
12:30		0	43			1	49				
12:45		0	41	1	159	0	43	5	162	6	321
01:00		0	36			2	41				
01:15		0	39			2	54				
01:30		1	25			2	37				
01:45		2	32	3	132	1	33	7	165	10	297
02:00		0	35			0	45				
02:15		0	33			0	40				
02:30		0	57			1	34				
02:45		0	38	0	163	0	38	1	157	1	320
03:00		0	37			0	44				
03:15		0	46			0	52				
03:30		1	45			0	40				
03:45		0	40	1	168	0	33	0	169	1	337
04:00		0	35			0	36				
04:15		0	39			1	39				
04:30		1	35			0	36				
04:45		0	38	1	147	0	38	1	149	2	296
05:00		0	41			1	42				
05:15		0	37			1	40				
05:30		2	39			3	39				
05:45		1	32	3	149	3	42	8	163	11	312
06:00		1	37			8	48				
06:15		13	35			13	33				
06:30		4	35			20	27				
06:45		9	25	27	132	21	39	62	147	89	279
07:00		18	27			35	35				
07:15		41	20			20	27				
07:30		20	20			19	31				
07:45		22	18	101	85	28	14	102	107	203	192
08:00		28	21			28	34				
08:15		35	9			36	29				
08:30		28	18			24	25				
08:45		25	14	116	62	39	18	127	106	243	168
09:00		30	17			21	15				
09:15		24	11			24	10				
09:30		26	6			27	5				
09:45		36	5	116	39	30	8	102	38	218	77
10:00		19	5			29	8				
10:15		26	2			31	9				
10:30		26	6			33	3				
10:45		28	2	99	15	24	3	117	23	216	38
11:00		34	2			30	2				
11:15		20	4			28	2				
11:30		30	3			31	4				
11:45		41	2	125	11	43	2	132	10	257	21
Total		593	1262			664	1396			1257	2658
Percent		32.0%	68.0%			32.2%	67.8%			32.1%	67.9%
Grand Total		593	1262			664	1396			1257	2658
Percent		32.0%	68.0%			32.2%	67.8%			32.1%	67.9%
ADT		ADT 3,915		AADT 3,915							

Reliable Traffic Data Services

Tel: (770) 578-8158 | Fax: (770) 578-8159
Info@reliabletraffic.org | www.reliabletraffic.org

Page 1

ADT Data

Site Code: 44160104
Sandy Springs Circle north of
Cliftwood Dr, Sandy Springs, GA

Start Time	06-Oct-20 Tue	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	55			1	48				
12:15		1	48			0	57				
12:30		0	45			0	75				
12:45		0	38	1	186	0	40	1	220	2	406
01:00		0	62			0	51				
01:15		0	52			0	60				
01:30		0	39			0	42				
01:45		0	46	0	199	0	55	0	208	0	407
02:00		0	62			0	44				
02:15		0	46			0	52				
02:30		0	36			0	62				
02:45		0	43	0	187	1	49	1	207	1	394
03:00		2	42			0	43				
03:15		1	46			0	50				
03:30		3	53			1	49				
03:45		2	41	8	182	2	48	3	190	11	372
04:00		2	54			3	45				
04:15		5	45			11	52				
04:30		7	39			7	46				
04:45		12	42	26	180	12	40	33	183	59	363
05:00		8	53			23	45				
05:15		11	49			32	42				
05:30		19	46			25	39				
05:45		29	41	67	189	31	36	111	162	178	351
06:00		29	51			32	32				
06:15		22	48			44	23				
06:30		25	42			20	18				
06:45		32	14	108	155	26	16	122	89	230	244
07:00		26	13			28	28				
07:15		20	9			36	14				
07:30		28	5			39	10				
07:45		25	5	99	32	31	12	134	64	233	96
08:00		21	5			34	11				
08:15		35	5			25	3				
08:30		28	5			37	5				
08:45		28	2	112	17	40	4	136	23	248	40
09:00		38	1			47	5				
09:15		34	5			38	3				
09:30		40	2			44	4				
09:45		31	1	143	9	42	4	171	16	314	25
10:00		40	2			59	5				
10:15		42	1			54	0				
10:30		51	1			60	4				
10:45		45	0	178	4	51	0	224	9	402	13
11:00		44	2			55	0				
11:15		45	1			61	0				
11:30		44	3			57	2				
11:45		39	0	172	6	62	2	235	4	407	10
Total		914	1346			1171	1375			2085	2721
Percent		40.4%	59.6%			46.0%	54.0%			43.4%	56.6%
Grand Total		914	1346			1171	1375			2085	2721
Percent		40.4%	59.6%			46.0%	54.0%			43.4%	56.6%
ADT		ADT 4,806		AADT 4,806							

Appendix B

Intersection Analysis Methodology

Intersection Analysis Methodology

The methodology used for evaluating traffic operations at intersections is presented in the Transportation Research Board's *Highway Capacity Manual*, 2016 edition (HCM 6). Synchro 10 software, which emulates the HCM 6 methodology, was used for all analyses. The following is an overview of the methodology employed for the analysis of signalized intersections and roundabouts and stop-sign controlled (unsignalized) intersections. Levels of service (LOS) are assigned letters A through F. LOS A indicates operations with very low control delay while LOS F describes operations with high control delay. LOS F is considered to be unacceptable by most drivers, while LOS E is typically considered to be the limit of acceptable delay.

Signalized Intersections and Roundabouts – Level of service for a signalized intersection and a roundabout is defined in terms of control delay per vehicle. For signalized intersections and roundabouts, a composite intersection level of service is determined. The thresholds for each level of service are higher for signalized intersections and roundabouts than for unsignalized intersections. This is attributable to a variety of factors including expectation and acceptance of higher delays at signals/roundabouts, and the fact that drivers can relax when waiting at a signal as opposed to having to remain attentive as they proceed through the unsignalized intersection. The level of service criteria for signalized intersections and roundabouts are shown in Table A.

Table A – Level of Service Criteria for Signalized Intersections and Roundabouts

Control Delay (s/veh)	LOS
≤ 10	A
> 10 and ≤ 20	B
> 20 and ≤ 35	C
> 35 and ≤ 55	D
> 55 and ≤ 80	E
> 80	F

Source: Highway Capacity Manual 6

Unsignalized Intersections – Level of service for an unsignalized intersection is defined in terms of control delay per vehicle. Control delay is that portion of delay attributable to the control device and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The delays at unsignalized intersections are based on gap acceptance theory, factoring in availability of gaps, usefulness of the gaps, and the priority of right-of-way given to each traffic stream. The level of service criteria for unsignalized intersections are presented in Table B.

Table B – Level of Service Criteria for Unsignalized Intersections

Control Delay (s/veh)	LOS
0 – 10	A
> 10 and ≤ 15	B
> 15 and ≤ 25	C
> 25 and ≤ 35	D
> 35 and ≤ 50	E
> 50	F

Source: Highway Capacity Manual 6

Appendix C

Existing Intersection Operational Analysis

Parkside Mixed-Use Development
1: Sandy Springs Circle & Hammond Drive

existing a.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	372	47	44	272	56	32	104	38	74	171	62
Future Volume (veh/h)	60	372	47	44	272	56	32	104	38	74	171	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1864	1864	1864	1949	1949	1949
Adj Flow Rate, veh/h	71	443	56	52	320	66	38	122	45	87	201	73
Peak Hour Factor	0.84	0.84	0.84	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	677	88	205	798	162	725	787	290	585	1379	1001
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	254	2495	325	899	2941	599	1102	1299	479	836	2275	1651
Grp Volume(v), veh/h	287	0	283	52	192	194	38	0	167	143	145	73
Grp Sat Flow(s),veh/h/ln	1430	0	1644	899	1777	1763	1102	0	1778	1426	1685	1651
Q Serve(g_s), s	7.3	0.0	11.1	4.0	6.5	6.6	1.1	0.0	3.0	1.6	2.7	1.3
Cycle Q Clear(g_c), s	14.0	0.0	11.1	15.1	6.5	6.6	3.9	0.0	3.0	4.6	2.7	1.3
Prop In Lane	0.25		0.20	1.00		0.34	1.00		0.27	0.61		1.00
Lane Grp Cap(c), veh/h	449	0	446	205	482	478	725	0	1078	943	1021	1001
V/C Ratio(X)	0.64	0.00	0.64	0.25	0.40	0.41	0.05	0.00	0.15	0.15	0.14	0.07
Avail Cap(c_a), veh/h	1424	0	1489	776	1609	1596	725	0	1078	943	1021	1001
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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	0.0	23.6	30.2	21.8	21.9	7.1	0.0	6.3	6.5	6.2	6.0
Incr Delay (d2), s/veh	1.5	0.0	1.5	0.6	0.5	0.6	0.1	0.0	0.3	0.3	0.3	0.1
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	4.5	0.0	4.2	0.9	2.6	2.6	0.3	0.0	1.0	0.9	0.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	0.0	25.1	30.9	22.4	22.5	7.2	0.0	6.6	6.9	6.5	6.1
LnGrp LOS	C	A	C	C	C	C	A	A	A	A	A	A
Approach Vol, veh/h		570			438			205			361	
Approach Delay, s/veh		25.5			23.4			6.7			6.6	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		49.0		24.4		49.0		24.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		44.5		66.5		44.5		66.5				
Max Q Clear Time (g_c+I1), s		5.9		16.0		6.6		17.1				
Green Ext Time (p_c), s		1.1		4.0		2.0		2.7				
Intersection Summary												
HCM 6th Ctrl Delay			18.1									
HCM 6th LOS			B									

Parkside Mixed-Use Development

3: Hammond Exchange East Access/Kroger Access & Hammond Drive

existing a.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	434	36	17	230	125	8	6	12	57	5	17
Future Volume (veh/h)	15	434	36	17	230	125	8	6	12	57	5	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	505	42	19	253	137	11	8	17	84	7	25
Peak Hour Factor	0.86	0.86	0.86	0.91	0.91	0.91	0.71	0.71	0.71	0.68	0.68	0.68
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	267	877	73	251	559	249	318	245	423	866	67	894
Arrive On Green	0.02	0.26	0.26	0.16	0.16	0.16	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1781	3322	276	860	3554	1585	405	434	751	1302	119	1585
Grp Volume(v), veh/h	17	269	278	19	253	137	36	0	0	91	0	25
Grp Sat Flow(s),veh/h/ln	1781	1777	1821	860	1777	1585	1590	0	0	1421	0	1585
Q Serve(g_s), s	0.4	6.9	6.9	1.0	3.4	4.2	0.0	0.0	0.0	0.9	0.0	0.4
Cycle Q Clear(g_c), s	0.4	6.9	6.9	2.4	3.4	4.2	0.5	0.0	0.0	1.4	0.0	0.4
Prop In Lane	1.00		0.15	1.00		1.00	0.31		0.47	0.92		1.00
Lane Grp Cap(c), veh/h	267	469	481	251	559	249	986	0	0	933	0	894
V/C Ratio(X)	0.06	0.57	0.58	0.08	0.45	0.55	0.04	0.00	0.00	0.10	0.00	0.03
Avail Cap(c_a), veh/h	553	1409	1444	568	1868	833	986	0	0	933	0	894
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	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.5	16.7	16.7	20.2	20.0	20.3	5.1	0.0	0.0	5.3	0.0	5.1
Incr Delay (d2), s/veh	0.1	1.1	1.1	0.1	0.6	1.9	0.1	0.0	0.0	0.2	0.0	0.1
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	0.1	2.5	2.6	0.2	1.3	1.5	0.2	0.0	0.0	0.4	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	17.8	17.8	20.3	20.6	22.2	5.2	0.0	0.0	5.5	0.0	5.1
LnGrp LOS	B	B	B	C	C	C	A	A	A	A	A	A
Approach Vol, veh/h		564			409			36			116	
Approach Delay, s/veh		17.8			21.1			5.2			5.4	
Approach LOS		B			C			A			A	
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		34.0		18.3		34.0	5.6	12.7				
Change Period (Y+Rc), s		4.5		4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.5		41.5		29.5	9.5	27.5				
Max Q Clear Time (g_c+I1), s		2.5		8.9		3.4	2.4	6.2				
Green Ext Time (p_c), s		0.1		3.4		0.6	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay				17.3								
HCM 6th LOS				B								

Parkside Mixed-Use Development
4: Roswell Road & Hammond Drive

existing a.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	330	131	191	221	74	176	1055	110	126	1042	65
Future Volume (veh/h)	59	330	131	191	221	74	176	1055	110	126	1042	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	393	156	201	233	78	183	1099	115	133	1097	68
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	349	434	368	241	759	247	282	1652	173	252	1679	104
Arrive On Green	0.04	0.23	0.23	0.10	0.29	0.29	0.06	0.51	0.51	0.05	0.49	0.49
Sat Flow, veh/h	1781	1870	1585	1781	2634	859	1781	3247	339	1781	3399	211
Grp Volume(v), veh/h	70	393	156	201	155	156	183	601	613	133	573	592
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1716	1781	1777	1809	1781	1777	1832
Q Serve(g_s), s	4.8	32.7	13.4	13.4	10.9	11.4	8.1	40.2	40.3	5.9	38.6	38.6
Cycle Q Clear(g_c), s	4.8	32.7	13.4	13.4	10.9	11.4	8.1	40.2	40.3	5.9	38.6	38.6
Prop In Lane	1.00		1.00	1.00		0.50	1.00		0.19	1.00		0.11
Lane Grp Cap(c), veh/h	349	434	368	241	512	494	282	904	921	252	878	905
V/C Ratio(X)	0.20	0.91	0.42	0.83	0.30	0.32	0.65	0.66	0.67	0.53	0.65	0.65
Avail Cap(c_a), veh/h	372	567	480	252	627	606	384	904	921	314	878	905
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)	0.80	0.80	0.80	1.00	1.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	59.7	52.3	43.7	44.4	44.6	24.9	29.2	29.2	24.3	30.2	30.3
Incr Delay (d2), s/veh	0.2	12.7	0.6	20.2	0.3	0.4	2.0	3.1	3.1	1.7	3.8	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	17.0	5.4	7.3	4.9	4.9	3.4	17.4	17.7	2.5	16.9	17.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.3	72.5	53.0	63.8	44.7	45.0	26.9	32.2	32.2	26.0	34.0	33.9
LnGrp LOS	D	E	D	E	D	D	C	C	C	C	C	C
Approach Vol, veh/h		619			512			1397			1298	
Approach Delay, s/veh		64.4			52.3			31.5			33.2	
Approach LOS		E			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.5	85.9	20.0	41.6	14.9	83.5	11.0	50.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	63.5	16.5	48.5	19.5	57.5	8.5	56.5				
Max Q Clear Time (g_c+l1), s	7.9	42.3	15.4	34.7	10.1	40.6	6.8	13.4				
Green Ext Time (p_c), s	0.1	7.8	0.1	2.4	0.3	6.6	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay			40.2									
HCM 6th LOS			D									

Parkside Mixed-Use Development
6: Roswell Road & Cliftwood Drive/Carpenter Drive

existing a.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	44	78	62	8	38	158	1219	20	48	1120	35
Future Volume (veh/h)	78	44	78	62	8	38	158	1219	20	48	1120	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1949	1949	1949	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	52	92	81	10	49	186	1434	24	52	1217	38
Peak Hour Factor	0.85	0.85	0.85	0.77	0.77	0.77	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	60	106	154	26	129	361	2569	43	283	2467	77
Arrive On Green	0.06	0.10	0.10	0.05	0.09	0.09	0.04	0.72	0.72	0.03	0.70	0.70
Sat Flow, veh/h	1781	606	1072	1856	287	1408	1781	3577	60	1781	3518	110
Grp Volume(v), veh/h	92	0	144	81	0	59	186	712	746	52	614	641
Grp Sat Flow(s),veh/h/ln	1781	0	1677	1856	0	1695	1781	1777	1860	1781	1777	1851
Q Serve(g_s), s	7.9	0.0	14.4	6.7	0.0	5.6	5.0	32.0	32.1	1.4	26.8	26.9
Cycle Q Clear(g_c), s	7.9	0.0	14.4	6.7	0.0	5.6	5.0	32.0	32.1	1.4	26.8	26.9
Prop In Lane	1.00		0.64	1.00		0.83	1.00		0.03	1.00		0.06
Lane Grp Cap(c), veh/h	224	0	166	154	0	155	361	1276	1336	283	1246	1298
V/C Ratio(X)	0.41	0.00	0.87	0.53	0.00	0.38	0.52	0.56	0.56	0.18	0.49	0.49
Avail Cap(c_a), veh/h	231	0	252	176	0	254	560	1276	1336	324	1246	1298
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)	0.99	0.00	0.99	1.00	0.00	1.00	1.00	1.00	1.00	0.63	0.63	0.63
Uniform Delay (d), s/veh	65.0	0.0	75.5	66.0	0.0	72.7	9.8	11.3	11.3	9.4	11.6	11.6
Incr Delay (d2), s/veh	1.2	0.0	17.8	2.8	0.0	1.5	1.1	1.8	1.7	0.2	0.9	0.8
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	3.7	0.0	7.0	3.3	0.0	2.5	1.8	12.2	12.8	0.5	10.2	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.2	0.0	93.3	68.8	0.0	74.2	11.0	13.0	13.0	9.6	12.5	12.4
LnGrp LOS	E	A	F	E	A	E	B	B	B	A	B	B
Approach Vol, veh/h		236			140			1644			1307	
Approach Delay, s/veh		82.7			71.1			12.8			12.3	
Approach LOS		F			E			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	126.6	13.0	21.3	12.0	123.7	14.3	20.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	107.5	10.5	25.5	26.5	89.5	10.5	25.5				
Max Q Clear Time (g_c+l1), s	3.4	34.1	8.7	16.4	7.0	28.9	9.9	7.6				
Green Ext Time (p_c), s	0.0	13.7	0.0	0.4	0.4	10.2	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			20.0									
HCM 6th LOS			C									

Parkside Mixed-Use Development
9: Sandy Springs Circle & Cliftwood Drive

existing a.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	36	3	41	51	80	0	87	27	102	146	11
Future Volume (veh/h)	3	36	3	41	51	80	0	87	27	102	146	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1949	1949	1949	1870	1870	1870	1909	1909	1909
Adj Flow Rate, veh/h	5	56	5	49	61	95	0	92	28	119	170	13
Peak Hour Factor	0.64	0.64	0.64	0.84	0.84	0.84	0.95	0.95	0.95	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	186	158	345	278	236	622	535	163	751	992	76
Arrive On Green	0.01	0.10	0.10	0.05	0.14	0.14	0.00	0.39	0.39	0.08	0.57	0.57
Sat Flow, veh/h	1781	1870	1585	1856	1949	1651	1781	1376	419	1818	1751	134
Grp Volume(v), veh/h	5	56	5	49	61	95	0	0	120	119	0	183
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1856	1949	1651	1781	0	1795	1818	0	1885
Q Serve(g_s), s	0.1	1.3	0.1	1.1	1.3	2.5	0.0	0.0	2.1	1.6	0.0	2.2
Cycle Q Clear(g_c), s	0.1	1.3	0.1	1.1	1.3	2.5	0.0	0.0	2.1	1.6	0.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23	1.00		0.07
Lane Grp Cap(c), veh/h	286	186	158	345	278	236	622	0	698	751	0	1068
V/C Ratio(X)	0.02	0.30	0.03	0.14	0.22	0.40	0.00	0.00	0.17	0.16	0.00	0.17
Avail Cap(c_a), veh/h	461	708	600	447	737	625	805	0	698	809	0	1068
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.1	19.9	19.4	17.7	18.0	18.5	0.0	0.0	9.5	6.2	0.0	4.9
Incr Delay (d2), s/veh	0.0	0.9	0.1	0.2	0.4	1.1	0.0	0.0	0.5	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	0.0	0.4	0.5	0.9	0.0	0.0	0.7	0.4	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.1	20.8	19.4	17.9	18.4	19.7	0.0	0.0	10.1	6.3	0.0	5.3
LnGrp LOS	B	C	B	B	B	B	A	A	B	A	A	A
Approach Vol, veh/h		66			205			120			302	
Approach Delay, s/veh		20.6			18.9			10.1			5.7	
Approach LOS		C			B			B			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	23.0	6.9	9.2	0.0	31.5	4.8	11.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	18.5	5.0	18.0	5.0	19.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.6	4.1	3.1	3.3	0.0	4.2	2.1	4.5				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.2	0.0	0.8	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			11.8									
HCM 6th LOS			B									

Parkside Mixed-Use Development
2: Hammond Exchange West Access & Hammond Drive

existing a.m.

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	467	11	5	327	8	8
Future Vol, veh/h	467	11	5	327	8	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	92	92	31	31
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	513	12	5	355	26	26
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	525	0	707	263
Stage 1	-	-	-	-	519	-
Stage 2	-	-	-	-	188	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1038	-	370	735
Stage 1	-	-	-	-	562	-
Stage 2	-	-	-	-	825	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1038	-	368	735
Mov Cap-2 Maneuver	-	-	-	-	368	-
Stage 1	-	-	-	-	562	-
Stage 2	-	-	-	-	821	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		13.2	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	490	-	-	1038	-	
HCM Lane V/C Ratio	0.105	-	-	0.005	-	
HCM Control Delay (s)	13.2	-	-	8.5	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.4	-	-	0	-	

Parkside Mixed-Use Development
5: Roswell Road & Parkside Access/Lowes Access

existing a.m.

Intersection												
Int Delay, s/veh	11.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕		↕	↕		↕	↕	↕
Traffic Vol, veh/h	3	0	21	21	0	5	17	1339	38	8	1128	23
Future Vol, veh/h	3	0	21	21	0	5	17	1339	38	8	1128	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	0	-	140
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	47	47	47	94	94	94	100	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	26	45	0	11	18	1424	40	8	1139	23
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1903	2655	570	2066	2658	732	1162	0	0	1464	0	0
Stage 1	1155	1155	-	1480	1480	-	-	-	-	-	-	-
Stage 2	748	1500	-	586	1178	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	42	23	465	~ 31	22	364	597	-	-	457	-	-
Stage 1	209	269	-	132	188	-	-	-	-	-	-	-
Stage 2	371	184	-	463	263	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	39	22	465	~ 28	21	364	597	-	-	457	-	-
Mov Cap-2 Maneuver	39	22	-	~ 28	21	-	-	-	-	-	-	-
Stage 1	203	264	-	128	182	-	-	-	-	-	-	-
Stage 2	349	178	-	429	258	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	24.9		\$ 564.1		0.1		0.1					
HCM LOS	C		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	597	-	-	39	465	34	457	-	-			
HCM Lane V/C Ratio	0.03	-	-	0.096	0.056	1.627	0.018	-	-			
HCM Control Delay (s)	11.2	-	-	106.9	13.2	\$ 564.1	13	-	-			
HCM Lane LOS	B	-	-	F	B	F	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.2	6.1	0.1	-	-			
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

Parkside Mixed-Use Development
7: Cliftwood Drive & Parkside East Access

existing a.m.

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	173	149	12	8	3
Future Vol, veh/h	12	173	149	12	8	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	-5	-	0	-
Peak Hour Factor	93	93	89	89	58	58
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	186	167	13	14	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	180	0	-	0	286	84
Stage 1	-	-	-	-	167	-
Stage 2	-	-	-	-	119	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1393	-	-	-	681	958
Stage 1	-	-	-	-	845	-
Stage 2	-	-	-	-	893	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1393	-	-	-	674	958
Mov Cap-2 Maneuver	-	-	-	-	674	-
Stage 1	-	-	-	-	837	-
Stage 2	-	-	-	-	893	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		10		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1393	-	-	-	733	
HCM Lane V/C Ratio	0.009	-	-	-	0.026	
HCM Control Delay (s)	7.6	0	-	-	10	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Parkside Mixed-Use Development
8: Cliftwood Drive & Parkside West Access

existing a.m.

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	179	170	2	5	5
Future Vol, veh/h	0	179	170	2	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	-5	-	0	-
Peak Hour Factor	93	93	89	89	38	38
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	192	191	2	13	13
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	193	0	-	0	287	96
Stage 1	-	-	-	-	191	-
Stage 2	-	-	-	-	96	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1378	-	-	-	680	942
Stage 1	-	-	-	-	822	-
Stage 2	-	-	-	-	917	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1378	-	-	-	680	942
Mov Cap-2 Maneuver	-	-	-	-	680	-
Stage 1	-	-	-	-	822	-
Stage 2	-	-	-	-	917	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		9.7		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1378	-	-	-	790	
HCM Lane V/C Ratio	-	-	-	-	0.033	
HCM Control Delay (s)	0	-	-	-	9.7	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Parkside Mixed-Use Development
10: Sandy Springs Circle & Parkside South Access

existing a.m.

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	5	171	0	5	245
Future Vol, veh/h	2	5	171	0	5	245
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	90	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	3	-	-	-3
Peak Hour Factor	33	33	92	92	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	15	186	0	6	288
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	342	93	0	0	186	0
Stage 1	186	-	-	-	-	-
Stage 2	156	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	628	946	-	-	1386	-
Stage 1	827	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	625	946	-	-	1386	-
Mov Cap-2 Maneuver	625	-	-	-	-	-
Stage 1	827	-	-	-	-	-
Stage 2	852	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.5	0		0.2		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	825	1386	-	
HCM Lane V/C Ratio	-	-	0.026	0.004	-	
HCM Control Delay (s)	-	-	9.5	7.6	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Parkside Mixed-Use Development
 11: Sandy Springs Circle & Parkside North Access

existing a.m.

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	6	158	3	14	263
Future Vol, veh/h	2	6	158	3	14	263
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	130	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	4	-	-	-4
Peak Hour Factor	42	42	84	84	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	14	188	4	17	325
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	385	94	0	0	192	0
Stage 1	188	-	-	-	-	-
Stage 2	197	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	591	944	-	-	1379	-
Stage 1	825	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	582	944	-	-	1379	-
Mov Cap-2 Maneuver	582	-	-	-	-	-
Stage 1	825	-	-	-	-	-
Stage 2	805	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.5	0		0.5		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	817	1379	-	
HCM Lane V/C Ratio	-	-	0.023	0.013	-	
HCM Control Delay (s)	-	-	9.5	7.6	0.1	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Parkside Mixed-Use Development
1: Sandy Springs Circle & Hammond Drive

existing p.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	362	38	107	525	132	50	234	63	96	155	95
Future Volume (veh/h)	87	362	38	107	525	132	50	234	63	96	155	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1864	1864	1864	1949	1949	1949
Adj Flow Rate, veh/h	104	431	45	122	597	150	57	266	72	105	170	104
Peak Hour Factor	0.84	0.84	0.84	0.88	0.88	0.88	0.88	0.88	0.88	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	758	87	292	1097	275	584	730	198	514	870	853
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	271	1945	224	918	2815	706	1102	1413	382	850	1685	1651
Grp Volume(v), veh/h	246	0	334	122	376	371	57	0	338	105	170	104
Grp Sat Flow(s),veh/h/ln	778	0	1662	918	1777	1743	1102	0	1796	850	1685	1651
Q Serve(g_s), s	15.2	0.0	14.7	11.2	15.7	15.8	2.8	0.0	10.7	6.1	5.2	3.1
Cycle Q Clear(g_c), s	31.0	0.0	14.7	25.9	15.7	15.8	8.0	0.0	10.7	16.9	5.2	3.1
Prop In Lane	0.42		0.13	1.00		0.40	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	356	0	647	292	692	679	584	0	927	514	870	853
V/C Ratio(X)	0.69	0.00	0.52	0.42	0.54	0.55	0.10	0.00	0.36	0.20	0.20	0.12
Avail Cap(c_a), veh/h	636	0	1066	523	1140	1119	584	0	927	514	870	853
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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	0.0	22.3	32.2	22.7	22.7	14.6	0.0	13.8	18.8	12.5	12.0
Incr Delay (d2), s/veh	2.4	0.0	0.6	1.0	0.7	0.7	0.3	0.0	1.1	0.9	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	5.6	2.5	6.4	6.3	0.7	0.0	4.4	1.6	2.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.3	0.0	23.0	33.2	23.3	23.4	14.9	0.0	14.9	19.7	13.0	12.2
LnGrp LOS	C	A	C	C	C	C	B	A	B	B	B	B
Approach Vol, veh/h		580			869			395			379	
Approach Delay, s/veh		26.9			24.7			14.9			14.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.0		41.8		54.0		41.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		49.5		61.5		49.5		61.5				
Max Q Clear Time (g_c+l1), s		12.7		33.0		18.9		27.9				
Green Ext Time (p_c), s		2.4		4.3		2.1		6.0				
Intersection Summary												
HCM 6th Ctrl Delay				21.8								
HCM 6th LOS				C								

Parkside Mixed-Use Development

3: Hammond Exchange East Access/Kroger Access & Hammond Drive

existing p.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	474	113	90	497	198	92	38	99	162	21	42
Future Volume (veh/h)	12	474	113	90	497	198	92	38	99	162	21	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	13	521	124	97	534	213	110	45	118	172	22	45
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.84	0.84	0.84	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	233	994	235	267	943	421	319	143	294	631	75	819
Arrive On Green	0.02	0.35	0.35	0.27	0.27	0.27	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1781	2850	675	785	3554	1585	471	277	569	1024	145	1585
Grp Volume(v), veh/h	13	324	321	97	534	213	273	0	0	194	0	45
Grp Sat Flow(s),veh/h/ln	1781	1777	1749	785	1777	1585	1317	0	0	1169	0	1585
Q Serve(g_s), s	0.3	9.7	9.8	7.5	8.7	7.6	4.7	0.0	0.0	0.0	0.0	0.9
Cycle Q Clear(g_c), s	0.3	9.7	9.8	11.7	8.7	7.6	12.5	0.0	0.0	7.8	0.0	0.9
Prop In Lane	1.00		0.39	1.00		1.00	0.40		0.43	0.89		1.00
Lane Grp Cap(c), veh/h	233	620	610	267	943	421	756	0	0	706	0	819
V/C Ratio(X)	0.06	0.52	0.53	0.36	0.57	0.51	0.36	0.00	0.00	0.27	0.00	0.05
Avail Cap(c_a), veh/h	351	971	956	370	1410	629	756	0	0	706	0	819
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	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.8	17.3	17.4	24.2	21.2	20.8	11.0	0.0	0.0	9.6	0.0	8.0
Incr Delay (d2), s/veh	0.1	0.7	0.7	0.8	0.5	0.9	1.3	0.0	0.0	1.0	0.0	0.1
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	0.1	3.7	3.6	1.4	3.4	2.7	2.8	0.0	0.0	1.7	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.9	18.0	18.1	25.1	21.8	21.8	12.3	0.0	0.0	10.6	0.0	8.2
LnGrp LOS	B	B	B	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		658			844			273			239	
Approach Delay, s/veh		18.0			22.1			12.3			10.1	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		39.0		27.8		39.0	5.6	22.2				
Change Period (Y+Rc), s		4.5		4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		34.5		36.5		34.5	5.5	26.5				
Max Q Clear Time (g_c+I1), s		14.5		11.8		9.8	2.3	13.7				
Green Ext Time (p_c), s		1.7		4.0		1.4	0.0	4.0				
Intersection Summary												
HCM 6th Ctrl Delay			18.0									
HCM 6th LOS			B									

Parkside Mixed-Use Development
4: Roswell Road & Hammond Drive

existing p.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	357	240	414	515	146	284	1324	83	162	976	90
Future Volume (veh/h)	159	357	240	414	515	146	284	1324	83	162	976	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	384	258	476	592	168	302	1409	88	176	1061	98
Peak Hour Factor	0.93	0.93	0.93	0.87	0.87	0.87	0.94	0.94	0.94	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	302	371	314	431	891	252	302	1351	84	179	1092	101
Arrive On Green	0.09	0.20	0.20	0.22	0.33	0.33	0.14	0.40	0.40	0.08	0.33	0.33
Sat Flow, veh/h	1781	1870	1585	1781	2734	774	1781	3398	212	1781	3289	304
Grp Volume(v), veh/h	171	384	258	476	384	376	302	735	762	176	573	586
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1731	1781	1777	1832	1781	1777	1816
Q Serve(g_s), s	12.1	31.7	24.9	34.7	29.8	29.9	22.5	63.6	63.6	11.7	50.9	51.0
Cycle Q Clear(g_c), s	12.1	31.7	24.9	34.7	29.8	29.9	22.5	63.6	63.6	11.7	50.9	51.0
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.12	1.00		0.17
Lane Grp Cap(c), veh/h	302	371	314	431	579	564	302	706	728	179	590	603
V/C Ratio(X)	0.57	1.04	0.82	1.10	0.66	0.67	1.00	1.04	1.05	0.99	0.97	0.97
Avail Cap(c_a), veh/h	338	371	314	431	579	564	302	706	728	179	590	603
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)	0.76	0.76	0.76	1.00	1.00	1.00	0.71	0.71	0.71	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	64.1	61.4	51.3	46.4	46.4	52.8	48.2	48.2	48.1	52.7	52.7
Incr Delay (d2), s/veh	1.3	50.4	12.5	74.5	2.8	3.0	43.6	39.6	41.1	62.9	30.7	30.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	20.2	11.1	26.3	13.6	13.4	15.8	35.0	36.3	8.2	27.1	27.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	114.6	73.9	125.7	49.2	49.4	96.4	87.8	89.3	111.0	83.4	83.2
LnGrp LOS	D	F	E	F	D	D	F	F	F	F	F	F
Approach Vol, veh/h		813			1236			1799			1335	
Approach Delay, s/veh		87.4			78.7			89.8			87.0	
Approach LOS		F			E			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.5	68.1	39.2	36.2	27.0	57.6	18.7	56.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.0	63.6	34.7	31.7	22.5	53.1	17.5	48.9				
Max Q Clear Time (g_c+I1), s	13.7	65.6	36.7	33.7	24.5	53.0	14.1	31.9				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.1	0.1	4.4				
Intersection Summary												
HCM 6th Ctrl Delay			86.1									
HCM 6th LOS			F									

Parkside Mixed-Use Development
6: Roswell Road & Cliftwood Drive/Carpenter Drive

existing p.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	38	128	119	33	53	167	1448	21	65	1460	39
Future Volume (veh/h)	111	38	128	119	33	53	167	1448	21	65	1460	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1949	1949	1949	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	132	45	152	157	43	70	174	1508	22	68	1521	41
Peak Hour Factor	0.84	0.84	0.84	0.76	0.76	0.76	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	49	166	215	94	153	243	2331	34	227	2228	60
Arrive On Green	0.08	0.13	0.13	0.08	0.14	0.14	0.05	0.65	0.65	0.03	0.63	0.63
Sat Flow, veh/h	1781	375	1267	1856	667	1086	1781	3586	52	1781	3535	95
Grp Volume(v), veh/h	132	0	197	157	0	113	174	747	783	68	763	799
Grp Sat Flow(s),veh/h/ln	1781	0	1642	1856	0	1753	1781	1777	1861	1781	1777	1853
Q Serve(g_s), s	10.8	0.0	20.1	12.3	0.0	10.1	5.8	43.1	43.2	2.3	47.3	47.6
Cycle Q Clear(g_c), s	10.8	0.0	20.1	12.3	0.0	10.1	5.8	43.1	43.2	2.3	47.3	47.6
Prop In Lane	1.00		0.77	1.00		0.62	1.00		0.03	1.00		0.05
Lane Grp Cap(c), veh/h	281	0	215	215	0	247	243	1155	1210	227	1120	1168
V/C Ratio(X)	0.47	0.00	0.92	0.73	0.00	0.46	0.71	0.65	0.65	0.30	0.68	0.68
Avail Cap(c_a), veh/h	283	0	227	249	0	289	383	1155	1210	277	1120	1168
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)	0.99	0.00	0.99	1.00	0.00	1.00	1.00	1.00	1.00	0.18	0.18	0.18
Uniform Delay (d), s/veh	58.1	0.0	72.9	58.4	0.0	67.1	24.1	18.0	18.0	16.2	20.4	20.4
Incr Delay (d2), s/veh	1.2	0.0	36.4	8.8	0.0	1.3	3.9	2.8	2.7	0.1	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	10.7	6.3	0.0	4.6	3.9	17.6	18.4	0.9	18.8	19.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	0.0	109.3	67.3	0.0	68.4	28.0	20.8	20.7	16.3	21.0	21.0
LnGrp LOS	E	A	F	E	A	E	C	C	C	B	C	C
Approach Vol, veh/h		329			270			1704			1630	
Approach Delay, s/veh		89.2			67.8			21.5			20.8	
Approach LOS		F			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	115.0	18.9	26.8	12.7	111.6	17.3	28.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.6	101.4	17.5	23.5	21.5	89.5	13.0	28.0				
Max Q Clear Time (g_c+l1), s	4.3	45.2	14.3	22.1	7.8	49.6	12.8	12.1				
Green Ext Time (p_c), s	0.0	14.8	0.1	0.1	0.4	14.2	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			30.0									
HCM 6th LOS			C									

Parkside Mixed-Use Development
9: Sandy Springs Circle & Cliftwood Drive

existing p.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	45	3	41	39	152	6	126	44	143	147	18
Future Volume (veh/h)	12	45	3	41	39	152	6	126	44	143	147	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1949	1949	1949	1870	1870	1870	1909	1909	1909
Adj Flow Rate, veh/h	14	54	4	44	41	162	7	147	51	162	167	20
Peak Hour Factor	0.83	0.83	0.83	0.94	0.94	0.94	0.86	0.86	0.86	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	314	213	181	356	278	235	618	504	175	679	772	92
Arrive On Green	0.02	0.11	0.11	0.05	0.14	0.14	0.01	0.38	0.38	0.09	0.46	0.46
Sat Flow, veh/h	1781	1870	1585	1856	1949	1651	1781	1327	460	1818	1673	200
Grp Volume(v), veh/h	14	54	4	44	41	162	7	0	198	162	0	187
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1856	1949	1651	1781	0	1787	1818	0	1873
Q Serve(g_s), s	0.3	1.3	0.1	1.0	0.9	4.5	0.1	0.0	3.8	2.4	0.0	2.9
Cycle Q Clear(g_c), s	0.3	1.3	0.1	1.0	0.9	4.5	0.1	0.0	3.8	2.4	0.0	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		0.11
Lane Grp Cap(c), veh/h	314	213	181	356	278	235	618	0	678	679	0	864
V/C Ratio(X)	0.04	0.25	0.02	0.12	0.15	0.69	0.01	0.00	0.29	0.24	0.00	0.22
Avail Cap(c_a), veh/h	465	691	585	461	719	610	784	0	678	718	0	864
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.5	19.7	19.2	17.6	18.3	19.9	9.1	0.0	10.6	7.0	0.0	7.9
Incr Delay (d2), s/veh	0.1	0.6	0.0	0.2	0.2	3.6	0.0	0.0	1.1	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.5	0.0	0.4	0.4	1.8	0.0	0.0	1.4	0.7	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.6	20.3	19.2	17.8	18.6	23.4	9.2	0.0	11.6	7.2	0.0	8.4
LnGrp LOS	B	C	B	B	B	C	A	A	B	A	A	A
Approach Vol, veh/h		72			247			205			349	
Approach Delay, s/veh		19.9			21.6			11.6			7.8	
Approach LOS		B			C			B			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	23.0	6.7	10.1	5.0	27.0	5.4	11.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	18.5	5.0	18.0	5.0	19.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.4	5.8	3.0	3.3	2.1	4.9	2.3	6.5				
Green Ext Time (p_c), s	0.0	0.8	0.0	0.2	0.0	0.8	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			13.6									
HCM 6th LOS			B									

Parkside Mixed-Use Development
2: Hammond Exchange West Access & Hammond Drive

existing p.m.

Intersection						
Int Delay, s/veh	3.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	572	53	20	645	77	36
Future Vol, veh/h	572	53	20	645	77	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	96	96	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	602	56	21	672	103	48
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	658	0	1008	329
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	378	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	926	-	237	667
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	663	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	926	-	232	667
Mov Cap-2 Maneuver	-	-	-	-	232	-
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	648	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		29.6	
HCM LOS					D	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	293	-	-	926	-	
HCM Lane V/C Ratio	0.514	-	-	0.022	-	
HCM Control Delay (s)	29.6	-	-	9	-	
HCM Lane LOS	D	-	-	A	-	
HCM 95th %tile Q(veh)	2.8	-	-	0.1	-	

Parkside Mixed-Use Development
5: Roswell Road & Parkside Access/Lowes Access

existing p.m.

Intersection												
Int Delay, s/veh	24.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕		↕	↕		↕	↕	↕
Traffic Vol, veh/h	30	0	66	18	0	6	41	1482	51	12	1463	69
Future Vol, veh/h	30	0	66	18	0	6	41	1482	51	12	1463	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	0	-	140
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	67	67	67	96	96	96	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	0	79	27	0	9	43	1544	53	13	1540	73
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2424	3249	770	2453	3296	799	1613	0	0	1597	0	0
Stage 1	1566	1566	-	1657	1657	-	-	-	-	-	-	-
Stage 2	858	1683	-	796	1639	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 17	9	343	~ 16	8	328	400	-	-	406	-	-
Stage 1	116	170	-	102	154	-	-	-	-	-	-	-
Stage 2	318	149	-	347	157	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 15	8	343	~ 11	7	328	400	-	-	406	-	-
Mov Cap-2 Maneuver	~ 15	8	-	~ 11	7	-	-	-	-	-	-	-
Stage 1	104	165	-	91	138	-	-	-	-	-	-	-
Stage 2	276	133	-	259	152	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, \$	372.3		\$ 1153.5		0.4		0.1					
HCM LOS	F		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	400	-	-	15	343	15	406	-	-			
HCM Lane V/C Ratio	0.107	-	-	2.381	0.229	2.388	0.031	-	-			
HCM Control Delay (s)	15.1	-	-	\$ 1150.4	18.5	\$ 1153.5	14.2	-	-			
HCM Lane LOS	C	-	-	F	C	F	B	-	-			
HCM 95th %tile Q(veh)	0.4	-	-	5.2	0.9	5.2	0.1	-	-			
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

Parkside Mixed-Use Development
7: Cliftwood Drive & Parkside East Access

existing p.m.

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↑	↑	
Traffic Vol, veh/h	18	204	207	42	42	26
Future Vol, veh/h	18	204	207	42	42	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	-5	-	0	-
Peak Hour Factor	88	88	92	92	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	232	225	46	60	37
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	271	0	-	0	381	113
Stage 1	-	-	-	-	225	-
Stage 2	-	-	-	-	156	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1289	-	-	-	594	918
Stage 1	-	-	-	-	791	-
Stage 2	-	-	-	-	856	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1289	-	-	-	583	918
Mov Cap-2 Maneuver	-	-	-	-	583	-
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	856	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		11.2		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1289	-	-	-	678	
HCM Lane V/C Ratio	0.016	-	-	-	0.143	
HCM Control Delay (s)	7.8	0.1	-	-	11.2	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.5	

Parkside Mixed-Use Development
8: Cliftwood Drive & Parkside West Access

existing p.m.

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	227	248	8	3	5
Future Vol, veh/h	5	227	248	8	3	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	-5	-	0	-
Peak Hour Factor	96	96	94	94	42	42
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	236	264	9	7	12
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	273	0	-	0	392	132
Stage 1	-	-	-	-	264	-
Stage 2	-	-	-	-	128	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1287	-	-	-	585	893
Stage 1	-	-	-	-	756	-
Stage 2	-	-	-	-	884	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1287	-	-	-	583	893
Mov Cap-2 Maneuver	-	-	-	-	583	-
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	884	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		10		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1287	-	-	-	745	
HCM Lane V/C Ratio	0.004	-	-	-	0.026	
HCM Control Delay (s)	7.8	0	-	-	10	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Parkside Mixed-Use Development
10: Sandy Springs Circle & Parkside South Access

existing p.m.

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	15	275	6	2	284
Future Vol, veh/h	6	15	275	6	2	284
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	90	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	3	-	-	-3
Peak Hour Factor	35	35	90	90	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	43	306	7	2	323
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	472	153	0	0	313	0
Stage 1	306	-	-	-	-	-
Stage 2	166	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	521	866	-	-	1244	-
Stage 1	720	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	520	866	-	-	1244	-
Mov Cap-2 Maneuver	520	-	-	-	-	-
Stage 1	720	-	-	-	-	-
Stage 2	844	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.4	0	0.1			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	728	1244	-	
HCM Lane V/C Ratio	-	-	0.082	0.002	-	
HCM Control Delay (s)	-	-	10.4	7.9	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0	-	

Parkside Mixed-Use Development
 11: Sandy Springs Circle & Parkside North Access

existing p.m.

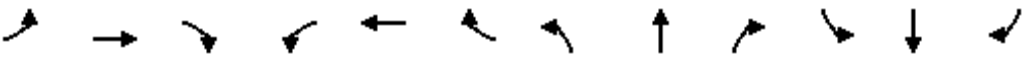
Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	45	273	6	39	290
Future Vol, veh/h	5	45	273	6	39	290
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	130	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	4	-	-	-4
Peak Hour Factor	83	83	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	54	317	7	45	337
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	576	159	0	0	324	0
Stage 1	317	-	-	-	-	-
Stage 2	259	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	448	858	-	-	1233	-
Stage 1	711	-	-	-	-	-
Stage 2	761	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	428	858	-	-	1233	-
Mov Cap-2 Maneuver	428	-	-	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10	0		1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	780	1233	-	
HCM Lane V/C Ratio	-	-	0.077	0.037	-	
HCM Control Delay (s)	-	-	10	8	0.1	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	

Appendix D

No-Build Intersection Operational Analysis

Parkside Mixed-Use Development
1: Sandy Springs Circle & Hammond Drive

no-build a.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↔	↔↔		↔	↔			↔↔	↔
Traffic Volume (veh/h)	63	391	49	46	285	58	33	109	39	77	180	65
Future Volume (veh/h)	63	391	49	46	285	58	33	109	39	77	180	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1864	1864	1864	1949	1949	1949
Adj Flow Rate, veh/h	75	465	58	54	335	68	39	128	46	91	212	76
Peak Hour Factor	0.84	0.84	0.84	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	707	91	209	840	169	698	776	279	569	1344	978
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.59	0.59	0.59	0.59	0.59	0.59
Sat Flow, veh/h	258	2482	319	879	2949	592	1088	1309	471	826	2269	1651
Grp Volume(v), veh/h	299	0	299	54	200	203	39	0	174	149	154	76
Grp Sat Flow(s),veh/h/ln	1414	0	1645	879	1777	1764	1088	0	1780	1410	1685	1651
Q Serve(g_s), s	7.9	0.0	11.7	4.2	6.7	6.8	1.2	0.0	3.2	1.9	3.0	1.4
Cycle Q Clear(g_c), s	14.7	0.0	11.7	15.8	6.7	6.8	4.2	0.0	3.2	5.1	3.0	1.4
Prop In Lane	0.25		0.19	1.00		0.34	1.00		0.26	0.61		1.00
Lane Grp Cap(c), veh/h	464	0	469	209	506	503	698	0	1055	915	998	978
V/C Ratio(X)	0.64	0.00	0.64	0.26	0.40	0.40	0.06	0.00	0.17	0.16	0.15	0.08
Avail Cap(c_a), veh/h	1432	0	1512	767	1634	1622	698	0	1055	915	998	978
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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	22.9	29.9	21.2	21.2	7.7	0.0	6.8	7.1	6.7	6.4
Incr Delay (d2), s/veh	1.5	0.0	1.4	0.6	0.5	0.5	0.2	0.0	0.3	0.4	0.3	0.2
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	4.6	0.0	4.4	0.9	2.7	2.7	0.3	0.0	1.1	1.0	1.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	0.0	24.4	30.5	21.7	21.7	7.8	0.0	7.1	7.5	7.0	6.5
LnGrp LOS	C	A	C	C	C	C	A	A	A	A	A	A
Approach Vol, veh/h		598			457			213			379	
Approach Delay, s/veh		24.9			22.7			7.2			7.1	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		48.0		25.4		48.0		25.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		43.5		67.5		43.5		67.5				
Max Q Clear Time (g_c+l1), s		6.2		16.7		7.1		17.8				
Green Ext Time (p_c), s		1.2		4.2		2.1		2.9				
Intersection Summary												
HCM 6th Ctrl Delay			17.9									
HCM 6th LOS			B									

Parkside Mixed-Use Development

3: Hammond Exchange East Access/Kroger Access & Hammond Drive

no-build a.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	456	38	17	336	131	8	6	13	60	5	17
Future Volume (veh/h)	16	456	38	17	336	131	8	6	13	60	5	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	530	44	19	369	144	11	8	18	88	7	25
Peak Hour Factor	0.86	0.86	0.86	0.91	0.91	0.91	0.71	0.71	0.71	0.68	0.68	0.68
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	253	964	80	263	655	292	299	231	421	838	62	862
Arrive On Green	0.02	0.29	0.29	0.18	0.18	0.18	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1781	3322	275	839	3554	1585	391	425	774	1305	114	1585
Grp Volume(v), veh/h	19	283	291	19	369	144	37	0	0	95	0	25
Grp Sat Flow(s),veh/h/ln	1781	1777	1821	839	1777	1585	1591	0	0	1419	0	1585
Q Serve(g_s), s	0.4	7.3	7.3	1.1	5.1	4.4	0.0	0.0	0.0	1.1	0.0	0.4
Cycle Q Clear(g_c), s	0.4	7.3	7.3	2.6	5.1	4.4	0.5	0.0	0.0	1.6	0.0	0.4
Prop In Lane	1.00		0.15	1.00		1.00	0.30		0.49	0.93		1.00
Lane Grp Cap(c), veh/h	253	516	529	263	655	292	951	0	0	900	0	862
V/C Ratio(X)	0.07	0.55	0.55	0.07	0.56	0.49	0.04	0.00	0.00	0.11	0.00	0.03
Avail Cap(c_a), veh/h	492	1359	1393	549	1867	833	951	0	0	900	0	862
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	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.1	16.2	16.3	19.8	20.1	19.8	5.8	0.0	0.0	6.0	0.0	5.7
Incr Delay (d2), s/veh	0.1	0.9	0.9	0.1	0.8	1.3	0.1	0.0	0.0	0.2	0.0	0.1
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	0.2	2.7	2.8	0.2	2.0	1.6	0.2	0.0	0.0	0.5	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.3	17.2	17.2	19.9	20.9	21.1	5.8	0.0	0.0	6.2	0.0	5.8
LnGrp LOS	B	B	B	B	C	C	A	A	A	A	A	A
Approach Vol, veh/h		593			532			37			120	
Approach Delay, s/veh		17.1			20.9			5.8			6.1	
Approach LOS		B			C			A			A	
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		34.0		20.2		34.0	5.7	14.5				
Change Period (Y+Rc), s		4.5		4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.5		41.5		29.5	8.5	28.5				
Max Q Clear Time (g_c+l1), s		2.5		9.3		3.6	2.4	7.1				
Green Ext Time (p_c), s		0.1		3.6		0.6	0.0	2.9				
Intersection Summary												
HCM 6th Ctrl Delay				17.4								
HCM 6th LOS				B								

Parkside Mixed-Use Development
4: Roswell Road & Hammond Drive

no-build a.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	347	137	200	232	77	184	1109	115	120	991	61
Future Volume (veh/h)	61	347	137	200	232	77	184	1109	115	120	991	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	413	163	211	244	81	192	1155	120	126	1043	64
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	358	453	384	245	792	257	293	1613	167	227	1622	99
Arrive On Green	0.04	0.24	0.24	0.10	0.30	0.30	0.07	0.50	0.50	0.05	0.48	0.48
Sat Flow, veh/h	1781	1870	1585	1781	2639	855	1781	3250	337	1781	3401	209
Grp Volume(v), veh/h	73	413	163	211	162	163	192	631	644	126	545	562
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1717	1781	1777	1810	1781	1777	1833
Q Serve(g_s), s	4.9	34.4	13.9	13.9	11.3	11.7	8.7	44.3	44.5	5.8	37.0	37.0
Cycle Q Clear(g_c), s	4.9	34.4	13.9	13.9	11.3	11.7	8.7	44.3	44.5	5.8	37.0	37.0
Prop In Lane	1.00		1.00	1.00		0.50	1.00		0.19	1.00		0.11
Lane Grp Cap(c), veh/h	358	453	384	245	534	515	293	882	898	227	847	874
V/C Ratio(X)	0.20	0.91	0.42	0.86	0.30	0.32	0.66	0.71	0.72	0.55	0.64	0.64
Avail Cap(c_a), veh/h	379	567	480	252	627	606	387	882	898	290	847	874
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)	0.80	0.80	0.80	1.00	1.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	58.9	51.2	42.8	43.1	43.3	25.3	31.4	31.5	26.9	31.6	31.6
Incr Delay (d2), s/veh	0.2	13.9	0.6	24.3	0.3	0.3	1.9	3.8	3.8	2.1	3.7	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	18.0	5.6	7.8	5.0	5.1	3.7	19.3	19.8	2.5	16.3	16.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	72.8	51.8	67.1	43.4	43.6	27.2	35.3	35.3	29.0	35.3	35.2
LnGrp LOS	D	E	D	E	D	D	C	D	D	C	D	D
Approach Vol, veh/h		649			536			1467			1233	
Approach Delay, s/veh		64.2			52.8			34.2			34.6	
Approach LOS		E			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	83.9	20.4	43.3	15.5	80.8	11.1	52.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	63.5	16.5	48.5	19.5	57.5	8.5	56.5				
Max Q Clear Time (g_c+I1), s	7.8	46.5	15.9	36.4	10.7	39.0	6.9	13.7				
Green Ext Time (p_c), s	0.1	7.4	0.0	2.4	0.3	6.5	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay			41.9									
HCM 6th LOS			D									

Parkside Mixed-Use Development
6: Roswell Road & Cliftwood Drive/Carpenter Drive

no-build a.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	46	82	65	8	39	166	1281	19	50	1177	36
Future Volume (veh/h)	82	46	82	65	8	39	166	1281	19	50	1177	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1949	1949	1949	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	54	96	84	10	51	195	1507	22	54	1279	39
Peak Hour Factor	0.85	0.85	0.85	0.77	0.77	0.77	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	230	62	110	156	26	134	341	2557	37	262	2444	74
Arrive On Green	0.06	0.10	0.10	0.05	0.09	0.09	0.05	0.71	0.71	0.03	0.69	0.69
Sat Flow, veh/h	1781	604	1073	1856	278	1416	1781	3585	52	1781	3521	107
Grp Volume(v), veh/h	96	0	150	84	0	61	195	746	783	54	645	673
Grp Sat Flow(s),veh/h/ln	1781	0	1677	1856	0	1694	1781	1777	1861	1781	1777	1851
Q Serve(g_s), s	8.2	0.0	15.0	6.9	0.0	5.8	5.3	35.3	35.4	1.5	29.6	29.7
Cycle Q Clear(g_c), s	8.2	0.0	15.0	6.9	0.0	5.8	5.3	35.3	35.4	1.5	29.6	29.7
Prop In Lane	1.00		0.64	1.00		0.84	1.00		0.03	1.00		0.06
Lane Grp Cap(c), veh/h	230	0	172	156	0	160	341	1267	1327	262	1234	1285
V/C Ratio(X)	0.42	0.00	0.87	0.54	0.00	0.38	0.57	0.59	0.59	0.21	0.52	0.52
Avail Cap(c_a), veh/h	234	0	252	176	0	254	547	1267	1327	293	1234	1285
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)	0.99	0.00	0.99	1.00	0.00	1.00	1.00	1.00	1.00	0.64	0.64	0.64
Uniform Delay (d), s/veh	64.4	0.0	75.2	65.5	0.0	72.3	11.3	12.1	12.1	10.4	12.5	12.5
Incr Delay (d2), s/veh	1.2	0.0	19.4	2.9	0.0	1.5	1.5	2.0	1.9	0.2	1.0	1.0
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	3.8	0.0	7.4	3.4	0.0	2.6	2.0	13.5	14.2	0.5	11.4	11.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.6	0.0	94.6	68.4	0.0	73.8	12.9	14.1	14.0	10.7	13.5	13.5
LnGrp LOS	E	A	F	E	A	E	B	B	B	B	B	B
Approach Vol, veh/h		246			145			1724			1372	
Approach Delay, s/veh		83.3			70.6			13.9			13.4	
Approach LOS		F			E			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	125.7	13.2	21.9	12.3	122.5	14.6	20.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	108.5	10.5	25.5	27.5	88.5	10.5	25.5				
Max Q Clear Time (g_c+l1), s	3.5	37.4	8.9	17.0	7.3	31.7	10.2	7.8				
Green Ext Time (p_c), s	0.0	15.2	0.0	0.4	0.5	11.1	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			21.0									
HCM 6th LOS			C									

Parkside Mixed-Use Development
9: Sandy Springs Circle & Cliftwood Drive

no-build a.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	38	3	43	54	84	0	91	28	107	153	11
Future Volume (veh/h)	3	38	3	43	54	84	0	91	28	107	153	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1949	1949	1949	1870	1870	1870	1909	1909	1909
Adj Flow Rate, veh/h	5	59	5	51	64	100	0	96	29	124	178	13
Peak Hour Factor	0.64	0.64	0.64	0.84	0.84	0.84	0.95	0.95	0.95	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	285	187	158	345	282	239	616	534	161	746	995	73
Arrive On Green	0.01	0.10	0.10	0.05	0.14	0.14	0.00	0.39	0.39	0.08	0.57	0.57
Sat Flow, veh/h	1781	1870	1585	1856	1949	1651	1781	1379	417	1818	1758	128
Grp Volume(v), veh/h	5	59	5	51	64	100	0	0	125	124	0	191
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1856	1949	1651	1781	0	1795	1818	0	1886
Q Serve(g_s), s	0.1	1.4	0.1	1.1	1.4	2.6	0.0	0.0	2.2	1.7	0.0	2.3
Cycle Q Clear(g_c), s	0.1	1.4	0.1	1.1	1.4	2.6	0.0	0.0	2.2	1.7	0.0	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23	1.00		0.07
Lane Grp Cap(c), veh/h	285	187	158	345	282	239	616	0	695	746	0	1068
V/C Ratio(X)	0.02	0.32	0.03	0.15	0.23	0.42	0.00	0.00	0.18	0.17	0.00	0.18
Avail Cap(c_a), veh/h	459	705	597	443	734	622	799	0	695	801	0	1068
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.1	20.0	19.4	17.7	18.1	18.6	0.0	0.0	9.6	6.3	0.0	5.0
Incr Delay (d2), s/veh	0.0	1.0	0.1	0.2	0.4	1.2	0.0	0.0	0.6	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	0.0	0.4	0.6	1.0	0.0	0.0	0.8	0.5	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.1	20.9	19.5	17.9	18.5	19.8	0.0	0.0	10.2	6.4	0.0	5.4
LnGrp LOS	B	C	B	B	B	B	A	A	B	A	A	A
Approach Vol, veh/h	69			215				125			315	
Approach Delay, s/veh	20.7			18.9				10.2			5.8	
Approach LOS	C			B				B			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	23.0	7.0	9.3	0.0	31.5	4.8	11.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	18.5	5.0	18.0	5.0	19.0	5.0	18.0				
Max Q Clear Time (g_c+1), s	3.7	4.2	3.1	3.4	0.0	4.3	2.1	4.6				
Green Ext Time (p_c), s	0.0	0.5	0.0	0.2	0.0	0.8	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay	11.9											
HCM 6th LOS	B											

Parkside Mixed-Use Development
2: Hammond Exchange West Access & Hammond Drive

no-build a.m.

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	490	11	5	344	8	8
Future Vol, veh/h	490	11	5	344	8	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	92	92	31	31
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	538	12	5	374	26	26
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	550	0	741	275
Stage 1	-	-	-	-	544	-
Stage 2	-	-	-	-	197	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1016	-	352	722
Stage 1	-	-	-	-	546	-
Stage 2	-	-	-	-	817	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1016	-	350	722
Mov Cap-2 Maneuver	-	-	-	-	350	-
Stage 1	-	-	-	-	546	-
Stage 2	-	-	-	-	813	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.1		13.6		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	471	-	-	1016	-	
HCM Lane V/C Ratio	0.11	-	-	0.005	-	
HCM Control Delay (s)	13.6	-	-	8.6	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.4	-	-	0	-	

Parkside Mixed-Use Development
5: Roswell Road & Parkside Access/Lowes Access

no-build a.m.

Intersection												
Int Delay, s/veh	16.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕		↕	↕		↕	↕	↕
Traffic Vol, veh/h	3	0	22	22	0	5	17	1407	39	8	1186	24
Future Vol, veh/h	3	0	22	22	0	5	17	1407	39	8	1186	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	0	-	140
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	47	47	47	94	94	94	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	28	47	0	11	18	1497	41	8	1198	24
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1999	2788	599	2169	2792	769	1222	0	0	1538	0	0
Stage 1	1214	1214	-	1554	1554	-	-	-	-	-	-	-
Stage 2	785	1574	-	615	1238	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	35	18	445	~ 26	18	344	566	-	-	428	-	-
Stage 1	193	253	-	118	173	-	-	-	-	-	-	-
Stage 2	352	169	-	445	246	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	33	17	445	~ 23	17	344	566	-	-	428	-	-
Mov Cap-2 Maneuver	33	17	-	~ 23	17	-	-	-	-	-	-	-
Stage 1	187	248	-	114	167	-	-	-	-	-	-	-
Stage 2	330	164	-	410	241	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	27.3		\$ 788.2		0.1		0.1					
HCM LOS	D		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	566	-	-	33	445	28	428	-	-			
HCM Lane V/C Ratio	0.032	-	-	0.114	0.062	2.052	0.019	-	-			
HCM Control Delay (s)	11.6	-	-	127.6	13.6	\$ 788.2	13.6	-	-			
HCM Lane LOS	B	-	-	F	B	F	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.2	6.8	0.1	-	-			
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

Parkside Mixed-Use Development
7: Cliftwood Drive & Parkside East Access

no-build a.m.

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	181	156	13	8	3
Future Vol, veh/h	13	181	156	13	8	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	-5	-	0	-
Peak Hour Factor	93	93	89	89	58	58
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	195	175	15	14	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	190	0	-	0	301	88
Stage 1	-	-	-	-	175	-
Stage 2	-	-	-	-	126	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1381	-	-	-	666	953
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	886	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1381	-	-	-	659	953
Mov Cap-2 Maneuver	-	-	-	-	659	-
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	886	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		10.1		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1381	-	-	-	720	
HCM Lane V/C Ratio	0.01	-	-	-	0.026	
HCM Control Delay (s)	7.6	0	-	-	10.1	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Parkside Mixed-Use Development
8: Cliftwood Drive & Parkside West Access

no-build a.m.

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	188	178	2	5	5
Future Vol, veh/h	0	188	178	2	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	-5	-	0	-
Peak Hour Factor	93	93	89	89	38	38
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	202	200	2	13	13
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	202	0	-	0	301	100
Stage 1	-	-	-	-	200	-
Stage 2	-	-	-	-	101	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1367	-	-	-	666	936
Stage 1	-	-	-	-	814	-
Stage 2	-	-	-	-	912	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1367	-	-	-	666	936
Mov Cap-2 Maneuver	-	-	-	-	666	-
Stage 1	-	-	-	-	814	-
Stage 2	-	-	-	-	912	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		9.8		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1367	-	-	-	778	
HCM Lane V/C Ratio	-	-	-	-	0.034	
HCM Control Delay (s)	0	-	-	-	9.8	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Parkside Mixed-Use Development
10: Sandy Springs Circle & Parkside South Access

no-build a.m.

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	5	180	0	5	257
Future Vol, veh/h	2	5	180	0	5	257
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	90	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	3	-	-	-3
Peak Hour Factor	33	33	92	92	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	15	196	0	6	302
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	359	98	0	0	196	0
Stage 1	196	-	-	-	-	-
Stage 2	163	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	613	939	-	-	1374	-
Stage 1	818	-	-	-	-	-
Stage 2	849	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	610	939	-	-	1374	-
Mov Cap-2 Maneuver	610	-	-	-	-	-
Stage 1	818	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.5	0		0.1		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	814	1374	-	
HCM Lane V/C Ratio	-	-	0.026	0.004	-	
HCM Control Delay (s)	-	-	9.5	7.6	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Parkside Mixed-Use Development
11: Sandy Springs Circle & Parkside North Access

no-build a.m.

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	6	166	3	14	276
Future Vol, veh/h	2	6	166	3	14	276
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	130	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	4	-	-	-4
Peak Hour Factor	42	42	84	84	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	14	198	4	17	341
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	403	99	0	0	202	0
Stage 1	198	-	-	-	-	-
Stage 2	205	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	575	937	-	-	1367	-
Stage 1	816	-	-	-	-	-
Stage 2	809	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	566	937	-	-	1367	-
Mov Cap-2 Maneuver	566	-	-	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	797	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.6	0		0.5		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	805	1367	-	
HCM Lane V/C Ratio	-	-	0.024	0.013	-	
HCM Control Delay (s)	-	-	9.6	7.7	0.1	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Parkside Mixed-Use Development
1: Sandy Springs Circle & Hammond Drive

no-build p.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	380	39	112	552	139	52	246	66	101	162	99
Future Volume (veh/h)	91	380	39	112	552	139	52	246	66	101	162	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1864	1864	1864	1949	1949	1949
Adj Flow Rate, veh/h	108	452	46	127	627	158	59	280	75	111	178	109
Peak Hour Factor	0.84	0.84	0.84	0.88	0.88	0.88	0.88	0.88	0.88	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	787	88	296	1146	288	554	710	190	477	844	828
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	269	1931	217	900	2812	708	1089	1417	379	807	1685	1651
Grp Volume(v), veh/h	253	0	353	127	396	389	59	0	355	111	178	109
Grp Sat Flow(s),veh/h/ln	753	0	1663	900	1777	1743	1089	0	1796	807	1685	1651
Q Serve(g_s), s	17.0	0.0	15.8	12.2	16.8	16.8	3.2	0.0	12.1	7.1	5.8	3.5
Cycle Q Clear(g_c), s	33.8	0.0	15.8	28.0	16.8	16.8	9.0	0.0	12.1	19.2	5.8	3.5
Prop In Lane	0.43		0.13	1.00		0.41	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	359	0	678	296	724	711	554	0	900	477	844	828
V/C Ratio(X)	0.70	0.00	0.52	0.43	0.55	0.55	0.11	0.00	0.39	0.23	0.21	0.13
Avail Cap(c_a), veh/h	591	0	1036	489	1106	1085	554	0	900	477	844	828
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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	0.0	22.0	32.5	22.3	22.3	16.2	0.0	15.3	21.3	13.7	13.2
Incr Delay (d2), s/veh	2.5	0.0	0.6	1.0	0.6	0.7	0.4	0.0	1.3	1.1	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	6.0	2.7	6.8	6.7	0.8	0.0	5.0	1.9	2.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	0.0	22.6	33.5	22.9	23.0	16.6	0.0	16.6	22.4	14.3	13.5
LnGrp LOS	C	A	C	C	C	C	B	A	B	C	B	B
Approach Vol, veh/h		606			912			414			398	
Approach Delay, s/veh		26.9			24.4			16.6			16.3	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.0		44.8		54.0		44.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		49.5		61.5		49.5		61.5				
Max Q Clear Time (g_c+l1), s		14.1		35.8		21.2		30.0				
Green Ext Time (p_c), s		2.6		4.5		2.2		6.3				
Intersection Summary												
HCM 6th Ctrl Delay				22.3								
HCM 6th LOS				C								

Parkside Mixed-Use Development

3: Hammond Exchange East Access/Kroger Access & Hammond Drive

no-build p.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	498	118	95	522	208	96	39	104	170	22	44
Future Volume (veh/h)	13	498	118	95	522	208	96	39	104	170	22	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	547	130	102	561	224	114	46	124	181	23	47
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.84	0.84	0.84	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	1032	244	266	992	442	296	132	275	594	70	802
Arrive On Green	0.02	0.36	0.36	0.28	0.28	0.28	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1781	2851	675	762	3554	1585	440	262	544	977	138	1585
Grp Volume(v), veh/h	14	340	337	102	561	224	284	0	0	204	0	47
Grp Sat Flow(s),veh/h/ln	1781	1777	1749	762	1777	1585	1245	0	0	1115	0	1585
Q Serve(g_s), s	0.4	10.3	10.4	8.3	9.2	8.1	5.8	0.0	0.0	0.0	0.0	1.0
Cycle Q Clear(g_c), s	0.4	10.3	10.4	13.0	9.2	8.1	15.2	0.0	0.0	9.4	0.0	1.0
Prop In Lane	1.00		0.39	1.00		1.00	0.40		0.44	0.89		1.00
Lane Grp Cap(c), veh/h	235	643	633	266	992	442	704	0	0	663	0	802
V/C Ratio(X)	0.06	0.53	0.53	0.38	0.57	0.51	0.40	0.00	0.00	0.31	0.00	0.06
Avail Cap(c_a), veh/h	348	951	936	349	1381	616	704	0	0	663	0	802
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	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.6	17.2	17.2	24.6	21.0	20.6	12.6	0.0	0.0	10.6	0.0	8.6
Incr Delay (d2), s/veh	0.1	0.7	0.7	0.9	0.5	0.9	1.7	0.0	0.0	1.2	0.0	0.1
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	0.1	3.9	3.9	1.5	3.6	2.9	3.3	0.0	0.0	2.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.7	17.8	17.9	25.5	21.6	21.5	14.3	0.0	0.0	11.8	0.0	8.7
LnGrp LOS	B	B	B	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h	691			887			284			251		
Approach Delay, s/veh	17.8			22.0			14.3			11.2		
Approach LOS	B			C			B			B		
Timer - Assigned Phs	2			4			6			7		
Phs Duration (G+Y+Rc), s	39.0			29.2			39.0			5.7		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	34.5			36.5			34.5			5.5		
Max Q Clear Time (g_c+l1), s	17.2			12.4			11.4			2.4		
Green Ext Time (p_c), s	1.7			4.3			1.5			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	18.3											
HCM 6th LOS	B											

Parkside Mixed-Use Development
4: Roswell Road & Hammond Drive

no-build p.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	375	252	435	541	153	298	1391	87	170	1025	95
Future Volume (veh/h)	167	375	252	435	541	153	298	1391	87	170	1025	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	403	271	500	622	176	317	1480	93	185	1114	103
Peak Hour Factor	0.93	0.93	0.93	0.87	0.87	0.87	0.94	0.94	0.94	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	368	312	429	876	247	285	1369	86	173	1120	103
Arrive On Green	0.09	0.20	0.20	0.22	0.32	0.32	0.13	0.40	0.40	0.07	0.34	0.34
Sat Flow, veh/h	1781	1870	1585	1781	2735	773	1781	3396	213	1781	3289	304
Grp Volume(v), veh/h	180	403	271	500	404	394	317	771	802	185	601	616
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1731	1781	1777	1832	1781	1777	1816
Q Serve(g_s), s	12.8	31.5	26.5	34.5	32.0	32.1	21.5	64.5	64.5	11.5	54.0	54.1
Cycle Q Clear(g_c), s	12.8	31.5	26.5	34.5	32.0	32.1	21.5	64.5	64.5	11.5	54.0	54.1
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.12	1.00		0.17
Lane Grp Cap(c), veh/h	291	368	312	429	569	554	285	716	739	173	605	618
V/C Ratio(X)	0.62	1.09	0.87	1.17	0.71	0.71	1.11	1.08	1.09	1.07	0.99	1.00
Avail Cap(c_a), veh/h	292	368	312	429	569	554	285	716	739	173	605	618
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)	0.74	0.74	0.74	1.00	1.00	1.00	0.66	0.66	0.66	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.6	64.3	62.2	51.3	47.9	47.9	54.3	47.8	47.8	48.3	52.6	52.6
Incr Delay (d2), s/veh	2.9	68.5	17.3	97.0	4.1	4.2	76.8	50.5	53.2	88.0	35.1	35.1
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	5.9	21.9	12.1	24.2	14.8	14.5	13.1	37.6	39.3	8.5	29.3	30.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.5	132.8	79.5	148.3	51.9	52.1	131.1	98.3	100.9	136.3	87.6	87.7
LnGrp LOS	D	F	E	F	D	D	F	F	F	F	F	F
Approach Vol, veh/h		854			1298			1890			1402	
Approach Delay, s/veh		98.1			89.1			104.9			94.1	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	69.0	39.0	36.0	26.0	59.0	19.3	55.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	11.5	64.5	34.5	31.5	21.5	54.5	14.9	51.1				
Max Q Clear Time (g_c+I1), s	13.5	66.5	36.5	33.5	23.5	56.1	14.8	34.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6				
Intersection Summary												
HCM 6th Ctrl Delay			97.3									
HCM 6th LOS			F									

Parkside Mixed-Use Development
6: Roswell Road & Cliftwood Drive/Carpenter Drive

no-build p.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	39	134	125	35	55	175	1522	22	68	1535	41
Future Volume (veh/h)	117	39	134	125	35	55	175	1522	22	68	1535	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1949	1949	1949	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	139	46	160	164	46	72	182	1585	23	71	1599	43
Peak Hour Factor	0.84	0.84	0.84	0.76	0.76	0.76	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	48	169	215	97	152	227	2315	34	208	2205	59
Arrive On Green	0.08	0.13	0.13	0.09	0.14	0.14	0.05	0.65	0.65	0.03	0.62	0.62
Sat Flow, veh/h	1781	366	1275	1856	684	1071	1781	3586	52	1781	3535	95
Grp Volume(v), veh/h	139	0	206	164	0	118	182	785	823	71	802	840
Grp Sat Flow(s),veh/h/ln	1781	0	1641	1856	0	1756	1781	1777	1861	1781	1777	1853
Q Serve(g_s), s	11.4	0.0	21.2	12.8	0.0	10.5	6.2	47.7	47.8	2.5	52.6	53.0
Cycle Q Clear(g_c), s	11.4	0.0	21.2	12.8	0.0	10.5	6.2	47.7	47.8	2.5	52.6	53.0
Prop In Lane	1.00		0.78	1.00		0.61	1.00		0.03	1.00		0.05
Lane Grp Cap(c), veh/h	284	0	217	215	0	249	227	1147	1201	208	1108	1156
V/C Ratio(X)	0.49	0.00	0.95	0.76	0.00	0.47	0.80	0.68	0.69	0.34	0.72	0.73
Avail Cap(c_a), veh/h	288	0	217	243	0	272	352	1147	1201	263	1108	1156
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)	0.98	0.00	0.98	1.00	0.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10
Uniform Delay (d), s/veh	57.7	0.0	73.2	58.1	0.0	67.1	29.6	19.1	19.2	18.1	21.9	22.0
Incr Delay (d2), s/veh	1.3	0.0	46.0	11.9	0.0	1.4	7.2	3.3	3.2	0.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.0	11.7	6.8	0.0	4.8	5.2	19.6	20.5	1.0	20.9	22.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.0	0.0	119.2	70.0	0.0	68.5	36.8	22.5	22.4	18.2	22.4	22.4
LnGrp LOS	E	A	F	E	A	E	D	C	C	B	C	C
Approach Vol, veh/h		345			282			1790			1713	
Approach Delay, s/veh		94.9			69.4			23.9			22.2	
Approach LOS		F			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	114.2	19.4	27.0	13.0	110.5	17.8	28.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.1	101.9	17.5	22.5	20.5	91.5	13.7	26.3				
Max Q Clear Time (g_c+l1), s	4.5	49.8	14.8	23.2	8.2	55.0	13.4	12.5				
Green Ext Time (p_c), s	0.1	16.1	0.1	0.0	0.4	15.1	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			32.2									
HCM 6th LOS			C									

Parkside Mixed-Use Development
9: Sandy Springs Circle & Cliftwood Drive

no-build p.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	47	3	43	41	159	6	132	46	150	154	19
Future Volume (veh/h)	13	47	3	43	41	159	6	132	46	150	154	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1949	1949	1949	1870	1870	1870	1909	1909	1909
Adj Flow Rate, veh/h	16	57	4	46	44	169	7	153	53	170	175	22
Peak Hour Factor	0.83	0.83	0.83	0.94	0.94	0.94	0.86	0.86	0.86	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	321	224	189	363	286	243	608	499	173	666	762	96
Arrive On Green	0.02	0.12	0.12	0.05	0.15	0.15	0.01	0.38	0.38	0.09	0.46	0.46
Sat Flow, veh/h	1781	1870	1585	1856	1949	1651	1781	1328	460	1818	1663	209
Grp Volume(v), veh/h	16	57	4	46	44	169	7	0	206	170	0	197
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1856	1949	1651	1781	0	1788	1818	0	1872
Q Serve(g_s), s	0.4	1.4	0.1	1.0	1.0	4.8	0.1	0.0	4.0	2.5	0.0	3.1
Cycle Q Clear(g_c), s	0.4	1.4	0.1	1.0	1.0	4.8	0.1	0.0	4.0	2.5	0.0	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		0.11
Lane Grp Cap(c), veh/h	321	224	189	363	286	243	608	0	672	666	0	858
V/C Ratio(X)	0.05	0.26	0.02	0.13	0.15	0.70	0.01	0.00	0.31	0.26	0.00	0.23
Avail Cap(c_a), veh/h	467	684	580	463	713	604	773	0	672	703	0	858
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.4	19.7	19.1	17.5	18.3	20.0	9.3	0.0	10.8	7.2	0.0	8.1
Incr Delay (d2), s/veh	0.1	0.6	0.0	0.2	0.2	3.6	0.0	0.0	1.2	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.6	0.0	0.4	0.4	1.8	0.0	0.0	1.5	0.7	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.5	20.3	19.2	17.7	18.6	23.5	9.4	0.0	12.0	7.4	0.0	8.7
LnGrp LOS	B	C	B	B	B	C	A	A	B	A	A	A
Approach Vol, veh/h		77			259			213			367	
Approach Delay, s/veh		19.8			21.7			11.9			8.1	
Approach LOS		B			C			B			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	23.0	6.8	10.4	5.0	27.1	5.5	11.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	18.5	5.0	18.0	5.0	19.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.5	6.0	3.0	3.4	2.1	5.1	2.4	6.8				
Green Ext Time (p_c), s	0.0	0.8	0.0	0.2	0.0	0.8	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			13.8									
HCM 6th LOS			B									

Parkside Mixed-Use Development
2: Hammond Exchange West Access & Hammond Drive

no-build p.m.

Intersection

Int Delay, s/veh 3.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	
Traffic Vol, veh/h	601	55	20	678	80	38
Future Vol, veh/h	601	55	20	678	80	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	96	96	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	633	58	21	706	107	51

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	691
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	900
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	900
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	34.5
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	274	-	-	900	-
HCM Lane V/C Ratio	0.574	-	-	0.023	-
HCM Control Delay (s)	34.5	-	-	9.1	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	3.3	-	-	0.1	-

Parkside Mixed-Use Development
5: Roswell Road & Parkside Access/Lowes Access

no-build p.m.

Intersection												
Int Delay, s/veh	36.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕		↕	↕		↕	↕	↕
Traffic Vol, veh/h	32	0	69	19	0	6	43	1558	54	13	1537	73
Future Vol, veh/h	32	0	69	19	0	6	43	1558	54	13	1537	73
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	0	-	140
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	67	67	67	96	96	96	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	0	82	28	0	9	45	1623	56	14	1618	77
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	2548	3415	809	2578	3464	840	1695	0	0	1679	0	0
Stage 1	1646	1646	-	1741	1741	-	-	-	-	-	-	-
Stage 2	902	1769	-	837	1723	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 13	7	323	~ 13	7	309	372	-	-	378	-	-
Stage 1	103	155	-	90	139	-	-	-	-	-	-	-
Stage 2	299	135	-	327	142	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 11	6	323	~ 9	6	309	372	-	-	378	-	-
Mov Cap-2 Maneuver	~ 11	6	-	~ 9	6	-	-	-	-	-	-	-
Stage 1	91	149	-	79	122	-	-	-	-	-	-	-
Stage 2	255	119	-	235	137	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, \$	580.9		1582.8			0.4			0.1			
HCM LOS	F		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	372	-	-	11	323	12	378	-	-			
HCM Lane V/C Ratio	0.12	-	-	3.463	0.254	3.109	0.036	-	-			
HCM Control Delay (s)	16	-	-	\$ 1790.5	19.9	\$ 1582.8	14.9	-	-			
HCM Lane LOS	C	-	-	F	C	F	B	-	-			
HCM 95th %tile Q(veh)	0.4	-	-	5.8	1	5.6	0.1	-	-			
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

Parkside Mixed-Use Development
7: Cliftwood Drive & Parkside East Access

no-build p.m.

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	214	218	44	44	27
Future Vol, veh/h	19	214	218	44	44	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	-5	-	0	-
Peak Hour Factor	88	88	92	92	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	243	237	48	63	39
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	285	0	-	0	403	119
Stage 1	-	-	-	-	237	-
Stage 2	-	-	-	-	166	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1274	-	-	-	575	910
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	846	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1274	-	-	-	564	910
Mov Cap-2 Maneuver	-	-	-	-	564	-
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	846	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		11.5		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1274	-	-	-	659	
HCM Lane V/C Ratio	0.017	-	-	-	0.154	
HCM Control Delay (s)	7.9	0.1	-	-	11.5	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5	

Parkside Mixed-Use Development
8: Cliftwood Drive & Parkside West Access

no-build p.m.

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	238	260	8	3	5
Future Vol, veh/h	5	238	260	8	3	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	-5	-	0	-
Peak Hour Factor	96	96	94	94	42	42
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	248	277	9	7	12
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	286	0	-	0	411	139
Stage 1	-	-	-	-	277	-
Stage 2	-	-	-	-	134	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1273	-	-	-	569	884
Stage 1	-	-	-	-	745	-
Stage 2	-	-	-	-	878	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1273	-	-	-	566	884
Mov Cap-2 Maneuver	-	-	-	-	566	-
Stage 1	-	-	-	-	741	-
Stage 2	-	-	-	-	878	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		10.1		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1273	-	-	-	730	
HCM Lane V/C Ratio	0.004	-	-	-	0.026	
HCM Control Delay (s)	7.8	0	-	-	10.1	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Parkside Mixed-Use Development
10: Sandy Springs Circle & Parkside South Access

no-build p.m.

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	16	288	6	2	298
Future Vol, veh/h	6	16	288	6	2	298
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	90	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	3	-	-	-3
Peak Hour Factor	35	35	90	90	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	46	320	7	2	339
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	494	160	0	0	327	0
Stage 1	320	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	504	857	-	-	1229	-
Stage 1	709	-	-	-	-	-
Stage 2	839	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	503	857	-	-	1229	-
Mov Cap-2 Maneuver	503	-	-	-	-	-
Stage 1	709	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.5	0		0.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 719		1229	-	
HCM Lane V/C Ratio	-	- 0.087		0.002	-	
HCM Control Delay (s)	-	- 10.5		7.9	0	
HCM Lane LOS	-	- B		A	A	
HCM 95th %tile Q(veh)	-	- 0.3		0	-	

Parkside Mixed-Use Development
 11: Sandy Springs Circle & Parkside North Access

no-build p.m.

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		W	W		W
Traffic Vol, veh/h	5	47	287	6	41	304
Future Vol, veh/h	5	47	287	6	41	304
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	130	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	4	-	-	-4
Peak Hour Factor	83	83	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	57	334	7	48	353
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	607	167	0	0	341	0
Stage 1	334	-	-	-	-	-
Stage 2	273	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	428	848	-	-	1215	-
Stage 1	697	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	407	848	-	-	1215	-
Mov Cap-2 Maneuver	407	-	-	-	-	-
Stage 1	697	-	-	-	-	-
Stage 2	711	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.1	0		1.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	768	1215	-	
HCM Lane V/C Ratio	-	-	0.082	0.039	-	
HCM Control Delay (s)	-	-	10.1	8.1	0.2	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-	

Appendix E

Future Intersection Operational Analysis

Parkside Mixed-Use Development
1: Sandy Springs Circle & Hammond Drive

future a.m. revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	389	73	59	285	58	47	123	53	77	198	65
Future Volume (veh/h)	63	389	73	59	285	58	47	123	53	77	198	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1864	1864	1864	1949	1949	1949
Adj Flow Rate, veh/h	75	463	87	69	335	68	55	145	62	91	233	76
Peak Hour Factor	0.84	0.84	0.84	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	722	139	214	898	180	661	717	307	515	1328	955
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.58	0.58	0.58	0.58	0.58	0.58
Sat Flow, veh/h	257	2373	455	858	2949	592	1067	1239	530	761	2296	1651
Grp Volume(v), veh/h	316	0	309	69	200	203	55	0	207	157	167	76
Grp Sat Flow(s),veh/h/ln	1466	0	1620	858	1777	1764	1067	0	1769	1373	1685	1651
Q Serve(g_s), s	8.3	0.0	12.6	5.8	6.8	6.9	2.0	0.0	4.3	2.3	3.6	1.6
Cycle Q Clear(g_c), s	15.2	0.0	12.6	18.4	6.8	6.9	5.5	0.0	4.3	6.6	3.6	1.6
Prop In Lane	0.24		0.28	1.00		0.34	1.00		0.30	0.58		1.00
Lane Grp Cap(c), veh/h	504	0	493	214	541	537	661	0	1024	868	975	955
V/C Ratio(X)	0.63	0.00	0.63	0.32	0.37	0.38	0.08	0.00	0.20	0.18	0.17	0.08
Avail Cap(c_a), veh/h	1366	0	1401	694	1536	1525	661	0	1024	868	975	955
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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	0.0	23.0	30.9	21.0	21.0	8.9	0.0	7.7	8.2	7.6	7.2
Incr Delay (d2), s/veh	1.3	0.0	1.3	0.9	0.4	0.4	0.2	0.0	0.4	0.5	0.4	0.2
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	5.0	0.0	4.7	1.2	2.7	2.8	0.4	0.0	1.5	1.3	1.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	0.0	24.3	31.8	21.4	21.5	9.1	0.0	8.2	8.7	8.0	7.3
LnGrp LOS	C	A	C	C	C	C	A	A	A	A	A	A
Approach Vol, veh/h		625			472			262			400	
Approach Delay, s/veh		24.7			22.9			8.4			8.1	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		49.0		27.9		49.0		27.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		44.5		66.5		44.5		66.5				
Max Q Clear Time (g_c+I1), s		7.5		17.2		8.6		20.4				
Green Ext Time (p_c), s		1.5		4.5		2.3		3.0				
Intersection Summary												
HCM 6th Ctrl Delay				18.0								
HCM 6th LOS				B								

Parkside Mixed-Use Development

3: Hammond Exchange East Access/Kroger Access & Hammond Drive

future a.m. revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	477	38	17	377	131	8	6	13	60	8	18
Future Volume (veh/h)	18	477	38	17	377	131	8	6	13	60	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	555	44	19	414	144	11	8	18	88	12	26
Peak Hour Factor	0.86	0.86	0.86	0.91	0.91	0.91	0.71	0.71	0.71	0.68	0.68	0.68
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	1032	82	273	716	319	290	225	406	780	99	832
Arrive On Green	0.02	0.31	0.31	0.20	0.20	0.20	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1781	3336	264	820	3554	1585	388	428	773	1249	188	1585
Grp Volume(v), veh/h	21	295	304	19	414	144	37	0	0	100	0	26
Grp Sat Flow(s),veh/h/ln	1781	1777	1823	820	1777	1585	1589	0	0	1437	0	1585
Q Serve(g_s), s	0.5	7.5	7.5	1.1	5.7	4.3	0.0	0.0	0.0	1.2	0.0	0.4
Cycle Q Clear(g_c), s	0.5	7.5	7.5	2.7	5.7	4.3	0.6	0.0	0.0	1.8	0.0	0.4
Prop In Lane	1.00		0.14	1.00		1.00	0.30		0.49	0.88		1.00
Lane Grp Cap(c), veh/h	259	549	564	273	716	319	920	0	0	879	0	832
V/C Ratio(X)	0.08	0.54	0.54	0.07	0.58	0.45	0.04	0.00	0.00	0.11	0.00	0.03
Avail Cap(c_a), veh/h	493	1391	1427	553	1931	861	920	0	0	879	0	832
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	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.5	15.5	15.5	19.1	19.6	19.0	6.3	0.0	0.0	6.5	0.0	6.2
Incr Delay (d2), s/veh	0.1	0.8	0.8	0.1	0.7	1.0	0.1	0.0	0.0	0.3	0.0	0.1
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	0.2	2.7	2.8	0.2	2.2	1.5	0.2	0.0	0.0	0.5	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.6	16.3	16.3	19.2	20.3	20.0	6.3	0.0	0.0	6.8	0.0	6.3
LnGrp LOS	B	B	B	B	C	C	A	A	A	A	A	A
Approach Vol, veh/h		620			577			37			126	
Approach Delay, s/veh		16.3			20.2			6.3			6.7	
Approach LOS		B			C			A			A	
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		33.0		21.3		33.0	5.9	15.4				
Change Period (Y+Rc), s		4.5		4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5		42.5		28.5	8.5	29.5				
Max Q Clear Time (g_c+I1), s		2.6		9.5		3.8	2.5	7.7				
Green Ext Time (p_c), s		0.1		3.8		0.6	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay				16.8								
HCM 6th LOS				B								

Parkside Mixed-Use Development
4: Roswell Road & Hammond Drive

future a.m. revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	360	137	202	254	77	184	1112	121	120	992	80
Future Volume (veh/h)	69	360	137	202	254	77	184	1112	121	120	992	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	429	163	213	267	81	192	1158	126	126	1044	84
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	464	394	243	838	249	283	1584	172	221	1566	126
Arrive On Green	0.04	0.25	0.25	0.10	0.31	0.31	0.07	0.49	0.49	0.05	0.47	0.47
Sat Flow, veh/h	1781	1870	1585	1781	2701	802	1781	3233	351	1781	3331	268
Grp Volume(v), veh/h	82	429	163	213	174	174	192	635	649	126	557	571
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1726	1781	1777	1807	1781	1777	1822
Q Serve(g_s), s	5.5	35.8	13.8	13.9	12.0	12.4	8.8	45.4	45.7	5.9	38.7	38.7
Cycle Q Clear(g_c), s	5.5	35.8	13.8	13.9	12.0	12.4	8.8	45.4	45.7	5.9	38.7	38.7
Prop In Lane	1.00		1.00	1.00		0.46	1.00		0.19	1.00		0.15
Lane Grp Cap(c), veh/h	352	464	394	243	552	536	283	871	886	221	835	856
V/C Ratio(X)	0.23	0.92	0.41	0.88	0.31	0.33	0.68	0.73	0.73	0.57	0.67	0.67
Avail Cap(c_a), veh/h	352	532	451	249	622	604	376	871	886	272	835	856
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)	0.80	0.80	0.80	1.00	1.00	1.00	0.76	0.76	0.76	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	58.7	50.4	42.4	42.2	42.3	26.5	32.4	32.5	27.8	32.7	32.7
Incr Delay (d2), s/veh	0.3	17.4	0.6	27.4	0.3	0.3	2.3	4.1	4.1	2.3	4.2	4.1
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	2.5	19.1	5.6	8.0	5.4	5.4	3.8	19.9	20.3	2.5	17.2	17.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	76.0	50.9	69.9	42.5	42.7	28.9	36.5	36.5	30.1	36.9	36.8
LnGrp LOS	D	E	D	E	D	D	C	D	D	C	D	D
Approach Vol, veh/h		674			561			1476			1254	
Approach Delay, s/veh		65.9			52.9			35.5			36.2	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	82.9	20.4	44.2	15.6	79.7	10.5	54.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.5	67.5	16.5	45.5	19.5	60.5	6.0	56.0				
Max Q Clear Time (g_c+l1), s	7.9	47.7	15.9	37.8	10.8	40.7	7.5	14.4				
Green Ext Time (p_c), s	0.1	8.1	0.0	1.9	0.3	6.8	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			43.4									
HCM 6th LOS			D									

Parkside Mixed-Use Development
6: Roswell Road & Cliftwood Drive/Carpenter Drive

future a.m. revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	49	116	65	14	39	215	1274	19	50	1177	40
Future Volume (veh/h)	96	49	116	65	14	39	215	1274	19	50	1177	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1949	1949	1949	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	58	136	84	18	51	253	1499	22	54	1279	43
Peak Hour Factor	0.85	0.85	0.85	0.77	0.77	0.77	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	258	64	150	153	54	154	340	2466	36	249	2294	77
Arrive On Green	0.06	0.13	0.13	0.05	0.12	0.12	0.06	0.69	0.69	0.03	0.65	0.65
Sat Flow, veh/h	1781	497	1164	1856	449	1271	1781	3585	53	1781	3508	118
Grp Volume(v), veh/h	113	0	194	84	0	69	253	742	779	54	647	675
Grp Sat Flow(s),veh/h/ln	1781	0	1661	1856	0	1720	1781	1777	1861	1781	1777	1849
Q Serve(g_s), s	9.5	0.0	19.6	6.7	0.0	6.2	7.7	38.1	38.2	1.7	33.7	33.8
Cycle Q Clear(g_c), s	9.5	0.0	19.6	6.7	0.0	6.2	7.7	38.1	38.2	1.7	33.7	33.8
Prop In Lane	1.00		0.70	1.00		0.74	1.00		0.03	1.00		0.06
Lane Grp Cap(c), veh/h	258	0	214	153	0	208	340	1222	1280	249	1162	1209
V/C Ratio(X)	0.44	0.00	0.91	0.55	0.00	0.33	0.74	0.61	0.61	0.22	0.56	0.56
Avail Cap(c_a), veh/h	258	0	249	174	0	264	561	1222	1280	276	1162	1209
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)	0.99	0.00	0.99	1.00	0.00	1.00	1.00	1.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	61.3	0.0	73.0	62.2	0.0	68.4	17.1	14.2	14.2	12.6	16.0	16.0
Incr Delay (d2), s/veh	1.2	0.0	30.4	3.1	0.0	0.9	3.2	2.3	2.2	0.3	1.2	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	4.4	0.0	10.2	3.3	0.0	2.8	4.4	15.0	15.7	0.7	13.4	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.4	0.0	103.4	65.3	0.0	69.3	20.3	16.5	16.4	12.9	17.2	17.2
LnGrp LOS	E	A	F	E	A	E	C	B	B	B	B	B
Approach Vol, veh/h		307			153			1774			1376	
Approach Delay, s/veh		88.3			67.1			17.0			17.0	
Approach LOS		F			E			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	121.4	13.0	26.4	14.9	115.7	14.4	25.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.1	108.9	10.5	25.5	31.5	84.5	9.9	26.1				
Max Q Clear Time (g_c+l1), s	3.7	40.2	8.7	21.6	9.7	35.8	11.5	8.2				
Green Ext Time (p_c), s	0.0	15.0	0.0	0.3	0.7	11.0	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			25.2									
HCM 6th LOS			C									

Parkside Mixed-Use Development
9: Sandy Springs Circle & Cliftwood Drive

future a.m. revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	45	3	44	60	84	0	94	30	107	154	14
Future Volume (veh/h)	10	45	3	44	60	84	0	94	30	107	154	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1949	1949	1949	1870	1870	1870	1909	1909	1909
Adj Flow Rate, veh/h	16	70	5	52	71	100	0	99	32	124	179	16
Peak Hour Factor	0.64	0.64	0.64	0.84	0.84	0.84	0.95	0.95	0.95	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	308	189	160	339	260	220	613	523	169	738	975	87
Arrive On Green	0.02	0.10	0.10	0.05	0.13	0.13	0.00	0.39	0.39	0.08	0.56	0.56
Sat Flow, veh/h	1781	1870	1585	1856	1949	1651	1781	1354	438	1818	1727	154
Grp Volume(v), veh/h	16	70	5	52	71	100	0	0	131	124	0	195
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1856	1949	1651	1781	0	1792	1818	0	1882
Q Serve(g_s), s	0.4	1.7	0.1	1.2	1.6	2.7	0.0	0.0	2.3	1.7	0.0	2.4
Cycle Q Clear(g_c), s	0.4	1.7	0.1	1.2	1.6	2.7	0.0	0.0	2.3	1.7	0.0	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.08
Lane Grp Cap(c), veh/h	308	189	160	339	260	220	613	0	692	738	0	1062
V/C Ratio(X)	0.05	0.37	0.03	0.15	0.27	0.45	0.00	0.00	0.19	0.17	0.00	0.18
Avail Cap(c_a), veh/h	458	703	596	436	733	621	795	0	692	794	0	1062
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.7	20.1	19.4	17.7	18.7	19.1	0.0	0.0	9.7	6.3	0.0	5.1
Incr Delay (d2), s/veh	0.1	1.2	0.1	0.2	0.6	1.5	0.0	0.0	0.6	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.7	0.0	0.5	0.7	1.0	0.0	0.0	0.8	0.5	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.7	21.3	19.5	17.9	19.2	20.6	0.0	0.0	10.3	6.4	0.0	5.4
LnGrp LOS	B	C	B	B	B	C	A	A	B	A	A	A
Approach Vol, veh/h		91			223			131			319	
Approach Delay, s/veh		20.7			19.5			10.3			5.8	
Approach LOS		C			B			B			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	23.0	7.0	9.3	0.0	31.5	5.5	10.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	18.5	5.0	18.0	5.0	19.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.7	4.3	3.2	3.7	0.0	4.4	2.4	4.7				
Green Ext Time (p_c), s	0.0	0.5	0.0	0.2	0.0	0.8	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			12.4									
HCM 6th LOS			B									

Parkside Mixed-Use Development
2: Hammond Exchange West Access & Hammond Drive

future a.m. revised July 2021

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	
Traffic Vol, veh/h	504	11	37	354	8	18
Future Vol, veh/h	504	11	37	354	8	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	92	92	31	31
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	554	12	40	385	26	58
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	566	0	833	283
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	273	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1002	-	307	714
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1002	-	295	714
Mov Cap-2 Maneuver	-	-	-	-	295	-
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	718	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.8		13.7	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	497	-	-	1002	-	
HCM Lane V/C Ratio	0.169	-	-	0.04	-	
HCM Control Delay (s)	13.7	-	-	8.7	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-	

Parkside Mixed-Use Development
5: Roswell Road & Parkside Access/Lowes Access

future a.m. revised July 2021

Intersection												
Int Delay, s/veh	17.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	22	23	0	5	17	1416	40	8	1182	31
Future Vol, veh/h	3	0	22	23	0	5	17	1416	40	8	1182	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	0	-	140
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	47	47	47	94	94	94	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	28	49	0	11	18	1506	43	8	1194	31
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1999	2795	597	2177	2805	775	1225	0	0	1549	0	0
Stage 1	1210	1210	-	1564	1564	-	-	-	-	-	-	-
Stage 2	789	1585	-	613	1241	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	35	18	446	~ 26	18	341	565	-	-	424	-	-
Stage 1	194	254	-	117	171	-	-	-	-	-	-	-
Stage 2	350	167	-	446	245	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	33	17	446	~ 23	17	341	565	-	-	424	-	-
Mov Cap-2 Maneuver	33	17	-	~ 23	17	-	-	-	-	-	-	-
Stage 1	188	249	-	113	166	-	-	-	-	-	-	-
Stage 2	328	162	-	411	240	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	27.3		\$ 820.3		0.1		0.1					
HCM LOS	D		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	565	-	-	33	446	28	424	-	-			
HCM Lane V/C Ratio	0.032	-	-	0.114	0.062	2.128	0.019	-	-			
HCM Control Delay (s)	11.6	-	-	127.6	13.6	\$ 820.3	13.7	-	-			
HCM Lane LOS	B	-	-	F	B	F	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.2	7.1	0.1	-	-			
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

Parkside Mixed-Use Development
7: Cliftwood Drive & Parkside East Access

future a.m. revised July 2021

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	232	215	13	8	3
Future Vol, veh/h	13	232	215	13	8	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	-5	-	0	-
Peak Hour Factor	93	93	89	89	58	58
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	249	242	15	14	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	257	0	-	0	395	121
Stage 1	-	-	-	-	242	-
Stage 2	-	-	-	-	153	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1305	-	-	-	582	908
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	859	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1305	-	-	-	575	908
Mov Cap-2 Maneuver	-	-	-	-	575	-
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	859	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		10.8		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1305	-	-	-	639	
HCM Lane V/C Ratio	0.011	-	-	-	0.03	
HCM Control Delay (s)	7.8	0	-	-	10.8	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Parkside Mixed-Use Development
8: Cliftwood Drive & Parkside West Access

future a.m. revised July 2021

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	187	179	53	28	11
Future Vol, veh/h	11	187	179	53	28	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	-5	-	0	-
Peak Hour Factor	93	93	89	89	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	201	201	60	37	15
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	261	0	-	0	326	101
Stage 1	-	-	-	-	201	-
Stage 2	-	-	-	-	125	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1300	-	-	-	643	935
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	887	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1300	-	-	-	637	935
Mov Cap-2 Maneuver	-	-	-	-	637	-
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	887	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		10.6		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1300	-	-	-	700	
HCM Lane V/C Ratio	0.009	-	-	-	0.074	
HCM Control Delay (s)	7.8	0	-	-	10.6	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Parkside Mixed-Use Development
10: Sandy Springs Circle & Parkside South Access

future a.m. revised July 2021

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	32	185	5	26	260
Future Vol, veh/h	4	32	185	5	26	260
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	90	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	3	-	-	-3
Peak Hour Factor	70	70	92	92	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	46	201	5	31	306
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	416	101	0	0	206	0
Stage 1	201	-	-	-	-	-
Stage 2	215	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	565	935	-	-	1363	-
Stage 1	813	-	-	-	-	-
Stage 2	800	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	550	935	-	-	1363	-
Mov Cap-2 Maneuver	550	-	-	-	-	-
Stage 1	813	-	-	-	-	-
Stage 2	778	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.4	0		0.8		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	868	1363	-	
HCM Lane V/C Ratio	-	-	0.059	0.022	-	
HCM Control Delay (s)	-	-	9.4	7.7	0.1	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	

Parkside Mixed-Use Development
11: Sandy Springs Circle & Parkside North Access

future a.m. revised July 2021

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	22	193	9	52	293
Future Vol, veh/h	5	22	193	9	52	293
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	130	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	4	-	-	-4
Peak Hour Factor	70	70	84	84	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	31	230	11	64	362
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	539	115	0	0	241	0
Stage 1	230	-	-	-	-	-
Stage 2	309	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	473	916	-	-	1323	-
Stage 1	786	-	-	-	-	-
Stage 2	718	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	444	916	-	-	1323	-
Mov Cap-2 Maneuver	444	-	-	-	-	-
Stage 1	786	-	-	-	-	-
Stage 2	674	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10	0		1.4		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	765	1323	-	
HCM Lane V/C Ratio	-	-	0.05	0.049	-	
HCM Control Delay (s)	-	-	10	7.9	0.2	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-	

Parkside Mixed-Use Development
12: Cliftwood Drive & New Access

future a.m. revised July 2021

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	215	231	9	29	2
Future Vol, veh/h	0	215	231	9	29	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	-5	-	0	-
Peak Hour Factor	93	93	89	89	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	231	260	10	39	3
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	270	0	-	0	376	130
Stage 1	-	-	-	-	260	-
Stage 2	-	-	-	-	116	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1290	-	-	-	598	896
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	896	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1290	-	-	-	598	896
Mov Cap-2 Maneuver	-	-	-	-	598	-
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	896	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		11.3		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1290	-	-	-	611	
HCM Lane V/C Ratio	-	-	-	-	0.068	
HCM Control Delay (s)	0	-	-	-	11.3	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Parkside Mixed-Use Development
1: Sandy Springs Circle & Hammond Drive

future p.m. revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	374	65	132	552	139	84	267	86	101	187	99
Future Volume (veh/h)	91	374	65	132	552	139	84	267	86	101	187	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1864	1864	1864	1949	1949	1949
Adj Flow Rate, veh/h	108	445	77	150	627	158	95	303	98	111	205	109
Peak Hour Factor	0.84	0.84	0.84	0.88	0.88	0.88	0.88	0.88	0.88	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	745	143	286	1156	291	529	674	218	435	842	825
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	263	1812	348	880	2812	708	1062	1349	436	728	1685	1651
Grp Volume(v), veh/h	267	0	363	150	396	389	95	0	401	111	205	109
Grp Sat Flow(s),veh/h/ln	783	0	1639	880	1777	1743	1062	0	1786	728	1685	1651
Q Serve(g_s), s	17.9	0.0	16.9	15.7	17.1	17.1	5.7	0.0	14.6	7.9	7.0	3.6
Cycle Q Clear(g_c), s	35.0	0.0	16.9	32.6	17.1	17.1	12.7	0.0	14.6	22.5	7.0	3.6
Prop In Lane	0.40		0.21	1.00		0.41	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	372	0	674	286	731	717	529	0	893	435	842	825
V/C Ratio(X)	0.72	0.00	0.54	0.52	0.54	0.54	0.18	0.00	0.45	0.26	0.24	0.13
Avail Cap(c_a), veh/h	579	0	982	451	1064	1044	529	0	893	435	842	825
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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	0.0	22.5	34.8	22.5	22.6	18.0	0.0	16.3	23.6	14.4	13.5
Incr Delay (d2), s/veh	2.6	0.0	0.7	1.5	0.6	0.6	0.7	0.0	1.6	1.4	0.7	0.3
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	6.2	0.0	6.4	3.4	7.0	6.8	1.5	0.0	6.1	2.0	2.7	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	0.0	23.2	36.3	23.2	23.2	18.7	0.0	17.9	25.0	15.1	13.9
LnGrp LOS	C	A	C	D	C	C	B	A	B	C	B	B
Approach Vol, veh/h		630			935			496			425	
Approach Delay, s/veh		27.5			25.3			18.1			17.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		55.0		46.0		55.0		46.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		50.5		60.5		50.5		60.5				
Max Q Clear Time (g_c+I1), s		16.6		37.0		24.5		34.6				
Green Ext Time (p_c), s		3.1		4.6		2.4		6.3				
Intersection Summary												
HCM 6th Ctrl Delay			23.1									
HCM 6th LOS			C									

Parkside Mixed-Use Development

3: Hammond Exchange East Access/Kroger Access & Hammond Drive

future p.m. revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	545	118	95	556	208	96	40	104	170	22	46
Future Volume (veh/h)	14	545	118	95	556	208	96	40	104	170	22	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	599	130	102	598	224	114	48	124	181	23	49
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.84	0.84	0.84	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	240	1104	239	264	1052	469	278	130	256	564	66	775
Arrive On Green	0.02	0.38	0.38	0.30	0.30	0.30	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1781	2905	629	726	3554	1585	419	265	524	951	135	1585
Grp Volume(v), veh/h	15	366	363	102	598	224	286	0	0	204	0	49
Grp Sat Flow(s),veh/h/ln	1781	1777	1757	726	1777	1585	1209	0	0	1086	0	1585
Q Serve(g_s), s	0.4	11.0	11.1	8.8	9.8	7.9	6.3	0.0	0.0	0.0	0.0	1.1
Cycle Q Clear(g_c), s	0.4	11.0	11.1	14.1	9.8	7.9	16.4	0.0	0.0	10.1	0.0	1.1
Prop In Lane	1.00		0.36	1.00		1.00	0.40		0.43	0.89		1.00
Lane Grp Cap(c), veh/h	240	675	668	264	1052	469	664	0	0	630	0	775
V/C Ratio(X)	0.06	0.54	0.54	0.39	0.57	0.48	0.43	0.00	0.00	0.32	0.00	0.06
Avail Cap(c_a), veh/h	350	972	961	340	1426	636	664	0	0	630	0	775
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	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.9	16.6	16.6	24.4	20.4	19.8	13.8	0.0	0.0	11.5	0.0	9.2
Incr Delay (d2), s/veh	0.1	0.7	0.7	0.9	0.5	0.8	2.0	0.0	0.0	1.4	0.0	0.2
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	0.1	4.1	4.1	1.5	3.8	2.8	3.5	0.0	0.0	2.1	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.0	17.3	17.3	25.3	20.9	20.5	15.8	0.0	0.0	12.8	0.0	9.4
LnGrp LOS	B	B	B	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		744			924			286			253	
Approach Delay, s/veh		17.3			21.3			15.8			12.2	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		38.0		30.5		38.0	5.7	24.8				
Change Period (Y+Rc), s		4.5		4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		33.5		37.5		33.5	5.5	27.5				
Max Q Clear Time (g_c+I1), s		18.4		13.1		12.1	2.4	16.1				
Green Ext Time (p_c), s		1.6		4.7		1.5	0.0	4.2				
Intersection Summary												
HCM 6th Ctrl Delay				18.2								
HCM 6th LOS				B								

Parkside Mixed-Use Development
4: Roswell Road & Hammond Drive

future p.m. revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	401	252	441	561	153	298	1393	91	170	1028	109
Future Volume (veh/h)	188	401	252	441	561	153	298	1393	91	170	1028	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	202	431	271	507	645	176	317	1482	97	185	1117	118
Peak Hour Factor	0.93	0.93	0.93	0.87	0.87	0.87	0.94	0.94	0.94	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	392	332	418	899	245	284	1365	89	162	1085	114
Arrive On Green	0.09	0.21	0.21	0.21	0.33	0.33	0.13	0.40	0.40	0.07	0.33	0.33
Sat Flow, veh/h	1781	1870	1585	1781	2760	752	1781	3387	221	1781	3243	342
Grp Volume(v), veh/h	202	431	271	507	415	406	317	774	805	185	611	624
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1735	1781	1777	1831	1781	1777	1809
Q Serve(g_s), s	14.3	33.5	26.1	33.5	32.9	33.0	21.5	64.5	64.5	10.5	53.5	53.5
Cycle Q Clear(g_c), s	14.3	33.5	26.1	33.5	32.9	33.0	21.5	64.5	64.5	10.5	53.5	53.5
Prop In Lane	1.00		1.00	1.00		0.43	1.00		0.12	1.00		0.19
Lane Grp Cap(c), veh/h	291	392	332	418	579	565	284	716	738	162	594	605
V/C Ratio(X)	0.70	1.10	0.82	1.21	0.72	0.72	1.11	1.08	1.09	1.14	1.03	1.03
Avail Cap(c_a), veh/h	291	392	332	418	579	565	284	716	738	162	594	605
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)	0.72	0.72	0.72	1.00	1.00	1.00	0.63	0.63	0.63	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	63.2	60.3	51.6	47.5	47.5	54.4	47.8	47.8	46.6	53.3	53.3
Incr Delay (d2), s/veh	5.1	69.0	10.9	116.1	4.3	4.4	77.5	51.5	54.4	114.3	44.5	44.9
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	6.8	23.4	11.5	25.7	15.2	14.9	13.2	37.8	39.6	9.2	30.6	31.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.9	132.3	71.3	167.8	51.7	51.9	131.9	99.3	102.2	160.9	97.7	98.1
LnGrp LOS	D	F	E	F	D	D	F	F	F	F	F	F
Approach Vol, veh/h		904			1328			1896			1420	
Approach Delay, s/veh		95.6			96.1			106.0			106.1	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	69.0	38.0	38.0	26.0	58.0	19.4	56.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	64.5	33.5	33.5	21.5	53.5	14.9	52.1				
Max Q Clear Time (g_c+I1), s	12.5	66.5	35.5	35.5	23.5	55.5	16.3	35.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8				
Intersection Summary												
HCM 6th Ctrl Delay			101.9									
HCM 6th LOS			F									

Parkside Mixed-Use Development
6: Roswell Road & Cliftwood Drive/Carpenter Drive

future p.m. revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	46	195	125	40	55	226	1511	22	68	1535	51
Future Volume (veh/h)	139	46	195	125	40	55	226	1511	22	68	1535	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1949	1949	1949	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	165	55	232	164	53	72	235	1574	23	71	1599	53
Peak Hour Factor	0.84	0.84	0.84	0.76	0.76	0.76	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	318	50	211	201	117	159	257	2223	32	196	1968	65
Arrive On Green	0.09	0.16	0.16	0.09	0.16	0.16	0.09	0.62	0.62	0.03	0.56	0.56
Sat Flow, veh/h	1781	313	1320	1856	749	1017	1781	3585	52	1781	3510	116
Grp Volume(v), veh/h	165	0	287	164	0	125	235	779	818	71	807	845
Grp Sat Flow(s),veh/h/ln	1781	0	1633	1856	0	1766	1781	1777	1861	1781	1777	1849
Q Serve(g_s), s	13.1	0.0	27.2	12.5	0.0	10.9	12.6	50.4	50.6	2.9	62.2	62.8
Cycle Q Clear(g_c), s	13.1	0.0	27.2	12.5	0.0	10.9	12.6	50.4	50.6	2.9	62.2	62.8
Prop In Lane	1.00		0.81	1.00		0.58	1.00		0.03	1.00		0.06
Lane Grp Cap(c), veh/h	318	0	261	201	0	277	257	1102	1154	196	996	1037
V/C Ratio(X)	0.52	0.00	1.10	0.82	0.00	0.45	0.92	0.71	0.71	0.36	0.81	0.81
Avail Cap(c_a), veh/h	324	0	261	220	0	289	336	1102	1154	253	996	1037
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)	0.98	0.00	0.98	1.00	0.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	53.7	0.0	71.4	55.6	0.0	65.1	45.2	21.8	21.9	21.2	30.1	30.2
Incr Delay (d2), s/veh	1.4	0.0	84.1	19.2	0.0	1.2	24.4	3.8	3.7	0.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	17.5	6.9	0.0	5.0	11.7	21.1	22.2	1.2	25.6	26.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	0.0	155.5	74.8	0.0	66.2	69.6	25.7	25.6	21.3	30.8	30.9
LnGrp LOS	E	A	F	E	A	E	E	C	C	C	C	C
Approach Vol, veh/h		452			289			1832			1723	
Approach Delay, s/veh		118.8			71.1			31.3			30.4	
Approach LOS		F			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	109.9	19.1	31.7	19.4	99.8	19.6	31.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.3	98.2	16.3	27.2	22.5	86.0	15.7	27.8				
Max Q Clear Time (g_c+I1), s	4.9	52.6	14.5	29.2	14.6	64.8	15.1	12.9				
Green Ext Time (p_c), s	0.1	15.4	0.1	0.0	0.4	11.7	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			42.8									
HCM 6th LOS			D									

Parkside Mixed-Use Development
9: Sandy Springs Circle & Cliftwood Drive

future p.m. revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	55	3	45	49	159	6	134	48	150	158	30
Future Volume (veh/h)	20	55	3	45	49	159	6	134	48	150	158	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1949	1949	1949	1870	1870	1870	1909	1909	1909
Adj Flow Rate, veh/h	24	66	4	48	52	169	7	156	56	170	180	34
Peak Hour Factor	0.83	0.83	0.83	0.94	0.94	0.94	0.86	0.86	0.86	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	339	238	202	367	287	244	595	488	175	653	708	134
Arrive On Green	0.03	0.13	0.13	0.05	0.15	0.15	0.01	0.37	0.37	0.09	0.45	0.45
Sat Flow, veh/h	1781	1870	1585	1856	1949	1651	1781	1314	472	1818	1561	295
Grp Volume(v), veh/h	24	66	4	48	52	169	7	0	212	170	0	214
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1856	1949	1651	1781	0	1785	1818	0	1856
Q Serve(g_s), s	0.6	1.6	0.1	1.1	1.2	4.8	0.1	0.0	4.2	2.6	0.0	3.5
Cycle Q Clear(g_c), s	0.6	1.6	0.1	1.1	1.2	4.8	0.1	0.0	4.2	2.6	0.0	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		0.16
Lane Grp Cap(c), veh/h	339	238	202	367	287	244	595	0	664	653	0	841
V/C Ratio(X)	0.07	0.28	0.02	0.13	0.18	0.69	0.01	0.00	0.32	0.26	0.00	0.25
Avail Cap(c_a), veh/h	468	676	573	463	705	597	757	0	664	688	0	841
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.0	19.7	19.0	17.4	18.6	20.2	9.6	0.0	11.2	7.4	0.0	8.4
Incr Delay (d2), s/veh	0.1	0.6	0.0	0.2	0.3	3.5	0.0	0.0	1.3	0.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.7	0.0	0.4	0.5	1.9	0.0	0.0	1.6	0.8	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	20.3	19.0	17.5	18.9	23.7	9.6	0.0	12.4	7.6	0.0	9.1
LnGrp LOS	B	C	B	B	B	C	A	A	B	A	A	A
Approach Vol, veh/h		94			269			219			384	
Approach Delay, s/veh		19.7			21.7			12.3			8.5	
Approach LOS		B			C			B			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	23.0	6.9	10.8	5.0	27.1	5.9	11.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	18.5	5.0	18.0	5.0	19.0	5.0	18.0				
Max Q Clear Time (g_c+l1), s	4.6	6.2	3.1	3.6	2.1	5.5	2.6	6.8				
Green Ext Time (p_c), s	0.0	0.9	0.0	0.2	0.0	0.9	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			14.1									
HCM 6th LOS			B									

Parkside Mixed-Use Development
2: Hammond Exchange West Access & Hammond Drive

future p.m. revised July 2021

Intersection						
Int Delay, s/veh	5.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	621	55	41	693	80	72
Future Vol, veh/h	621	55	41	693	80	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	96	96	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	654	58	43	722	107	96
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	712	0	1130	356
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	447	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	884	-	197	640
Stage 1	-	-	-	-	463	-
Stage 2	-	-	-	-	611	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	884	-	187	640
Mov Cap-2 Maneuver	-	-	-	-	187	-
Stage 1	-	-	-	-	463	-
Stage 2	-	-	-	-	581	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.5		45	
HCM LOS					E	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	281	-	-	884	-	
HCM Lane V/C Ratio	0.721	-	-	0.048	-	
HCM Control Delay (s)	45	-	-	9.3	-	
HCM Lane LOS	E	-	-	A	-	
HCM 95th %tile Q(veh)	5.1	-	-	0.2	-	

Parkside Mixed-Use Development
5: Roswell Road & Parkside Access/Lowes Access

future p.m. revised July 2021

Intersection												
Int Delay, s/veh	37.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕		↕	↕↕		↕	↕↕	↕
Traffic Vol, veh/h	32	0	69	20	0	6	43	1564	55	13	1534	85
Future Vol, veh/h	32	0	69	20	0	6	43	1564	55	13	1534	85
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	0	-	140
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	67	67	67	96	96	96	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	0	82	30	0	9	45	1629	57	14	1615	89
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2548	3419	808	2584	3480	843	1704	0	0	1686	0	0
Stage 1	1643	1643	-	1748	1748	-	-	-	-	-	-	-
Stage 2	905	1776	-	836	1732	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 13	7	324	~ 13	6	307	369	-	-	375	-	-
Stage 1	104	156	-	89	138	-	-	-	-	-	-	-
Stage 2	298	134	-	328	141	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 11	6	324	~ 9	5	307	369	-	-	375	-	-
Mov Cap-2 Maneuver	~ 11	6	-	~ 9	5	-	-	-	-	-	-	-
Stage 1	91	150	-	78	121	-	-	-	-	-	-	-
Stage 2	254	118	-	236	136	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s\$ 580.8			\$ 1637.8		0.4		0.1					
HCM LOS	F		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	369	-	-	11	324	12	375	-	-			
HCM Lane V/C Ratio	0.121	-	-	3.463	0.254	3.234	0.036	-	-			
HCM Control Delay (s)	16.1	-	-	\$ 1790.5	19.8	\$ 1637.8	15	-	-			
HCM Lane LOS	C	-	-	F	C	F	B	-	-			
HCM 95th %tile Q(veh)	0.4	-	-	5.8	1	5.8	0.1	-	-			
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

Parkside Mixed-Use Development
7: Cliftwood Drive & Parkside East Access

future p.m. revised July 2021

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	304	284	44	44	27
Future Vol, veh/h	19	304	284	44	44	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	-5	-	0	-
Peak Hour Factor	88	88	92	92	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	345	309	48	63	39
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	357	0	-	0	526	155
Stage 1	-	-	-	-	309	-
Stage 2	-	-	-	-	217	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1198	-	-	-	482	863
Stage 1	-	-	-	-	718	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1198	-	-	-	471	863
Mov Cap-2 Maneuver	-	-	-	-	471	-
Stage 1	-	-	-	-	701	-
Stage 2	-	-	-	-	798	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		12.7		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1198	-	-	-	569	
HCM Lane V/C Ratio	0.018	-	-	-	0.178	
HCM Control Delay (s)	8.1	0.1	-	-	12.7	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6	

Parkside Mixed-Use Development
8: Cliftwood Drive & Parkside West Access

future p.m. revised July 2021

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	238	259	46	76	17
Future Vol, veh/h	15	238	259	46	76	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	-5	-	0	-
Peak Hour Factor	96	96	94	94	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	248	276	49	101	23
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	325	0	-	0	432	138
Stage 1	-	-	-	-	276	-
Stage 2	-	-	-	-	156	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1231	-	-	-	552	885
Stage 1	-	-	-	-	746	-
Stage 2	-	-	-	-	856	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1231	-	-	-	544	885
Mov Cap-2 Maneuver	-	-	-	-	544	-
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	856	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		12.8		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1231	-	-	-	585	
HCM Lane V/C Ratio	0.013	-	-	-	0.212	
HCM Control Delay (s)	8	0.1	-	-	12.8	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.8	

Parkside Mixed-Use Development
10: Sandy Springs Circle & Parkside South Access

future p.m. revised July 2021

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	44	290	13	35	309
Future Vol, veh/h	12	44	290	13	35	309
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	90	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	3	-	-	-3
Peak Hour Factor	70	70	90	90	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	63	322	14	40	351
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	578	161	0	0	336	0
Stage 1	322	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	446	855	-	-	1220	-
Stage 1	707	-	-	-	-	-
Stage 2	763	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	428	855	-	-	1220	-
Mov Cap-2 Maneuver	428	-	-	-	-	-
Stage 1	707	-	-	-	-	-
Stage 2	732	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.8	0		0.9		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	704	1220	-	
HCM Lane V/C Ratio	-	-	0.114	0.033	-	
HCM Control Delay (s)	-	-	10.8	8.1	0.1	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-	

Parkside Mixed-Use Development
11: Sandy Springs Circle & Parkside North Access

future p.m. revised July 2021

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	94	315	11	76	334
Future Vol, veh/h	18	94	315	11	76	334
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	130	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	4	-	-	-4
Peak Hour Factor	90	90	86	86	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	104	366	13	86	380
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	728	183	0	0	379	0
Stage 1	366	-	-	-	-	-
Stage 2	362	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	358	828	-	-	1176	-
Stage 1	672	-	-	-	-	-
Stage 2	675	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	325	828	-	-	1176	-
Mov Cap-2 Maneuver	325	-	-	-	-	-
Stage 1	672	-	-	-	-	-
Stage 2	612	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.7	0		1.8		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	663	1176	-	
HCM Lane V/C Ratio	-	-	0.188	0.073	-	
HCM Control Delay (s)	-	-	11.7	8.3	0.3	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.7	0.2	-	

Parkside Mixed-Use Development
12: Cliftwood Drive & New Access

future p.m. revised July 2021

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	314	306	30	19	1
Future Vol, veh/h	2	314	306	30	19	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	-5	-	0	-
Peak Hour Factor	96	96	94	94	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	327	326	32	25	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	358	0	-	0	494	163
Stage 1	-	-	-	-	326	-
Stage 2	-	-	-	-	168	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1197	-	-	-	504	853
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	844	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1197	-	-	-	503	853
Mov Cap-2 Maneuver	-	-	-	-	503	-
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	844	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		12.4		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1197	-	-	-	514	
HCM Lane V/C Ratio	0.002	-	-	-	0.052	
HCM Control Delay (s)	8	0	-	-	12.4	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Parkside Mixed-Use Development
1: Sandy Springs Circle & Hammond Drive

future p.m. with mitigation revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	374	65	132	552	139	84	267	86	101	187	99
Future Volume (veh/h)	91	374	65	132	552	139	84	267	86	101	187	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1864	1864	1864	1949	1949	1949
Adj Flow Rate, veh/h	108	445	77	150	627	158	95	303	98	111	205	109
Peak Hour Factor	0.84	0.84	0.84	0.88	0.88	0.88	0.88	0.88	0.88	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	745	143	286	1156	291	529	674	218	435	842	825
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	263	1812	348	880	2812	708	1062	1349	436	728	1685	1651
Grp Volume(v), veh/h	267	0	363	150	396	389	95	0	401	111	205	109
Grp Sat Flow(s),veh/h/ln	783	0	1639	880	1777	1743	1062	0	1786	728	1685	1651
Q Serve(g_s), s	17.9	0.0	16.9	15.7	17.1	17.1	5.7	0.0	14.6	7.9	7.0	3.6
Cycle Q Clear(g_c), s	35.0	0.0	16.9	32.6	17.1	17.1	12.7	0.0	14.6	22.5	7.0	3.6
Prop In Lane	0.40		0.21	1.00		0.41	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	372	0	674	286	731	717	529	0	893	435	842	825
V/C Ratio(X)	0.72	0.00	0.54	0.52	0.54	0.54	0.18	0.00	0.45	0.26	0.24	0.13
Avail Cap(c_a), veh/h	579	0	982	451	1064	1044	529	0	893	435	842	825
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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	0.0	22.5	34.8	22.5	22.6	18.0	0.0	16.3	23.6	14.4	13.5
Incr Delay (d2), s/veh	2.6	0.0	0.7	1.5	0.6	0.6	0.7	0.0	1.6	1.4	0.7	0.3
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	6.2	0.0	6.4	3.4	7.0	6.8	1.5	0.0	6.1	2.0	2.7	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	0.0	23.2	36.3	23.2	23.2	18.7	0.0	17.9	25.0	15.1	13.9
LnGrp LOS	C	A	C	D	C	C	B	A	B	C	B	B
Approach Vol, veh/h		630			935			496			425	
Approach Delay, s/veh		27.5			25.3			18.1			17.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		55.0		46.0		55.0		46.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		50.5		60.5		50.5		60.5				
Max Q Clear Time (g_c+I1), s		16.6		37.0		24.5		34.6				
Green Ext Time (p_c), s		3.1		4.6		2.4		6.3				
Intersection Summary												
HCM 6th Ctrl Delay			23.1									
HCM 6th LOS			C									

Parkside Mixed-Use Development

3: Hammond Exchange East Access/Kroger Access & Hammond Drive

with mitigation revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	545	118	95	556	208	96	40	104	170	22	46
Future Volume (veh/h)	14	545	118	95	556	208	96	40	104	170	22	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	599	130	102	598	224	114	48	124	181	23	49
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.84	0.84	0.84	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	240	1104	239	264	1052	469	278	130	256	564	66	775
Arrive On Green	0.02	0.38	0.38	0.30	0.30	0.30	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1781	2905	629	726	3554	1585	419	265	524	951	135	1585
Grp Volume(v), veh/h	15	366	363	102	598	224	286	0	0	204	0	49
Grp Sat Flow(s),veh/h/ln	1781	1777	1757	726	1777	1585	1209	0	0	1086	0	1585
Q Serve(g_s), s	0.4	11.0	11.1	8.8	9.8	7.9	6.3	0.0	0.0	0.0	0.0	1.1
Cycle Q Clear(g_c), s	0.4	11.0	11.1	14.1	9.8	7.9	16.4	0.0	0.0	10.1	0.0	1.1
Prop In Lane	1.00		0.36	1.00		1.00	0.40		0.43	0.89		1.00
Lane Grp Cap(c), veh/h	240	675	668	264	1052	469	664	0	0	630	0	775
V/C Ratio(X)	0.06	0.54	0.54	0.39	0.57	0.48	0.43	0.00	0.00	0.32	0.00	0.06
Avail Cap(c_a), veh/h	350	972	961	340	1426	636	664	0	0	630	0	775
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	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.9	16.6	16.6	24.4	20.4	19.8	13.8	0.0	0.0	11.5	0.0	9.2
Incr Delay (d2), s/veh	0.1	0.7	0.7	0.9	0.5	0.8	2.0	0.0	0.0	1.4	0.0	0.2
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	0.1	4.1	4.1	1.5	3.8	2.8	3.5	0.0	0.0	2.1	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.0	17.3	17.3	25.3	20.9	20.5	15.8	0.0	0.0	12.8	0.0	9.4
LnGrp LOS	B	B	B	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		744			924			286			253	
Approach Delay, s/veh		17.3			21.3			15.8			12.2	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		38.0		30.5		38.0	5.7	24.8				
Change Period (Y+Rc), s		4.5		4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		33.5		37.5		33.5	5.5	27.5				
Max Q Clear Time (g_c+I1), s		18.4		13.1		12.1	2.4	16.1				
Green Ext Time (p_c), s		1.6		4.7		1.5	0.0	4.2				
Intersection Summary												
HCM 6th Ctrl Delay			18.2									
HCM 6th LOS			B									

Parkside Mixed-Use Development
4: Roswell Road & Hammond Drive

future p.m. with mitigation revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	401	252	441	561	153	298	1393	91	170	1028	109
Future Volume (veh/h)	188	401	252	441	561	153	298	1393	91	170	1028	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	202	431	271	507	645	176	317	1482	97	185	1117	118
Peak Hour Factor	0.93	0.93	0.93	0.87	0.87	0.87	0.94	0.94	0.94	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	500	223	545	716	319	341	1768	115	212	1530	161
Arrive On Green	0.10	0.14	0.14	0.16	0.20	0.20	0.12	0.52	0.52	0.07	0.47	0.47
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	3387	221	1781	3243	342
Grp Volume(v), veh/h	202	431	271	507	645	176	317	774	805	185	611	624
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1777	1831	1781	1777	1809
Q Serve(g_s), s	15.5	19.0	22.5	23.2	28.3	16.0	16.1	59.1	60.0	8.6	44.3	44.5
Cycle Q Clear(g_c), s	15.5	19.0	22.5	23.2	28.3	16.0	16.1	59.1	60.0	8.6	44.3	44.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		0.19
Lane Grp Cap(c), veh/h	234	500	223	545	716	319	341	927	955	212	838	853
V/C Ratio(X)	0.86	0.86	1.22	0.93	0.90	0.55	0.93	0.84	0.84	0.87	0.73	0.73
Avail Cap(c_a), veh/h	234	500	223	551	722	322	450	927	955	265	838	853
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)	0.72	0.72	0.72	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.0	67.2	68.7	66.5	62.3	57.4	35.2	32.4	32.6	33.8	34.0	34.1
Incr Delay (d2), s/veh	20.6	10.9	123.0	22.4	14.4	2.0	16.5	6.2	6.3	21.9	5.5	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	9.4	16.7	11.9	14.2	6.6	8.2	25.9	27.0	4.8	19.8	20.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.6	78.1	191.7	88.9	76.7	59.4	51.7	38.6	38.9	55.6	39.6	39.6
LnGrp LOS	E	E	F	F	E	E	D	D	D	E	D	D
Approach Vol, veh/h		904			1328			1896			1420	
Approach Delay, s/veh		111.4			79.0			40.9			41.7	
Approach LOS		F			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.2	88.0	29.7	27.0	23.3	80.0	20.0	36.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	15.5	78.5	25.5	22.5	28.5	65.5	15.5	32.5				
Max Q Clear Time (g_c+l1), s	10.6	62.0	25.2	24.5	18.1	46.5	17.5	30.3				
Green Ext Time (p_c), s	0.2	9.5	0.1	0.0	0.7	7.6	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay			61.7									
HCM 6th LOS			E									

Parkside Mixed-Use Development
6: Roswell Road & Cliftwood Drive/Carpenter Drive

future p.m. with mitigation revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	46	195	125	40	55	226	1511	22	68	1535	51
Future Volume (veh/h)	139	46	195	125	40	55	226	1511	22	68	1535	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1949	1949	1949	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	165	55	232	164	53	72	235	1574	23	71	1599	53
Peak Hour Factor	0.84	0.84	0.84	0.76	0.76	0.76	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	257	210	286	302	81	111	258	2387	35	222	2197	73
Arrive On Green	0.09	0.11	0.11	0.09	0.11	0.11	0.07	0.67	0.67	0.03	0.63	0.63
Sat Flow, veh/h	1781	1870	1585	1856	749	1017	1781	3585	52	1781	3510	116
Grp Volume(v), veh/h	165	55	232	164	0	125	235	779	818	71	807	845
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1856	0	1766	1781	1777	1861	1781	1777	1849
Q Serve(g_s), s	13.9	4.6	19.1	13.2	0.0	11.5	9.1	44.4	44.5	2.4	53.0	53.5
Cycle Q Clear(g_c), s	13.9	4.6	19.1	13.2	0.0	11.5	9.1	44.4	44.5	2.4	53.0	53.5
Prop In Lane	1.00		1.00	1.00		0.58	1.00		0.03	1.00		0.06
Lane Grp Cap(c), veh/h	257	210	286	302	0	192	258	1183	1239	222	1112	1157
V/C Ratio(X)	0.64	0.26	0.81	0.54	0.00	0.65	0.91	0.66	0.66	0.32	0.73	0.73
Avail Cap(c_a), veh/h	257	210	286	302	0	192	404	1183	1239	271	1112	1157
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)	0.98	0.98	0.98	1.00	0.00	1.00	1.00	1.00	1.00	0.45	0.45	0.45
Uniform Delay (d), s/veh	60.4	69.0	66.9	60.3	0.0	72.7	35.8	16.9	16.9	16.0	21.8	21.9
Incr Delay (d2), s/veh	5.3	0.6	15.6	2.0	0.0	7.5	17.2	2.9	2.8	0.4	1.9	1.9
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	6.7	2.2	10.9	6.4	0.0	5.6	7.5	17.9	18.8	1.0	21.5	22.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	69.6	82.5	62.2	0.0	80.2	53.0	19.8	19.7	16.4	23.7	23.8
LnGrp LOS	E	E	F	E	A	F	D	B	B	B	C	C
Approach Vol, veh/h		452			289			1832			1723	
Approach Delay, s/veh		74.8			70.0			24.0			23.4	
Approach LOS		E			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	117.7	19.4	23.6	16.1	110.9	20.0	23.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	108.5	14.9	19.1	25.5	92.5	15.5	18.5				
Max Q Clear Time (g_c+l1), s	4.4	46.5	15.2	21.1	11.1	55.5	15.9	13.5				
Green Ext Time (p_c), s	0.0	16.4	0.0	0.0	0.5	15.4	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			32.2									
HCM 6th LOS			C									

Parkside Mixed-Use Development
9: Sandy Springs Circle & Cliftwood Drive

future p.m. with mitigation revised July 2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	55	3	45	49	159	6	134	48	150	158	30
Future Volume (veh/h)	20	55	3	45	49	159	6	134	48	150	158	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1949	1949	1949	1870	1870	1870	1909	1909	1909
Adj Flow Rate, veh/h	24	66	4	48	52	169	7	156	56	170	180	34
Peak Hour Factor	0.83	0.83	0.83	0.94	0.94	0.94	0.86	0.86	0.86	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	339	238	202	367	287	244	595	488	175	653	708	134
Arrive On Green	0.03	0.13	0.13	0.05	0.15	0.15	0.01	0.37	0.37	0.09	0.45	0.45
Sat Flow, veh/h	1781	1870	1585	1856	1949	1651	1781	1314	472	1818	1561	295
Grp Volume(v), veh/h	24	66	4	48	52	169	7	0	212	170	0	214
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1856	1949	1651	1781	0	1785	1818	0	1856
Q Serve(g_s), s	0.6	1.6	0.1	1.1	1.2	4.8	0.1	0.0	4.2	2.6	0.0	3.5
Cycle Q Clear(g_c), s	0.6	1.6	0.1	1.1	1.2	4.8	0.1	0.0	4.2	2.6	0.0	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		0.16
Lane Grp Cap(c), veh/h	339	238	202	367	287	244	595	0	664	653	0	841
V/C Ratio(X)	0.07	0.28	0.02	0.13	0.18	0.69	0.01	0.00	0.32	0.26	0.00	0.25
Avail Cap(c_a), veh/h	468	676	573	463	705	597	757	0	664	688	0	841
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.0	19.7	19.0	17.4	18.6	20.2	9.6	0.0	11.2	7.4	0.0	8.4
Incr Delay (d2), s/veh	0.1	0.6	0.0	0.2	0.3	3.5	0.0	0.0	1.3	0.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.7	0.0	0.4	0.5	1.9	0.0	0.0	1.6	0.8	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	20.3	19.0	17.5	18.9	23.7	9.6	0.0	12.4	7.6	0.0	9.1
LnGrp LOS	B	C	B	B	B	C	A	A	B	A	A	A
Approach Vol, veh/h		94			269			219			384	
Approach Delay, s/veh		19.7			21.7			12.3			8.5	
Approach LOS		B			C			B			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	23.0	6.9	10.8	5.0	27.1	5.9	11.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	18.5	5.0	18.0	5.0	19.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.6	6.2	3.1	3.6	2.1	5.5	2.6	6.8				
Green Ext Time (p_c), s	0.0	0.9	0.0	0.2	0.0	0.9	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			14.1									
HCM 6th LOS			B									

Appendix F

Photographs



Photograph 1 – Sandy Springs Circle Facing North at Hammond Drive



Photograph 2 – Hammond Drive Facing West at Hammond Exchange West Access



Photograph 3 – Hammond Drive Facing East at Hammond Exchange East Access



Photograph 4 – Hammond Drive Facing East at Roswell Road



Photograph 5 – Roswell Road Facing North at Parkside Shops Access



Photograph 6 – Cliftwood Drive Facing East at Roswell Road



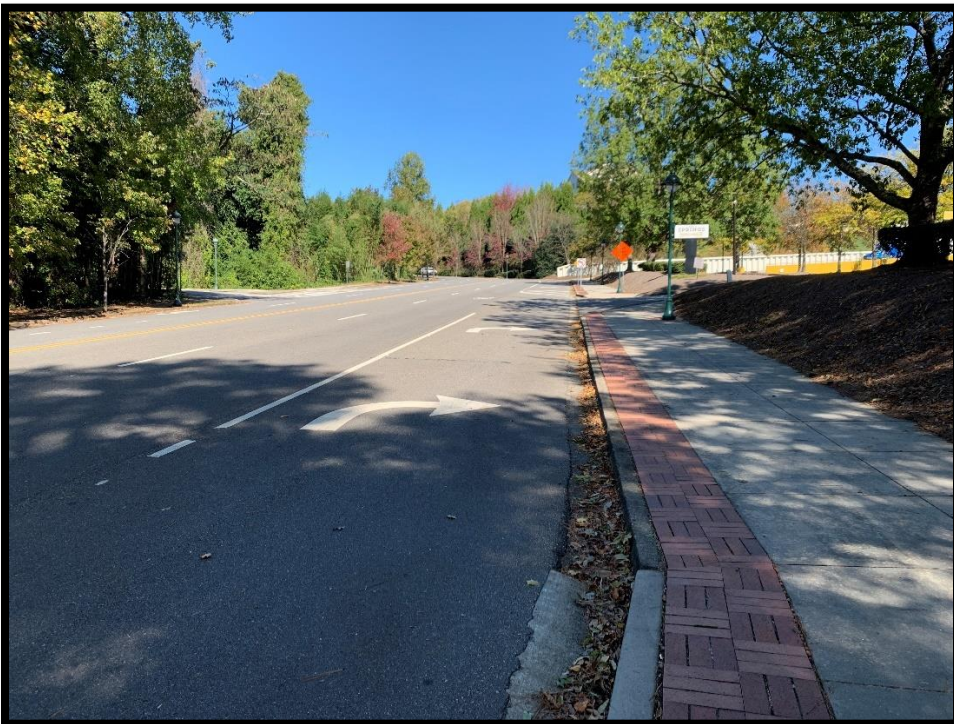
Photograph 7 – Cliftwood Drive Facing West at Parkside Shops East Access



Photograph 8 – Cliftwood Drive Facing West at Parkside Shops West Access



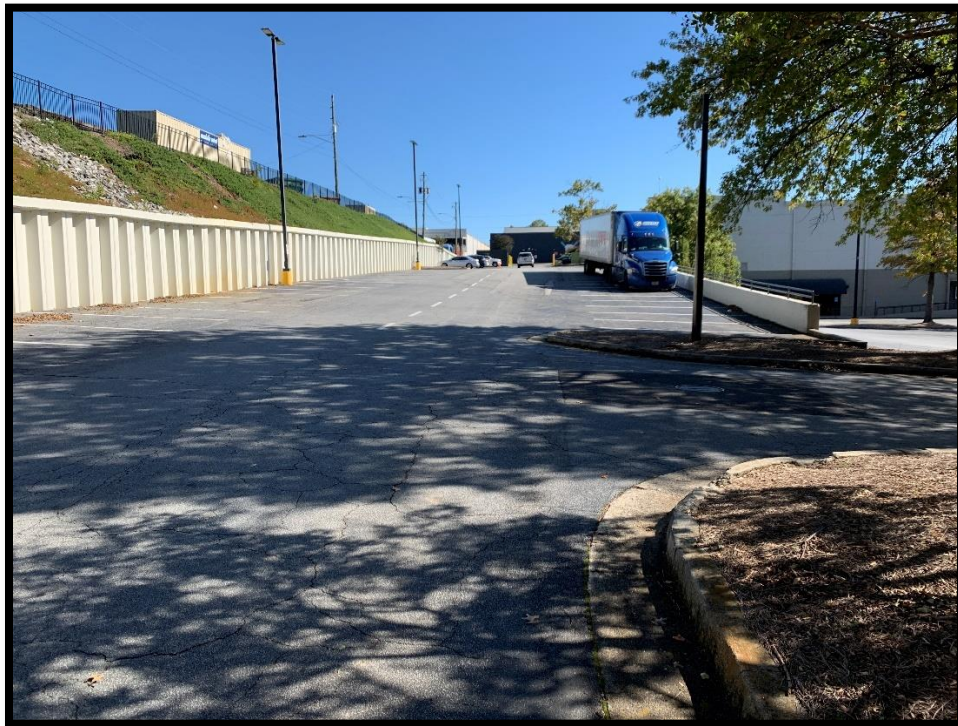
Photograph 9 – Sandy Springs Circle Facing South at Cliftwood Drive



Photograph 10 – Sandy Springs Circle Facing North at Parkside Shops Accesses



Photograph 11 – Sandy Springs Circle Facing South at Parkside Shops Accesses



Photograph 12 – Ramp Connecting West and East Sides of Parkside Shops



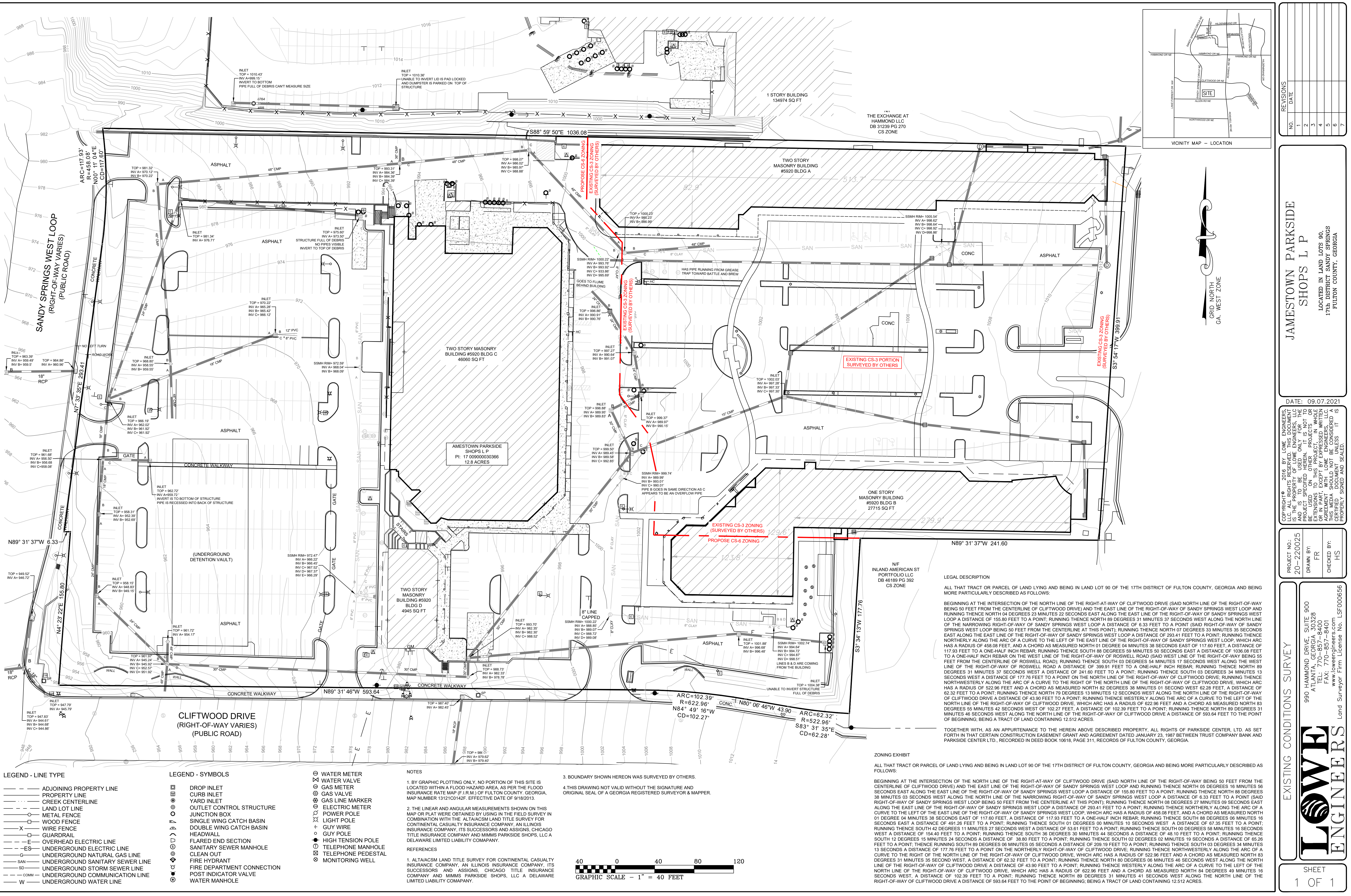
Photograph 13 – Hammond Exchange Parking Lot Incorrect Striping Colors



Photograph 14 – Parkside Shops East Parking Lot Incorrect Striping Colors



Photograph 15 – Parkside Shops West Parking Lot Incorrect Striping Colors



- LEGEND - LINE TYPE

 - ADJOINING PROPERTY LINE
 - PROPERTY LINE
 - CREAK CENTERLINE
 - LAND LOT LINE
 - METAL FENCE
 - WOOD FENCE
 - WIRE FENCE
 - GUARDRAIL
 - OVERHEAD ELECTRIC LINE
 - UNDERGROUND ELECTRIC LINE
 - UNDERGROUND NATURAL GAS LINE
 - UNDERGROUND SANITARY SEWER LINE
 - UNDERGROUND STORM SEWER LINE
 - UNDERGROUND COMMUNICATION LINE
 - UNDERGROUND WATER LINE
- LEGEND - SYMBOLS

 - DROP INLET
 - CURB INLET
 - YARD INLET
 - OUTLET CONTROL STRUCTURE
 - JUNCTION BOX
 - SINGLE WING CATCH BASIN
 - DOUBLE WING CATCH BASIN
 - HEADWALL
 - FLARED END SECTION
 - SANITARY SEWER MANHOLE
 - CLEAN OUT
 - FIRE HYDRANT
 - FIRE DEPARTMENT CONNECTION
 - POST INDICATOR VALVE
 - WATER MANHOLE
- WATER METER

 - WATER VALVE
 - GAS METER
 - GAS VALVE
 - GAS LINE MARKER
 - ELECTRIC METER
 - POWER POLE
 - LIGHT POLE
 - GUY WIRE
 - GUY POLE
 - HIGH TENSION POLE
 - TELEPHONE MANHOLE
 - TELEPHONE PEDESTAL
 - MONITORING WELL

NOTES

1. BY GRAPHIC PLOTTING ONLY, NO PORTION OF THIS SITE IS LOCATED WITHIN A FLOOD HAZARD AREA, AS PER THE FLOOD INSURANCE RATE MAP F.I.R.M. OF FULTON COUNTY, GEORGIA, MAP NUMBER 13121C0142F, EFFECTIVE DATE OF 9/18/2013.

2. THE LINEAR AND ANGULAR MEASUREMENTS SHOWN ON THIS MAP OR PLAT WERE OBTAINED BY USING IN THE FIELD SURVEY IN COMBINATION WITH THE ALTA/ACSM LAND TITLE SURVEY FOR CONTINENTAL CASUALTY INSURANCE COMPANY, AN ILLINOIS INSURANCE COMPANY, ITS SUCCESSORS AND ASSIGNS, CHICAGO TITLE INSURANCE COMPANY AND MIMMS PARKSIDE SHOPS, LLC A DELAWARE LIMITED LIABILITY COMPANY.

REFERENCES

1. ALTA/ACSM LAND TITLE SURVEY FOR CONTINENTAL CASUALTY INSURANCE COMPANY, AN ILLINOIS INSURANCE COMPANY, ITS SUCCESSORS AND ASSIGNS, CHICAGO TITLE INSURANCE COMPANY AND MIMMS PARKSIDE SHOPS, LLC A DELAWARE LIMITED LIABILITY COMPANY.

3. BOUNDARY SHOWN HEREON WAS SURVEYED BY OTHERS.

4. THIS DRAWING NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL SEAL OF A GEORGIA REGISTERED SURVEYOR & MAPPER.

LEGAL DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LAND LOT 90 OF THE 17TH DISTRICT OF FULTON COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE (SAID NORTH LINE OF THE RIGHT-OF-WAY BEING 50 FEET FROM THE CENTERLINE OF CLIFTWOOD DRIVE) AND THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP AND RUNNING THENCE NORTH 04 DEGREES 23 MINUTES 22 SECONDS EAST ALONG THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP A DISTANCE OF 155.80 FEET TO A POINT; RUNNING THENCE NORTH 89 DEGREES 31 MINUTES 37 SECONDS WEST ALONG THE NORTH LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP A DISTANCE OF 6.33 FEET TO A POINT (SAID RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP BEING 50 FEET FROM THE CENTERLINE AT THIS POINT); RUNNING THENCE NORTH 07 DEGREES 53 MINUTES 35 SECONDS EAST ALONG THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP A DISTANCE OF 293.41 FEET TO A POINT; RUNNING THENCE NORTHERLY ALONG THE ARC OF A CURVE TO THE LEFT OF THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP, WHICH ARC HAS A RADIUS OF 458.08 FEET, AND A CHORD AS MEASURED NORTH 04 DEGREES 23 MINUTES 22 SECONDS EAST OF 117.60 FEET, A DISTANCE OF 117.93 FEET TO A ONE-HALF INCH REBAR, RUNNING THENCE SOUTH 88 DEGREES 59 MINUTES 50 SECONDS EAST A DISTANCE OF 1036.08 FEET TO A ONE-HALF INCH REBAR ON THE WEST LINE OF THE RIGHT-OF-WAY OF ROSWELL ROAD (SAID WEST LINE OF THE RIGHT-OF-WAY BEING 55 FEET FROM THE CENTERLINE OF ROSWELL ROAD), RUNNING THENCE SOUTH 03 DEGREES 54 MINUTES 17 SECONDS WEST ALONG THE WEST LINE OF THE RIGHT-OF-WAY OF ROSWELL ROAD A DISTANCE OF 399.91 FEET TO A ONE-HALF INCH REBAR, RUNNING THENCE NORTH 89 DEGREES 31 MINUTES 37 SECONDS WEST A DISTANCE OF 241.60 FEET TO A POINT; RUNNING THENCE SOUTH 03 DEGREES 34 MINUTES 13 SECONDS EAST A DISTANCE OF 177.76 FEET TO A POINT ON THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE; RUNNING THENCE NORTHWESTERLY ALONG THE ARC OF A CURVE TO THE RIGHT OF THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE, WHICH ARC HAS A RADIUS OF 522.96 FEET AND A CHORD AS MEASURED NORTH 82 DEGREES 38 MINUTES 01 SECOND WEST 62.28 FEET, A DISTANCE OF 62.32 FEET TO A POINT; RUNNING THENCE NORTH 79 DEGREES 13 MINUTES 12 SECONDS WEST ALONG THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE A DISTANCE OF 43.90 FEET TO A POINT; RUNNING THENCE WESTERLY ALONG THE ARC OF A CURVE TO THE LEFT OF THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE, WHICH ARC HAS A RADIUS OF 622.96 FEET AND A CHORD AS MEASURED NORTH 83 DEGREES 31 MINUTES 35 SECONDS WEST OF 102.27 FEET, A DISTANCE OF 102.39 FEET TO A POINT; RUNNING THENCE NORTH 89 DEGREES 31 MINUTES 46 SECONDS WEST ALONG THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE A DISTANCE OF 593.84 FEET TO THE POINT OF BEGINNING, BEING A TRACT OF LAND CONTAINING 12.512 ACRES.

TOGETHER WITH, AS AN APPURTENANCE TO THE HEREIN ABOVE DESCRIBED PROPERTY, ALL RIGHTS OF PARKSIDE CENTER, LTD. AS SET FORTH IN THAT CERTAIN CONSTRUCTION EASEMENT GRANT AND AGREEMENT DATED JANUARY 23, 1987 BETWEEN TRUST COMPANY BANK AND PARKSIDE CENTER LTD., RECORDED IN DEED BOOK 10618, PAGE 311, RECORDS OF FULTON COUNTY, GEORGIA.

ZONING EXHIBIT

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LAND LOT 90 OF THE 17TH DISTRICT OF FULTON COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE (SAID NORTH LINE OF THE RIGHT-OF-WAY BEING 50 FEET FROM THE CENTERLINE OF CLIFTWOOD DRIVE) AND THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP AND RUNNING THENCE NORTH 04 DEGREES 23 MINUTES 22 SECONDS EAST ALONG THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP A DISTANCE OF 155.80 FEET TO A POINT; RUNNING THENCE NORTH 88 DEGREES 38 MINUTES 03 SECONDS WEST ALONG THE NORTH LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP A DISTANCE OF 6.33 FEET TO A POINT (SAID RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP BEING 50 FEET FROM THE CENTERLINE AT THIS POINT); RUNNING THENCE NORTH 08 DEGREES 27 MINUTES 09 SECONDS EAST ALONG THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP A DISTANCE OF 293.41 FEET TO A POINT; RUNNING THENCE NORTHERLY ALONG THE ARC OF A CURVE TO THE LEFT OF THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP, WHICH ARC HAS A RADIUS OF 458.08 FEET, AND A CHORD AS MEASURED NORTH 04 DEGREES 23 MINUTES 22 SECONDS EAST OF 117.60 FEET, A DISTANCE OF 117.93 FEET TO A ONE-HALF INCH REBAR; RUNNING THENCE SOUTH 88 DEGREES 59 MINUTES 50 SECONDS EAST A DISTANCE OF 1036.08 FEET TO A ONE-HALF INCH REBAR ON THE WEST LINE OF THE RIGHT-OF-WAY OF ROSWELL ROAD (SAID WEST LINE OF THE RIGHT-OF-WAY BEING 55 FEET FROM THE CENTERLINE OF ROSWELL ROAD), RUNNING THENCE SOUTH 03 DEGREES 54 MINUTES 17 SECONDS WEST ALONG THE WEST LINE OF THE RIGHT-OF-WAY OF ROSWELL ROAD A DISTANCE OF 399.91 FEET TO A ONE-HALF INCH REBAR, RUNNING THENCE NORTH 89 DEGREES 31 MINUTES 37 SECONDS WEST A DISTANCE OF 241.60 FEET TO A POINT; RUNNING THENCE SOUTH 03 DEGREES 34 MINUTES 13 SECONDS EAST A DISTANCE OF 177.76 FEET TO A POINT ON THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE; RUNNING THENCE NORTHWESTERLY ALONG THE ARC OF A CURVE TO THE RIGHT OF THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE, WHICH ARC HAS A RADIUS OF 522.96 FEET AND A CHORD AS MEASURED NORTH 82 DEGREES 38 MINUTES 01 SECOND WEST 62.28 FEET, A DISTANCE OF 62.32 FEET TO A POINT; RUNNING THENCE NORTH 79 DEGREES 13 MINUTES 12 SECONDS WEST ALONG THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE A DISTANCE OF 43.90 FEET TO A POINT; RUNNING THENCE WESTERLY ALONG THE ARC OF A CURVE TO THE LEFT OF THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE, WHICH ARC HAS A RADIUS OF 622.96 FEET AND A CHORD AS MEASURED NORTH 83 DEGREES 31 MINUTES 35 SECONDS WEST OF 102.27 FEET, A DISTANCE OF 102.39 FEET TO A POINT; RUNNING THENCE NORTH 89 DEGREES 31 MINUTES 46 SECONDS WEST ALONG THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE A DISTANCE OF 593.84 FEET TO THE POINT OF BEGINNING, BEING A TRACT OF LAND CONTAINING 12.512 ACRES.

GRAPHIC SCALE - 1" = 40 FEET

VICINITY MAP - LOCATION

REVISIONS	
NO.	DATE
1	
2	
3	
4	
5	
6	
7	

JAMESTOWN PARKSIDE SHOPS L P

LOCATED IN LAND LOTS 90, 17TH DISTRICT SANDY SPRINGS FULTON COUNTY, GEORGIA

DATE: 09.07.2021

PROJECT NO: 20-220025

DRAWN BY: FR

CHECKED BY: HS

EXISTING CONDITIONS SURVEY

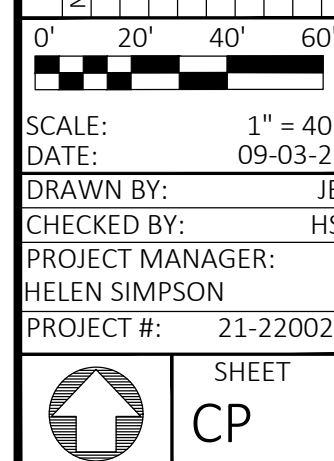
990 HAMMOND DRIVE, SUITE 900
ATLANTA, GEORGIA 30328
TEL: 770-857-8401
www.lowengineers.com

LOW ENGINEERS

Land Surveyor Firm License No. LSP000656

SHEET 1 OF 1

NOT ISSUED FOR CONSTRUCTION



GEORGIA811
Utilities Protection Center, Inc.

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

Concepts shown here are conceptual only and subject to refinement

COMMERCIAL LEASE SPACES

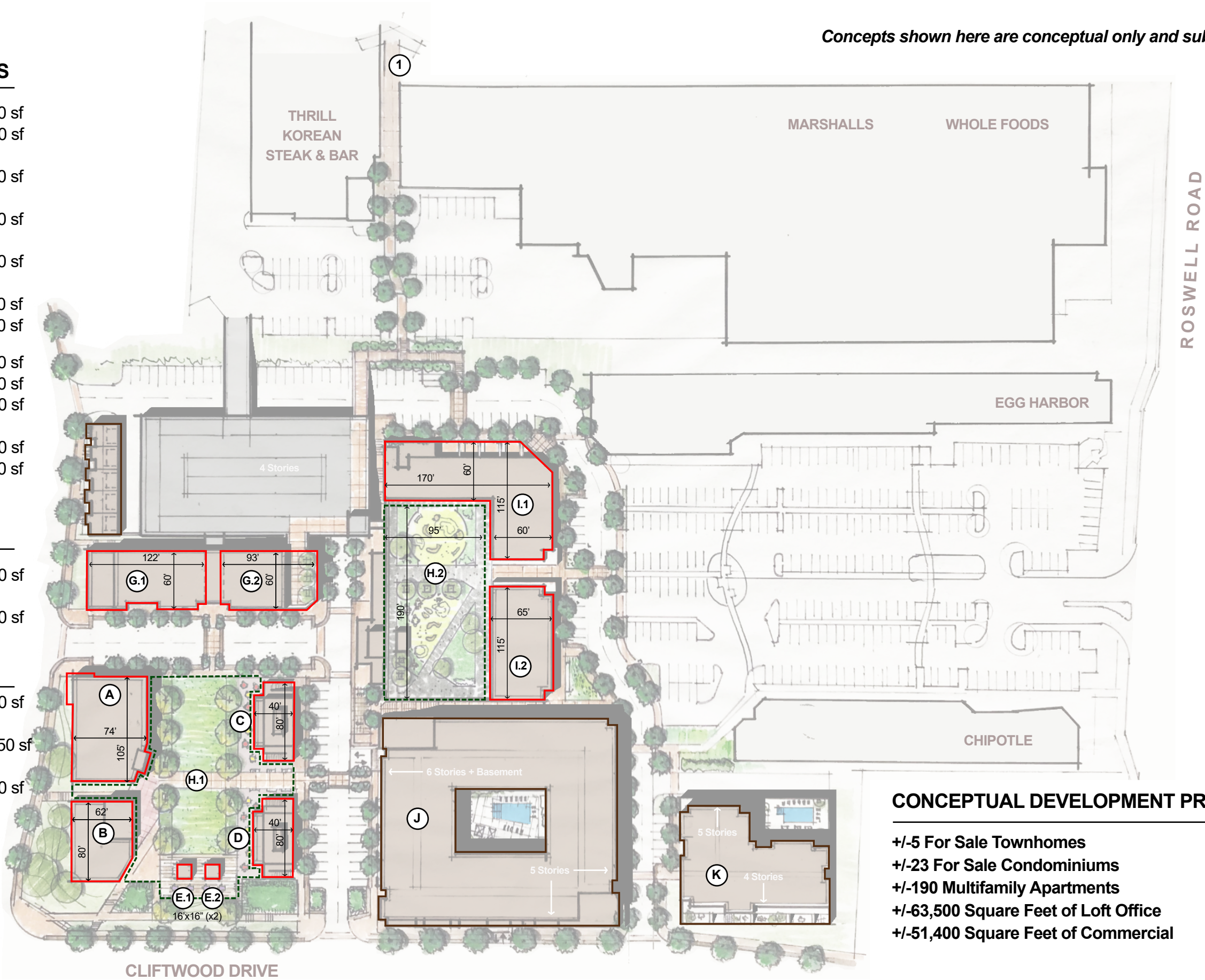
- (A) Ground Floor Commercial: 7,600 sf
2 Upper Floors Office: 15,200 sf
- (B) Ground Floor Commercial: 4,800 sf
- (C) Ground Floor Commercial: 3,000 sf
- (D) Ground Floor Commercial: 3,000 sf
- (E.1) Pavilion Commercial: 250 sf
(E.2) Pavilion Commercial: 250 sf
- (G.1) Ground Floor Commercial: 7,400 sf
(G.2) Ground Floor Commercial: 5,600 sf
4 Upper Floors Office: 48,300 sf
- (I.1) Commercial Rehab: 12,600 sf
(I.2) Commercial Rehab: 6,900 sf

COMMUNITY OPEN SPACES

- (H.1) Lower Open Space: 25,400 sf
- (H.2) Upper Open Space: 18,050 sf

RESIDENTIAL

- (F) For Sale Townhomes: 10,900 sf
- (J) Multifamily Apartments: 211,850 sf
- (K) For Sale Condominiums: 51,720 sf



CONCEPTUAL DEVELOPMENT PROGRAM

- +/-5 For Sale Townhomes
- +/-23 For Sale Condominiums
- +/-190 Multifamily Apartments
- +/-63,500 Square Feet of Loft Office
- +/-51,400 Square Feet of Commercial

BUILDING AREA

Jamestown - Parkside Redevelopment

09/03/2021
LAS #11120-00

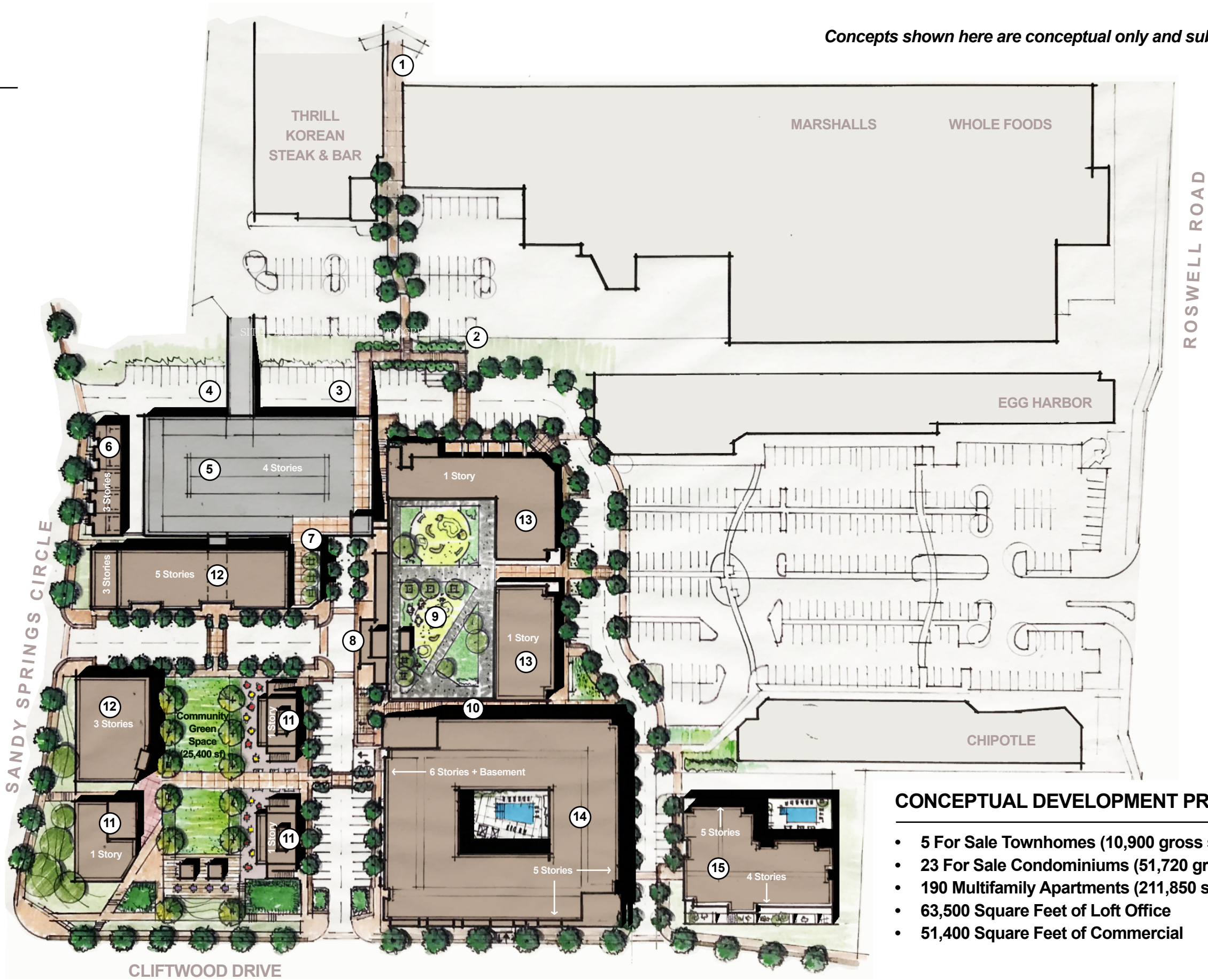


LORD
AECK
SARGENT

Concepts shown here are conceptual only and subject to refinement

FEATURES

- ① Pedestrian Connection to Hammond Exchange and City Walk
- ② Stairs to Connect Hammond Exchange to Parkside
- ③ Pedestrian Bridge
- ④ Vehicular Connection To Connect Parking Areas
- ⑤ Parking Deck: +/-410 Spaces
- ⑥ For Sale Townhouses (Parking in rear garages)
- ⑦ Rooftop Amenity Deck
- ⑧ New Theatre Entry
- ⑨ Rooftop Community Green Space/Dog Park (at level of existing parking lot) - 18,050 sf
- ⑩ Pedestrian Passage With Stairs Down to Town Green Level
- ⑪ Small Scale Commercial Pavilions
- ⑫ Loft Office Over Storefront Commercial
- ⑬ Renovated Commercial (Smaller Footprint)
- ⑭ Multifamily Apartments (Underground Parking)
- ⑮ Condominiums (Underground Parking)



CONCEPTUAL DEVELOPMENT PROGRAM

- 5 For Sale Townhomes (10,900 gross square feet)
- 23 For Sale Condominiums (51,720 gross square feet)
- 190 Multifamily Apartments (211,850 square feet)
- 63,500 Square Feet of Loft Office
- 51,400 Square Feet of Commercial

SITE PLAN

Jamestown - Parkside Redevelopment

09/03/2021
LAS #11120-00



LORD
AECK
SARGENT

LEGAL DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LAND LOT 90 OF THE 17TH DISTRICT OF FULTON COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE (SAID NORTH LINE OF THE RIGHT-OF-WAY BEING 50 FEET FROM THE CENTERLINE OF CLIFTWOOD DRIVE) AND THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP AND RUNNING THENCE NORTH 04 DEGREES 23 MINUTES 22 SECONDS EAST ALONG THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP A DISTANCE OF 155.80 FEET TO A POINT; RUNNING THENCE NORTH 89 DEGREES 31 MINUTES 37 SECONDS WEST ALONG THE NORTH LINE OF THE NARROWING RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP A DISTANCE OF 6.33 FEET TO A POINT (SAID RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP BEING 50 FEET FROM THE CENTERLINE AT THIS POINT); RUNNING THENCE NORTH 07 DEGREES 33 MINUTES 35 SECONDS EAST ALONG THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP A DISTANCE OF 293.41 FEET TO A POINT; RUNNING THENCE NORTHERLY ALONG THE ARC OF A CURVE TO THE LEFT OF THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP, WHICH ARC HAS A RADIUS OF 458.08 FEET, AND A CHORD AS MEASURED NORTH 01 DEGREE 04 MINUTES 38 SECONDS EAST OF 117.60 FEET, A DISTANCE OF 117.93 FEET TO A ONE-HALF INCH REBAR; RUNNING THENCE SOUTH 88 DEGREES 59 MINUTES 50 SECONDS EAST A DISTANCE OF 1036.08 FEET TO A ONE-HALF INCH REBAR ON THE WEST LINE OF THE RIGHT-OF-WAY OF ROSWELL ROAD (SAID WEST LINE OF THE RIGHT-OF-WAY BEING 55 FEET FROM THE CENTERLINE OF ROSWELL ROAD); RUNNING THENCE SOUTH 03 DEGREES 54 MINUTES 17 SECONDS WEST ALONG THE WEST LINE OF THE RIGHT-OF-WAY OF ROSWELL ROAD A DISTANCE OF 399.91 FEET TO A ONE-HALF INCH REBAR; RUNNING THENCE NORTH 89 DEGREES 31 MINUTES 37 SECONDS WEST A DISTANCE OF 241.60 FEET TO A POINT; RUNNING THENCE SOUTH 03 DEGREES 34 MINUTES 13 SECONDS WEST A DISTANCE OF 177.76 FEET TO A POINT ON THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE; RUNNING THENCE NORTHWESTERLY ALONG THE ARC OF A CURVE TO THE RIGHT OF THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE, WHICH ARC HAS A RADIUS OF 522.96 FEET AND A CHORD AS MEASURED NORTH 82 DEGREES 38 MINUTES 01 SECOND WEST 62.28 FEET, A DISTANCE OF 62.32 FEET TO A POINT; RUNNING THENCE NORTH 79 DEGREES 13 MINUTES 12 SECONDS WEST ALONG THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE A DISTANCE OF 43.90 FEET TO A POINT; RUNNING THENCE WESTERLY ALONG THE ARC OF A CURVE TO THE LEFT OF THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE, WHICH ARC HAS A RADIUS OF 622.96 FEET AND A CHORD AS MEASURED NORTH 83 DEGREES 55 MINUTES 42 SECONDS WEST OF 102.27 FEET, A DISTANCE OF 102.39 FEET TO A POINT; RUNNING THENCE NORTH 89 DEGREES 31 MINUTES 46 SECONDS WEST ALONG THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE A DISTANCE OF 593.64 FEET TO THE POINT OF BEGINNING; BEING A TRACT OF LAND CONTAINING 12.512 ACRES.

TOGETHER WITH, AS AN APPURTENANCE TO THE HEREIN ABOVE-DESCRIBED PROPERTY, ALL RIGHTS OF PARKSIDE CENTER, LTD. AS SET FORTH IN THAT CERTAIN CONSTRUCTION EASEMENT GRANT AND AGREEMENT DATED JANUARY 23, 1987 BETWEEN TRUST COMPANY BANK AND PARKSIDE CENTER LTD., RECORDED IN DEED BOOK 10618, PAGE 311, RECORDS OF FULTON COUNTY, GEORGIA.

ZONING EXHIBIT

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LAND LOT 90 OF THE 17TH DISTRICT OF FULTON COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE NORTH LINE OF THE RIGHT-AT-WAY OF CLIFTWOOD DRIVE (SAID NORTH LINE OF THE RIGHT-OF-WAY BEING 50 FEET FROM THE CENTERLINE OF CLIFTWOOD DRIVE) AND THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP AND RUNNING THENCE NORTH 05 DEGREES 16 MINUTES 56 SECONDS EAST ALONG THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP A DISTANCE OF 155.80 FEET TO A POINT; RUNNING THENCE NORTH 88 DEGREES 38 MINUTES 03 SECONDS WEST ALONG THE NORTH LINE OF THE NARROWING RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP A DISTANCE OF 6.33 FEET TO A POINT (SAID RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP BEING 50 FEET FROM THE CENTERLINE AT THIS POINT); RUNNING THENCE NORTH 08 DEGREES 27 MINUTES 09 SECONDS EAST ALONG THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP A DISTANCE OF 293.41 FEET TO A POINT; RUNNING THENCE NORTHERLY ALONG THE ARC OF A CURVE TO THE LEFT OF THE EAST LINE OF THE RIGHT-OF-WAY OF SANDY SPRINGS WEST LOOP, WHICH ARC HAS A RADIUS OF 458.08 FEET, AND A CHORD AS MEASURED NORTH 01 DEGREE 04 MINUTES 38 SECONDS EAST OF 117.60 FEET, A DISTANCE OF 117.93 FEET TO A ONE-HALF INCH REBAR; RUNNING THENCE SOUTH 88 DEGREES 06 MINUTES 16 SECONDS EAST A DISTANCE OF 491.26 FEET TO A POINT; RUNNING THENCE SOUTH 01 DEGREES 00 MINUTES 10 SECONDS WEST A DISTANCE OF 67.35 FEET TO A POINT; RUNNING THENCE SOUTH 42 DEGREES 11 MINUTES 27 SECONDS WEST A DISTANCE OF 53.61 FEET TO A POINT; RUNNING THENCE SOUTH 00 DEGREES 58 MINUTES 16 SECONDS WEST A DISTANCE OF 154.40 FEET TO A POINT; RUNNING THENCE SOUTH 36 DEGREES 30 MINUTES 44 SECONDS A DISTANCE OF 48.10 FEET TO A POINT; RUNNING THENCE SOUTH 12 DEGREES 15 MINUTES 24 SECONDS A DISTANCE OF 38.80 FEET TO A POINT; RUNNING THENCE SOUTH 02 DEGREES 02 MINUTES 19 SECONDS A DISTANCE OF 65.26 FEET TO A POINT; THENCE RUNNING SOUTH 89 DEGREES 06 MINUTES 05 SECONDS A DISTANCE OF 209.19 FEET TO A POINT; RUNNING THENCE SOUTH 03 DEGREES 34 MINUTES 13 SECONDS A DISTANCE OF 177.76 FEET TO A POINT ON THE NORTHERLY RIGHT-OF-WAY OF CLIFTWOOD DRIVE; RUNNING THENCE NORTHWESTERLY ALONG THE ARC OF A CURVE TO THE RIGHT OF THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE, WHICH ARC HAS A RADIUS OF 522.96 FEET AND A CHORD AS MEASURED NORTH 83 DEGREES 31 MINUTES 35 SECOND WEST, A DISTANCE OF 62.32 FEET TO A POINT; RUNNING THENCE NORTH 80 DEGREES 06 MINUTES 46 SECONDS WEST ALONG THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE A DISTANCE OF 43.90 FEET TO A POINT; RUNNING THENCE WESTERLY ALONG THE ARC OF A CURVE TO THE LEFT OF THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE, WHICH ARC HAS A RADIUS OF 622.96 FEET AND A CHORD AS MEASURED NORTH 84 DEGREES 49 MINUTES 16 SECONDS WEST, A DISTANCE OF 102.39 FEET TO A POINT; RUNNING THENCE NORTH 89 DEGREES 31 MINUTES 41 SECONDS WEST ALONG THE NORTH LINE OF THE RIGHT-OF-WAY OF CLIFTWOOD DRIVE A DISTANCE OF 593.64 FEET TO THE POINT OF BEGINNING; BEING A TRACT OF LAND CONTAINING 7.95 ACRES.

Summary

Parkside CM1 Meeting Notes

A. Virtual Attendees

- a. Michelle Thompson
- b. Jamie Weber
- c. Melissa
- d. Amy Wenk
- e. Lilly
- f. Bhall
- g. Gerard
- h. PCap
- i. Andrea
- j. Milic
- k. Lyndsey Parker

B. Notes

- a. Intro
 - i. Requesting change from CS-3 to CS-6 – this will only affect the height limit of the property
 - ii. Many sites around already have CS-6
- b. About Jamestown
 - i. Atlanta based Real Estate Investment Manager with multiple projects around ATL
 - ii. Purchased SNDY in 2018 because we loved the area and the direction it was going
- c. Site Plan
 - i. Bob lives a mile away and was instrumental in creating the layout site plan
 - ii. Goal was to hide parking deck behind topography and development
 - iii. Put townhomes on one side of parking deck with access to the street
 - iv. Loft office and retail also hiding parking deck with entrance to town green from the middle of the building
 - v. Cinema will be staying with entrance moved slightly more towards the middle of the center
 - vi. Multifamily and condo building will have parking underneath and underground
 - vii. Question: Is the upper level of the center the same grade as the parking lot?
 - 1. No, this is the roof of the theatre
 - 2. Followed up asking if that is Tuesday morning? Yes it is
 - viii. Question: Is the Italian restaurant going to still be open?
 - 1. They will need to be relocated and we are in talks on keeping them in place
 - ix. Question: Can anyone use the dog park or only resident?
 - 1. View it as a service so will be open to everyone
 - x. Question: If you're coming down Roswell rd is there a way to enter or do you need to go around?
 - 1. Yes, multiple entrances to parking deck from Roswell Rd but will need to go through center

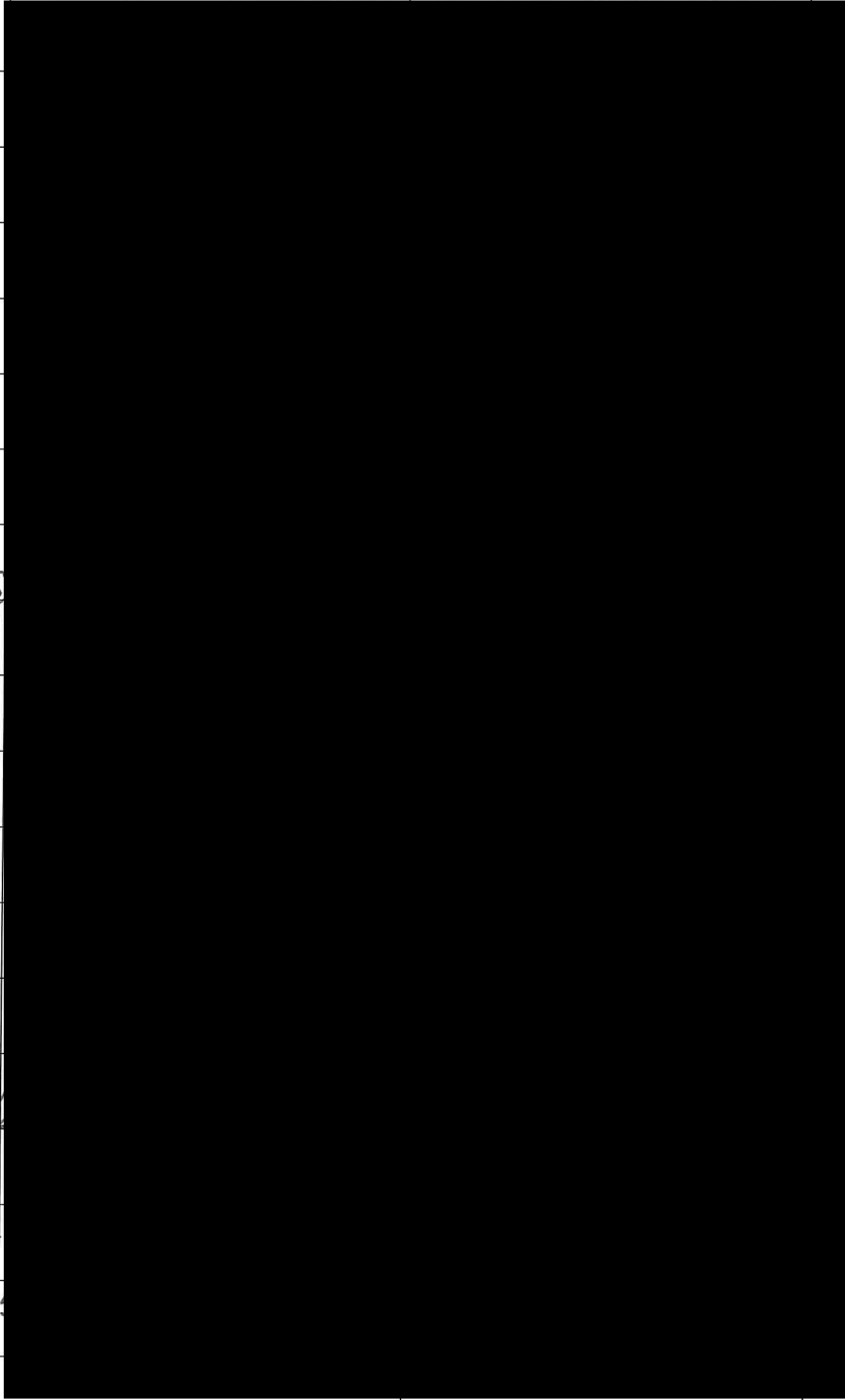
- xi. Question: Why leave the rest of the shopping center? Pksd and Hmmd
 - 1. The back parking lot is underutilized so that is where the opportunity is at the moment and see this as Phase 1 with a potential awhile in the future?
- xii. Question: Is parking free?
 - 1. Yes it is not standard in Sandy Springs
- xiii. Is podium parking just for residents?
 - 1. Yes
- xiv. Is the parking deck for residents?
 - 1. No
- xv. How long will the process take?
 - 1. Design will take 6 months, from there try and keep theatre open
- xvi. Can you share apartment type? class, bd rms, rents?
 - 1. Very early stages – but anticipated 1-2 bdrms
- xvii. Price of condos?
 - 1. Not sure yet – very early in process
- xviii. Will Chapman's be moved?
 - 1. Same answer as Ill Galio
- xix. Can you provide more details on apartments? There are a number of apartment buildings nearby.
 - 1. There are 190 units with avg SF of 900 SF but subject to change
- xx. Can you give the number of parking spaces per bdrm for each apt and condo/townhomes?
 - 1. Aim for 1 space per bed
- xxi. How high is parking deck?
 - 1. It is no higher than any buildings connected to. Will be same level as Korean steak bar
- xxii. We're removing 55k in retail and replacing with 51k in retail
- d. Bird's eye view SW Corner
 - i. Goal to create more connectivity and a destination that offered more opportunities
 - ii. Question: Where is Cliftwood and Sandy Springs Circle on relation to the view?
 - 1. View is from corner of the intersection
 - iii. Are any spaces capable of hosting a night club?
 - 1. That isn't in our vision and we don't think community wants
 - iv. Will there be shops and restaurants?
 - 1. There will be both along with health & wellness and medical
- e. View from SS circle towards Springs Cinema
 - i. Big fans of the theatre – invested a lot of money in it and want to make sure they are a focal point of the site
- f. Community Greenspace Engagement
 - i. Want to have people gather and use the space as they seem fit
- g. View of Springs Cinema Rooftop with Greenspace
 - i. Everyone we've brought the plan up to has said we need a dog park

C. Questions

- a. How many additional car trips will this cause?
 - i. Have done a traffic study but do not know the number off the top of our head
- b. Will local neighborhood get rezoned to CS-6 also?
 - i. Not positioned to answer that as we only control what's going on our site
- c. How does this compare to City Springs?
 - i. We think it's complimentary – programming will be different but want to help contribute to the overall community
- d. Do you think the level of quality will be same as City Springs?
 - i. City Springs is a high quality product and this will be as well
- e. Is there going to be any restrictions of type of restaurants?
 - i. No restriction of restaurant space based on food type etc by the city
- f. What is the size of the commercial pavilions?
 - i. These will be around 3k sf each with one at 4800 sf
- g. Do you anticipate new traffic lights at the entrances, particularly the main on Sandy Springs Circle?
 - i. No, already close to other lights, not needed
- h. Will concerts / outdoor movies be anticipated on the greens? If so until what time?
 - i. Not planning concerts as that's more for City Springs – outdoor movies could be an option
 - ii. All hypothetical – no look into timing as of right now
- i. What's the approval process for this project?
 - i. We are at step 1, still need to submit application, CM2, planning meeting, city council
- j. How do we protect security?
 - i. Will expand cameras already installed
 - ii. All lighting comes on when sun goes down and turns off in the morning
- k. Are we considering extended connections to planned paths and greenways?
 - i. Yes to sandy springs circle and one that goes by Hammond will be more difficult
 - 1. Opportunity to eventually connect Hammond through Korean BBQ walkway at HMMD
- l. Is HMMD exchange that used to have Boston market and gold shop?
 - i. Different property - HMMD is where whole foods is
- m. Will no traffic lights being installed create issues? Roswell Rd already has a lot of traffic all the time. I am concerned about adding to traffic that is already not good.
 - i. Sandy Springs Circle & Cliftwood already are underutilized as 2 lane roads so not worried about it
- n. Can we have deceleration lanes into the shopping center?
 - i. Good potential to have them and that will be worked with the city
 - ii. These are right turn and left turn lane only lanes
- o. Where will the dumpsters be located on the property?
 - i. Will need to be creative and might need to put inside some buildings or just outside and covered almost like a little garage a part of the building

- p. What is the lease rollover schedule and will there be any impact on existing tenants on upper part of Parkside?
 - i. It's staggered with some up in a year and some further down the road. The configuration will be relatively the same as we see in the future
 - ii. Not looking at that to make the deal work
- q. Will all the construction activity be self-contained on the property or lead to closures around the site? And to confirm, you are anticipating 2 years from start to finish?
 - i. Site is large enough that construction will be self-contained on site with parking deck starting first most likely
 - ii. Hoping for 2 years start to finish after design and permit is finished so looking like end of 2024
- r. What's our track record of being on schedule?
 - i. Not great right now just cause of costs and pandemic but normally on time and on budget
- s. Is there a requirement to have affordable housing?
 - i. No

Case RZ21-0003 – Community Meeting I
 August 26, 2021 at 6:00 PM
 The Springs Cinema & Taphouse, 5920 Roswell Rd #C103

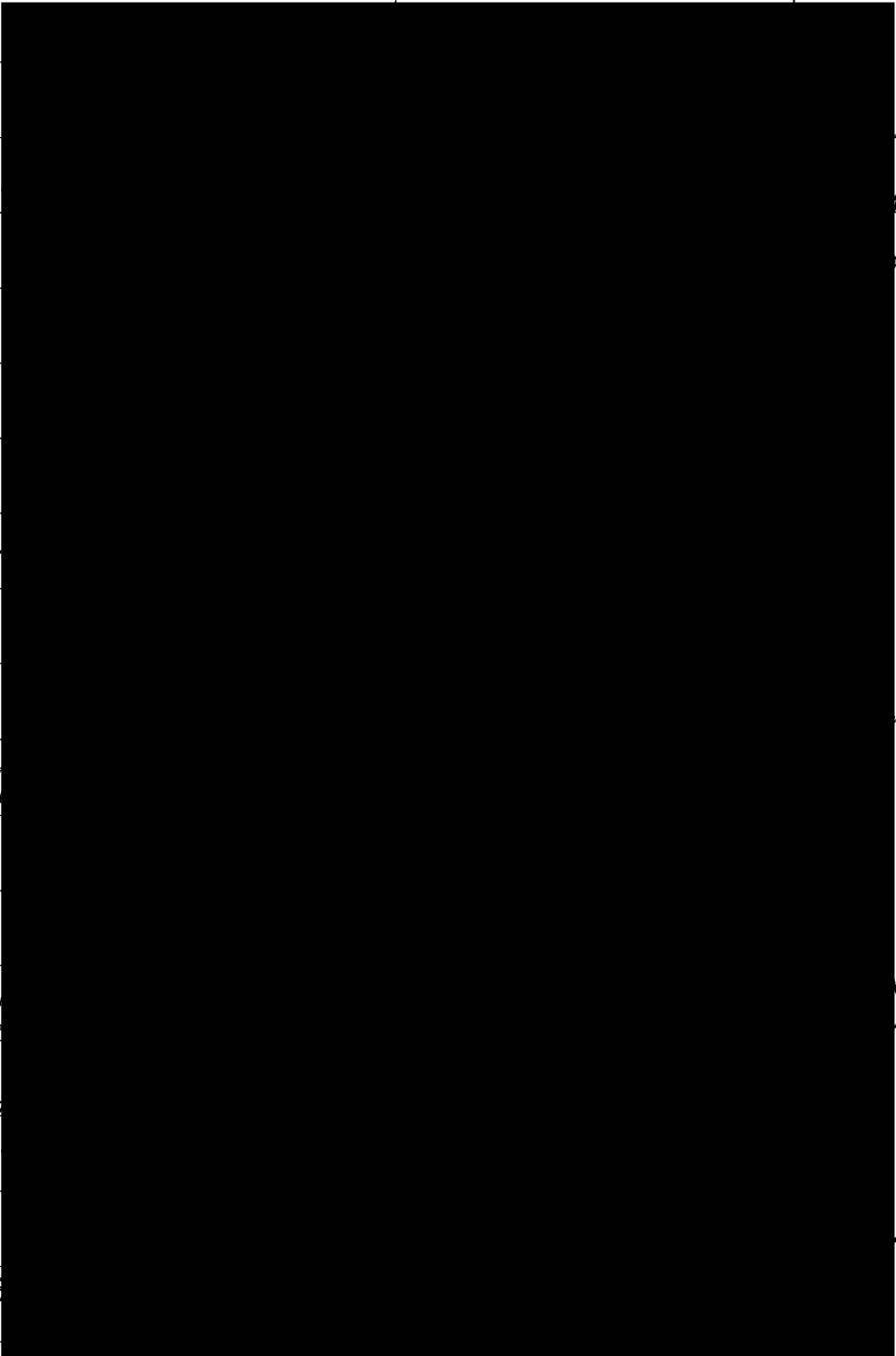
Name	Address	Email Address
PEPE HENBRICKS		
Eric Hines		
BOB BEGLE		
Bettie Gebara		
Kelly Smith		
Andrea Sampson		
Reed Van Hooser		
Michele McIntosh-Ros		
RONRA SMITH		
Travis Riderbaugh		
Sarah Sanderson		
Justin Freeman		
Shelly Hobbs		
Russ Broda		
Mark Mullins		
KATHLEEN MUNNERY		
DOUG FALCIELLA		
COLIN HUBBARD		

com
 nt.com
 nlp.com
 ail.org
 con
 ait.
 com
 -com
 ad
 NET
 com

Case RZ21-0003 – Community Meeting I

August 26, 2021 at 6:00 PM

The Springs Cinema & Taphouse, 5920 Roswell Rd #C103

Name	Address	Email Address
DETE HENBRICKS		
Eric Hines		
BOB BEGLE		
Bettie Gebara		
Kelly Smith		
Andrea Sampson		
Reed Van Hoosear		
Michele McIntosh Ross		
RONDA SMITH		
Travis Ridenbaugh		
Sarah Sanderson		
Joan Freeman		
Shelly Hobbs		
Russ Brode		
Mark Mullins		
Kathleen Munney		
DOUG TALCIGLIA		
COLIN HUBBARD		

CMII Meeting

- A. Online Attendees
 - a. Amy
 - b. Brumleve
 - c. David Couchman
 - d. Linda Trickey
 - e. Margaret Brown
 - f. Robin Saldana
- B. Intro
 - a. Requesting zoning change from CS-3 to CS-6 that raises height restriction from 3 stories to 6 stories.
- C. About Jamestown
 - a. Design-focused RE investment and management firm with several mixed-use redevelopments throughout the greater Atlanta area including Ponce and Westside Provisions
- D. Site Plan
 - a. Mix of different uses at Parkside that includes a combination of office, retail, and multifamily
 - b. Centered around a community green space
 - c. Parking garage will be for shared uses with additional parking under the multifamily hidden from the eye
- E. Questions:
 - a. What is going to happen to the Italian restaurant?
 - i. We have talked to them about relocating them within the project with the goal of doing so
 - b. What is the target rent for the apartments and condo prices?
 - i. Too early in the project to answer the question – will follow up with information once we know full cost of project
 - c. Do you have images for the pedestrian bridge connecting from Hammond drive behind the Korean BBQ?
 - i. No rendering yet
 - d. Are there any high-level details you can tell us about the traffic study?
 - i. Found we can't add any more lights, but one recommendation is to re-time the light on Cliffwood and Roswell or making a turn lane
 - e. Do we have a start date yet?
 - i. Not yet – first need to get approval for the rezoning then drawings and construction and permitting
 - ii. Maybe a year and half before we start
 - f. Building in public restrooms for community events to not burden restaurants and retail?
 - i. Not in our renderings right now but something we plan to incorporate
 - g. Does JT own adjacent shops (where Egg Harbor Café is located) and if so, will the next phase involve that area all the way to Roswell Rd?
 - i. Yes, we own all of that but no plans as of now to change that portion of the site
 - h. As you think about phasing, will you build some areas first to relocate current tenants?

- i. Yes – for example Il Gallio will be moved before we start the condo development
- i. How do we give comments on the development throughout the process?
 - i. Can leave comments online
- j. Seems like not enough street parking in the site plan
 - i. There will be required to have parking per the code
- k. Would a boutique hotel add more buzz to the area as opposed to more multi-family?
 - i. We don't have the available space right now for a hotel and in today's demand environment not sure we're quite there yet
- l. What is difference between CS3 and CS6?
 - i. Just a difference in height and the reason it was zoned that way before is just because it was put in place on what was already on the ground
- m. How do the apartments and Condos compare to the ones built just to the south?
 - i. They would be close to the same elevation
- n. Question about creating more traffic along Hammond Dr where Hearth pizza is?
 - i. We don't see that entrance being the main entrance to the center
- o. How tall will the deck look compared to what's around it?
 - i. Top level will be closet to even with the Korean BBQ parking lot

October 4, 2021 at 6:00 PM

Name

Address

Email Address

Eric Hines

Grant Wishner

4. Stephen Suss, Sr.

MATTHEW ASPAZH

Bettie Gebava

Bob Begle

Mary Signault

RONDA SMITH

PETER HENSBROCK

Jan Williams

Jeff Mitchell

Russ + Cind: Broda

for 1 p. 62

STOW P. Co



argent. com

Con

5 council

- ০৭
 - ০৮

ett.net

me/.en

cast.net

COMMUNITY
MEETING #1

THURSDAY
AUGUST 26, 2021

SITE REZONING CS-3 TO CS-6

PARKSIDE SHOPS



ABOUT JAMESTOWN

Jamestown is a design-focused real estate investment and management firm with roots in Atlanta and the surrounding communities.

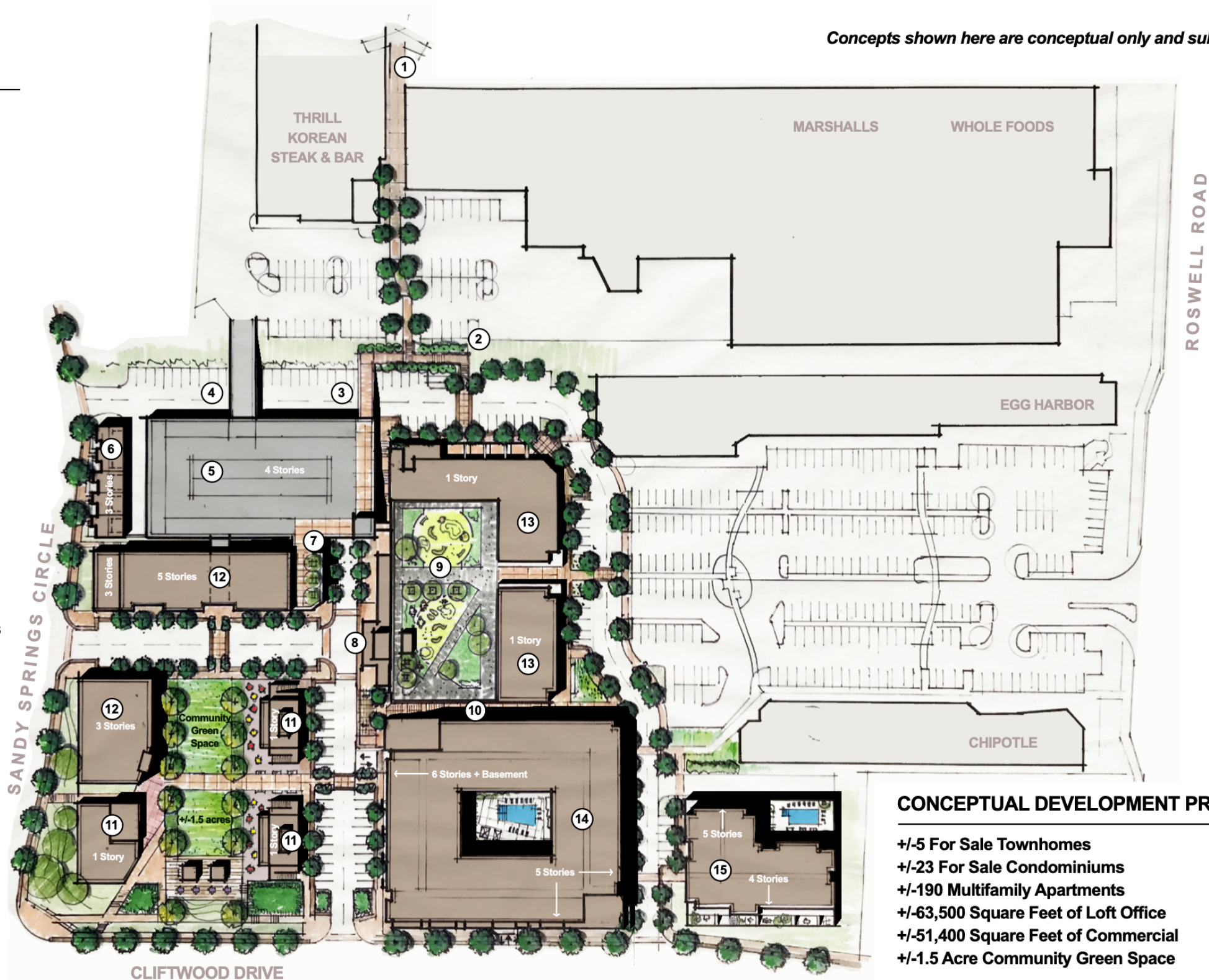
We have operated in and around Atlanta for over 35 years, leading a number of mixed-use redevelopments including Ponce City Market and Westside Provisions District.

Jamestown purchased Parkside Shops and the adjacent Hammond Exchange in 2018. We see the property as a central part of this great community.



FEATURES

- ① Pedestrian Connection to Hammond Exchange and City Walk
- ② Stairs to Connect Hammond Exchange to Parkside
- ③ Pedestrian Bridge
- ④ Vehicular Connection To Connect Parking Areas
- ⑤ Parking Deck: +/-410 Spaces
- ⑥ For Sale Townhouses (Parking in rear garages)
- ⑦ Rooftop Amenity Deck
- ⑧ New Theatre Entry
- ⑨ Rooftop Community Green Space/Dog Park (at level of existing parking lot)
- ⑩ Pedestrian Passage With Stairs Down to Town Green Level
- ⑪ Small Scale Commercial Pavilions
- ⑫ Loft Office Over Storefront Commercial
- ⑬ Renovated Commercial (Smaller Footprint)
- ⑭ Multifamily Apartments (Underground Parking)
- ⑮ Condominiums (Underground Parking)



Concepts shown here are conceptual only and subject to refinement

CONCEPTUAL DEVELOPMENT PROGRAM

- +/-5 For Sale Townhomes
- +/-23 For Sale Condominiums
- +/-190 Multifamily Apartments
- +/-63,500 Square Feet of Loft Office
- +/-51,400 Square Feet of Commercial
- +/-1.5 Acre Community Green Space





COMMUNITY GREENSPACE ENGAGEMENT





THANK
YOU!

QUESTIONS/
COMMENTS?

PARKSIDE SHOPS





P&Z STAFF REPORT

Planning Commission Meeting, November 17, 2021

Case: **TA21-0005 – (North End)**
Staff Contact: Matthew Anspach (MAnspach@sandyspringsga.gov)
Report Date: November 2, 2021

PURPOSE

An Ordinance to amend the following City Code of Ordinances Section, Development Code Article, Divisions, and Sections:

Sec. 105-19. State Minimum Standards Adopted (City Code of Ordinances)
Sec. 1.2.1. Districts Established
Article 4. Corridors & Nodes
Div. 6.6. Design Standards
Div. 6.7. Height Bonus
Div. 7.2. Allowed Use Table
Sec. 11.6.2. Variances

RECOMMENDATION

Department of Community Development

Staff recommends **Approval** of **Text Amendment** TA21-0005.

PROCESS

Planning Commission Hearing:
November 17, 2021

Mayor and City Council Hearing:
December 21, 2021

PROPOSED AMENDMENT(S)

Sec. 105-19. State Minimum Standards Adopted (City Code of Ordinances)

~~(e) Construction classification and building height. Any new building or structure designed or intended to be more than three stories in height in any respect and which individually or in aggregate with other principal buildings or structures on the same site exceeds 100,000 square feet of gross floor area (GFA), within the confined exterior walls of the structures whether occupiable or non-occupiable, shall, irrespective of any conflicting allowances or provisions of any other standard, code or ordinance having force and effect in the corporate limits of the City of Sandy Springs, Georgia, be of Type I or Type II construction defined in chapter 6 of the 2012 International Building Code as amended by the State of Georgia. This regulation shall not be~~

~~used to relax or reduce any requirement in Table 503, Allowable Building Heights and Areas, or any other section of the current adopted International Building Code.~~

Sec. 1.2.1. Districts Established

In order to carry out the purposes and intent of this Development Code, the City is divided into the following zoning districts, as established on the Official Zoning Map in Div. 13. These districts are intended to implement specific Character Areas established in the Comprehensive Plan, as set out in the table below.

District		Planned Character
Protected Neighborhood Districts		
RE-	Residential Estate	Protected Neighborhood
RD-	Residential Detached	Protected Neighborhood
PK	Parks	Conservation Areas/Parks
CON	Conservation	Conservation Areas/Parks
Urban Neighborhood Districts		
RU-	Residential Urban	Urban Neighborhood
RT	Residential Townhouse	Urban Neighborhood, Powers Ferry
RM-	Residential Multi-unit	Urban Neighborhood, Powers Ferry
RX-	Residential Mixed Use	Urban Neighborhood, Powers Ferry
Corridor & Node Districts		
ON-	Office Neighborhood	Neighborhood Village
OX-	Office Mixed Use	Commercial/Mixed Use, Powers Ferry, Powers Ferry Village
CX-	Commercial Mixed Use	Commercial/Mixed Use, Powers Ferry, Powers Ferry Village
SX-	Shopfront Mixed Use	Mixed Use, Powers Ferry Village
TX-	Transit-Oriented	MARTA Transit-Oriented Development
CS-	City Springs	City Springs
IX-	Industrial Mixed Use	Commercial/Mixed Use
CC-	Commercial Corridor	Commercial/Mixed Use, Powers Ferry Village
NEX-	North End Mixed Use	Mixed Use

Div. 4.1. District Intent Statements

The Corridor & Node districts are intended to allow enhancement of the City's major corridors and those mixed use nodes other than Perimeter Center. The corresponding Character Area Map categories for each zoning district are provided in Sec. 1.2.1.

...

Sec. 4.1.9. North End Mixed Use

The North End Mixed Use districts are intended for residential living in multi-unit residences, balanced with a minimum of 25% of all units provided as single unit residential. In buildings where multi-unit residences are provided, neighborhood-serving uses are allowed as an option on the ground floor. The NEX- Districts also allow for civic, open space and park uses. Where NEX- Districts abut Protected Neighborhood districts, a transition area is required. These districts have been crafted for sites of at least 8 acres in area that are located along Roswell Road north of Dalrymple, and are not intended to be applied in other portions of the City. The NEX- Districts include:

A. NEX-5/6: North End Mixed Use

5 stories max height without bonus;
6 stories max height with all residential, using affordable bonus; OR
6 stories max height with retail ground floor, using retail bonus.

B. NEX-5/10/12: North End Mixed Use

5 stories max height plus special allowance for 10 stories max height in rear of site without bonus;
12 stories max height with all residential, in rear of site using affordability bonus; OR
12 stories max height with retail ground floor, in rear of site using retail bonus.

Div. 4.10. North End Mixed Use (NEX-5/6)

SEC. 4.10.1. LOT PARAMETERS

<u>Lot</u>	
<u>Area</u>	
<u>Single unit attached</u>	<u>1,250 SF min</u>
<u>Multi-unit</u>	<u>7,500 SF min</u>
<u>All other allowed uses</u>	<u>10,000 SF min</u>
<u>Width</u>	
<u>Single unit attached</u>	<u>16' min</u>
<u>Multi-unit</u>	<u>75' min</u>
<u>All other allowed uses</u>	<u>100' min</u>
<u>Coverage</u>	
<u>Lot coverage</u>	<u>70% max</u>
<u>Outdoor amenity space, total</u>	<u>15% min</u>
<u>Location at grade</u>	<u>10% min</u>

SEC. 4.10.2. BUILDING PLACEMENT

<u>Build-to Zone</u>	
<u>Primary or primary internal street</u>	<u>5' min/30' max</u>
<u>% of building facade in primary internal street build-to zone</u>	<u>60% min</u>
<u>Side street</u>	<u>5' min/30' max</u>
<u>% of building facade in primary street or side street build-to zone</u>	<u>30% min</u>
<u>Side and Rear Building Setbacks</u>	
<u>Side: common lot line/alley</u>	<u>5' min</u>
<u>Side: single unit attached, between abutting units</u>	<u>0' min</u>
<u>Rear: common lot line/alley</u>	<u>5' min</u>
<u>Abutting a Protected Neighborhood</u>	<u>see Div. 6.4</u>
<u>Parking Setbacks</u>	
<u>Primary or primary internal street</u>	<u>20' min</u>
<u>Side street</u>	<u>10' min</u>
<u>Side: common lot line/alley</u>	<u>0' min</u>
<u>Rear: common lot line/alley</u>	<u>0' min</u>
<u>Abutting a Protected Neighborhood</u>	<u>see Div. 6.4</u>

SEC. 4.10.3. HEIGHT AND MASS

Building Height

Single unit residential 3 stories/40' max

All other uses without bonus 5 stories/65' max

All other uses with bonus
for retail ground floor OR
with bonus for affordable
housing 6 stories/80' max

All uses within a transition
area 2 stories/24' max

Required minimum height 2 stories min

Story Height

Ground floor elevation,
residential 2' min/5' max

Ground floor elevation, retail
or
retail-ready 0' min/2' max

Ground story, residential 11' min

Ground story, retail/retail-
ready 14' min

Upper story 10' min

Building Mass

Street-facing building length 200' max

SEC. 4.10.4. ACTIVATION

Transparency

Ground story, residential 30% min

Ground story, retail-ready 50% min

Upper story 20% min

Blank wall length 30' max

Pedestrian Access

Entrance facing primary or
primary internal street Required

Entrance spacing along
primary or primary internal
street 100' max

Development Patterns Allowed

Cottage Court see Div. 6.3

Residential Units Required

Single unit residential
(% of total units) 25% min

Sec. 4.10.5. District Standards

A. Primary Internal Street

1. A continuous primary internal street must be established in any NEX- District. The street must connect to Roswell Road.
 - a. Where the development site faces only Roswell Road, the primary internal street must connect at two points, providing a loop road servicing the entire development.
 - b. Where the development site is a corner lot facing Roswell Road at an intersection with a collector or higher designated street, the primary internal street must connect through the site from Roswell Road to the intersecting street.
2. The ground floor of a multi-unit building facing a primary or internal primary street must be constructed to be retail-ready (built to meet or exceed the minimum requirements for ground floor elevation, ground story height, transparency, and entrance spacing required for a retail use). Retail-ready space is allowed to be occupied by any use allowed in the zoning district.

B. Phasing of Residential Construction

Where construction occurs in phases, each phase that includes multi-unit residential development must meet the following standards.

1. Each phase must maintain or exceed the required percentage of ground floor residential units required for the amount of multi-unit residential proposed.
2. Certificates of occupancy for any multi-unit residential may only be issued after the issuance of certificates of occupancy of the required percentage of ground floor residential units associated with the multi-unit residential.
3. No additional height associated with an affordable housing bonus is allowed prior to the construction of the necessary affordable housing units required to receive the bonus.

C. Structured Parking

1. Structured parking must not be visible from the adjacent primary or primary internal streets of the development.
2. No multi-unit building over 3 stories in height may be served by surface parking only. The Director may allow a split between surface and structured parking after consideration of the impact on stormwater management and availability of project open space.

Div. 4.11. North End Mixed Use (NEX-5/10/12)

SEC. 4.11.1. LOT PARAMETERS

<u>Lot</u>	
<u>Area</u>	
<u>Single unit attached</u>	<u>1,250 SF min</u>
<u>Multi-unit</u>	<u>7,500 SF min</u>
<u>All other allowed uses</u>	<u>10,000 SF min</u>
<u>Width</u>	
<u>Single unit attached</u>	<u>16' min</u>
<u>Multi-unit</u>	<u>75' min</u>
<u>All other allowed uses</u>	<u>100' min</u>
<u>Coverage</u>	
<u>Lot coverage</u>	<u>70% max</u>
<u>Outdoor amenity space</u>	<u>15% min</u>
<u>Location at grade</u>	<u>10% min</u>

SEC. 4.11.2. BUILDING PLACEMENT

<u>Build-to Zone</u>	
<u>Primary or primary internal street</u>	<u>5' min/30' max</u>
<u>% of building facade in primary or internal street build-to zone</u>	<u>60% min</u>
<u>Side street</u>	<u>5' min/30' max</u>
<u>% of building facade in side street build-to zone</u>	<u>30% min</u>
<u>Side and Rear Building Setbacks</u>	
<u>Side: common lot line/alley</u>	<u>5' min</u>
<u>Side: single unit attached between abutting units</u>	<u>0' min</u>
<u>Rear: common lot line/alley</u>	<u>5' min</u>
<u>Abutting a Protected Neighborhood</u>	<u>see Div. 6.4</u>
<u>Parking Setbacks</u>	
<u>Primary or internal street</u>	<u>20' min</u>
<u>Side street</u>	<u>10' min</u>
<u>Side: common lot line/alley</u>	<u>0' min</u>
<u>Rear: common lot line/alley</u>	<u>0' min</u>
<u>Abutting a Protected Neighborhood</u>	<u>see Div. 6.4</u>

SEC. 4.11.3. HEIGHT AND MASS

SEC. 4.11.4. ACTIVATION

Building Height

Single unit residential 3 stories/40' max

Within 400 feet of Roswell Road

All other allowed uses 5 stories/65' max

All other allowed uses with affordable housing bonus 6 stories/80' max

Beyond 400 feet from Roswell Road

All other allowed uses 10 stories/140' max

If adjacent to RE- or RD- 10 stories/129' max

All other allowed uses with affordable housing bonus or retail bonus 12 stories/165' max

If adjacent to RE- or RD- 12 stories/154' max

All uses within a transition area 2 stories/24' max

Required minimum height 2 stories min

Story Height

Ground floor elevation residential 2' min/5' max

Ground floor elevation retail or retail-ready 0' min/2' max

Ground story residential 11' min

Ground story retail/retail-ready 14' min

Upper story 10' min

Building Mass

Street-facing building length 200' max

Transparency

Ground story residential 30% min

Ground story retail-ready 50% min

Upper story 20% min

Blank wall length 30' max

Pedestrian Access

Entrance facing primary or internal street Required

Entrance spacing along primary or internal street 100' max

Development Patterns Allowed

Cottage Court see Div. 6.3

Residential Units Required

Single unit residential (% of total units) 25% min

Sec. 4.11.5. District Standards

A. Primary Internal Street

1. A continuous primary internal street must be established in any NEX- District. The street must connect to Roswell Road.
 - a. Where the development site faces only Roswell Road, the primary internal street must connect at two points, providing a loop road servicing the entire development.
 - b. Where the development site is a corner lot facing Roswell Road at an intersection with a collector or higher designated street, the primary internal street must connect through the site from Roswell Road to the intersecting street.
2. The ground floor of a multi-unit building facing a primary or internal primary street must be constructed to be retail-ready (built to meet or exceed the minimum requirements for ground floor elevation, ground story height, transparency, and entrance spacing required for a retail use). Retail-ready space is allowed to be occupied by any use allowed in the zoning district.

B. Phasing of Residential Construction

Where construction occurs in phases, each phase that includes multi-unit residential development must meet the following standards.

1. Each phase must maintain or exceed the required percentage of ground floor residential units required for the amount of multi-unit residential proposed.
2. Certificates of occupancy for any multi-unit residential may only be issued after the issuance of certificates of occupancy of the required percentage of ground floor residential units associated with the multi-unit residential.
3. No additional height associated with an affordable housing bonus is allowed prior to the construction of the necessary affordable housing units required to receive the bonus.

C. Structured Parking

1. Structured parking must not be visible from the adjacent primary or primary internal streets of the development.
2. No multi-unit building over 3 stories in height may be served by surface parking only. The Director may allow a split between surface and structured parking after consideration of the impact on stormwater management and availability of project open space.

Div. 4.12. [Reserved]

Div. 4.13. [Reserved]

Div. 4.14. [Reserved]

Div. 4.11.15. Corridor & Node Frontages

ARTICLE 6. RULES FOR ALL DISTRICTS

Sec. 6.6.1. Applicability

A. The ~~design~~ standards of Sec. 6.6.2, this Division apply to:

1. All nonresidential buildings in Protected Neighborhoods;
2. All buildings in RT, RM- and RX- Districts;
3. All buildings in Corridors & Nodes districts except CC- and IX-; and
4. All buildings in Perimeter Center districts.

B. ~~The standards of Sec. 6.6.3 apply to all buildings in every district except for buildings in the NEX- District~~

...

Sec. 6.6.3 Construction Classification and Building Height

A. ~~The standards of this Sec. 6.6.3 apply to all buildings in every district except for buildings in the NEX- District~~

B. ~~Except as otherwise provided herein, for any zoning district in which buildings of more than three stories in height are allowed pursuant to this Development Code, any new building or structure designed or intended to be more than 3 stories in height in any respect and which individually or in aggregate with other principal buildings or structures on the same site exceeds 100,000 square feet of gross floor area (GFA), within the confined exterior walls of the structures whether occupiable or non-occupiable, shall, irrespective of any conflicting allowances or provisions of any other standard, code or ordinance having force and effect in the corporate limits of the City of Sandy Springs, Georgia, be of Type I or Type II construction defined in the International Building Code as adopted and amended from time to time by the State of Georgia. This regulation shall not be used to relax or reduce any requirement in the Allowable Building Heights and Areas table or any other section of the current adopted International Building Code or as amended from time to time by the State of Georgia.~~

Div. 6.7. Height Bonus

Sec. 6.7.3. NEX- Districts

A. Applicability

1. A height bonus is allowed in any eligible NEX- District, subject to the requirements of this Section. The total bonus height in stories (where allowed) is designated on the Official Zoning Map as follows.

<u>District</u>	<u>Base Height Without Bonus</u>	<u>Total Height with Retail Ground Floor Bonus</u>	<u>Total Height with Affordable Housing Bonus</u>
<u>NEX-5/6</u>	<u>5 stories/70'</u>	<u>--</u>	<u>6 stories, 85'</u>
<u>NEX-5/10/12</u>	<u>5 stories/70'</u>	<u>5 stories/70'</u>	<u>5 stories/70'</u>
<u>Base height</u>	<u>10 stories/140'</u>	<u>10 stories/140'</u>	<u>10 stories/140'</u>
<u>Special allowance in rear of site</u>	<u>--</u>	<u>12 stories/165'</u>	<u>12 stories/165'</u>
<u>Bonus height</u>	<u>--</u>	<u>12 stories/165'</u>	<u>12 stories/165'</u>

2. A height bonus for retail ground floor may not be used in conjunction with an affordable housing height bonus to gain additional height.

B. Height Bonus System

1. Retail Ground Floor

A bonus will be provided in the NEX-5/6 and NEX-5/10/12 District, in trade for an active ground floor occupied by retail uses. The retail ground floor depth must be a minimum of 30 feet. One additional story in height is allowed in the NEX-5/6 District and 2 additional stories are allowed in the NEX-5/10/12 District. Additional design requirements are specified on the applicable zoning district pages. This bonus may not be used with an affordable housing bonus.

2. Affordable Housing

- a. A bonus will be provided in the NEX-5/6 and NEX-5/10/12 District, in trade for making 10% of all multi-unit residential affordable to those earning up to 80% of the Area Median Income (AMI), as calculated by the US Department of Housing and Urban Development using US Census data. The affordability requirement must extend a minimum of 30 years. The available height with bonus is defined in paragraph A. above. This bonus may not be used with a retail ground floor bonus. See also Sec. 6.6.5 Phasing of Residential Development.
- b. Unit sizes for affordable housing must match the unit sizes proposed for the entire building, as a percentage (for example, a building with 60% 2-bedroom market-rate units must include 60% 2-bedroom affordable units). The affordable units must include floor area that varies no more than 10% from the average floor area of similar floor plans for market rate units, and must contain similar

C. Process for Acquiring Additional Rights

Any allowed additional height may be granted by the Director, provided the requirements of this Section have been met.

D. Additional Requirements

No variances to outdoor amenity space or transition provisions may be granted in conjunction with a height bonus.

ARTICLE 7. USE PROVISIONS

Div. 7.2. Allowed Use Table

Allowed Use Table	Corridors & Nodes
Use Category:	NEX
Specific Use	
Residential Uses	
Household Living	
Single unit detached	P
Single unit attached	P
Multi-unit	P
Guest house	P
Live/work	P
Group Living, except as listed below:	P
Personal care home, up to 3 residents	P
Personal care home, 4 or more residents	C
Rehabilitation or Treatment Facility	--
Public and Civic Uses	
Civic	
College/university	--
Government facility	P
Library/museum	P
Place of Assembly	P
Place of worship	P
Prison/correctional facility	--
School, private (K-12)	L
School, public (K-12)	P
Recreation and Open Space	
Cemetery/mausoleum	--
Conservation area (up to 1 acre)	P
Conservation area (more than 1 acre)	--
Golf course	--

KEY: P Permitted | L Limited Use | C Conditional Use Permit | A Administrative Use Permit | -- Not Permitted

Allowed Use Table	Corridors & Nodes
Use Category:	NEX
Specific Use	
Recreational facility	P
Subdivision amenity	P
Public and Civic Uses (cont.)	
Utilities	
Minor utilities	P
Major utilities	C
Wireless Communications	
Alternative support antenna structure and roof-mounted antenna	P
Amateur radio antenna (up to 90 feet)	P
Amateur radio antenna (more than 90 feet)	C
Tower antenna	C
Commercial Uses	
Adult Establishment	--
Animal Care	
Animal care, indoor	P
Animal care, outdoor	--
Day Care	P
Medical, except as listed below:	P
Hospital	C
Office	P
Overnight Lodging	
Bed and Breakfast (up to 5 rooms)	P
Executive suites hotel	--
Boutique hotel (6 to 30 rooms)	P
Hotel (more than 30 rooms)	--
Parking, Commercial	P
Passenger Terminal	P
Personal Service	P
Restaurant	P
Retail, except as listed below:	P
Fireworks retail facility	--

Allowed Use Table	Corridors & Nodes
Use Category:	NEX-
Specific Use	
Fuel pumps, gas station	--
Vehicle Sales and Rental	
Minor vehicle sales and rental	--
Major vehicle sales and rental	--
Industrial Uses	
Artisanal	P
Heavy Industrial	--
Light Industrial/Manufacturing	--
Micro-producer	P
Research and Development	P
Resource Extraction	--
Vehicle Service and Repair	
Minor vehicle service and repair	--
Major vehicle service and repair	--
Warehouse and Distribution, except as listed below:	--
Fireworks distributor	--
Self-service storage, mini-warehouse	C
Waste-Related Service, except as listed below:	--
Recycling processing center	--
Open Uses	
Agriculture	
Community garden	P
Composting	--
Plant nursery	--
Timber harvesting	--
Urban farm	P
Accessory Uses	
Amphitheater	C
Car wash	--
Drive-thru facility	--
Family day care home	--
Farmers market	P
Greenhouse, non-commercial	P

Allowed Use Table	Corridors & Nodes
Use Category:	NEX
Specific Use	
Home occupation	P
Horse stable, non-commercial	--
Kennel, residential	--
Livestock raising	P
Outdoor dining	P
Outdoor kitchen	--
Outdoor storage, minor	--
Outdoor storage, major	--
Poultry raising	P
Residential accessory structure	P
Short-term rental	P
Skywalk	C
Solar panels, wind turbines, rainwater collection systems	P
Swimming pool, multi-unit amenity	P
Unmanned retail structures	P
Temporary Uses	
Goat/sheep yard maintenance	A
Mobile Temporary Uses	
Cell on Wheels (COWs) Antenna	A
Mobile services	A
Other Temporary Uses	A
Temporary Structures	
Donation Bin or Trailer	A
Manufactured Home	A
Model Home	P
Other Temporary Structure	A
Temporary Fireworks Retail Sales	A
Temporary Office	A
Party House	A

ARTICLE 11. ADMINISTRATION

Div. 11.6. Relief

Sec. 11.6.2. Variances

...

B. Limitations

Variances are not allowed for any of the following:

3. Minimum lot area, minimum lot frontage on a street or minimum lot width at the time of subdivision (this does not include a nonconforming lot of record platted prior to the effective date of this Development Code — see Sec. 11.74.);
4. Building height;
5. Sign height, sign area allocation or individual sign area;
6. Fence, wall and building materials;
7. Standards for Conditional Use Permits;
1. Elimination of frontage improvement requirements; ~~and~~
2. Permitted or accessory uses; and
3. Construction classification and building height requirements provided in Sec. 6.6.3.

BACKGROUND

In 2019, the City conducted a study to develop conceptual designs for redevelopment scenarios focused on large, underutilized shopping center sites in the North End. The plan created conceptual scenarios for each site, including economic analysis and financial feasibility based upon market conditions. Implementation of the plan recommends City action in three key areas: policies, incentives, and Development Code changes.

The plan identified Development and Building Code barriers to redevelopment, including zoning, concrete and steel requirements, building heights, and ground-floor commercial requirements. The plan recommends considering options to incentivize attainable housing in new development.

City staff prioritized the following factors to select the preferred scenario for each site to inform the proposed text amendments:

1. Preferred scenarios should be financially feasible to encourage the potential for redevelopment; and
2. Preferred scenarios should include the greatest opportunity for single unit development.

The proposed text amendments create a new zoning district, North End Mixed Use (NEX-), tailored to sites of at least 8-acres located along Roswell Road north of Dalrymple. The NEX- district establishes height bonuses for ground-floor retail and attainable housing (10% of multi-units affordable to those earning up to 80% of the Area Median Income). Unique to the NEX- district, 25% of the total number of units on site must be single unit (detached / attached (townhouse) cottage court, etc.) The required percentage of single unit must be constructed before a Certificate of Occupancy will be issued for any multi-unit development. Additionally, the text amendments include an exemption for the NEX- district from the concrete and steel requirement.

The proposed text amendments do not modify the existing zoning of any property. Any rezoning effort would require a separate zoning map amendment process, including two community meetings, a Planning Commission public hearing, and a hearing before the Mayor and City Council.

DEPARTMENT OF COMMUNITY DEVELOPMENT RECOMMENDATION

Following review, Staff recommends **Approval** of **Text Amendment** TA21-0005, An Ordinance to amend the following City Code of Ordinances Section, Development Code Article, Divisions, and Sections:

Sec. 105-19. State Minimum Standards Adopted (City Code of Ordinances)
Sec. 1.2.1. Districts Established
Article 4. Corridors & Nodes
Div. 6.6. Design Standards
Div. 6.7. Height Bonus
Div. 7.2. Allowed Use Table
Sec. 11.6.2. Variances



P&Z STAFF REPORT

Planning Commission Meeting, November 17, 2021

Case: **TA21-0006 – (Stormwater Management)**
Staff Contact: Ginger Sottile (GSottile@sandyspringsga.gov)
Report Date: November 8, 2021

PURPOSE

An Ordinance to amend the following Development Code Division:

Div. 9.6. Stormwater Management

RECOMMENDATION

Department of Community Development

Staff recommends **Approval** of **Text Amendment** TA21-0006.

PROCESS

Planning Commission Hearing:
November 17, 2021

Mayor and City Council Hearing:
December 21, 2021

PROPOSED AMENDMENT(S)

Sec. 9.6.3.A.3. Minimum Requirements

3. **Minimum Requirements** Except for repairs to existing stormwater facilities or stormwater facilities in the right-of-way, all developments and redevelopment activity, including single-family residential and those which are otherwise exempt from this Division, the following minimum requirements shall apply:
- Lots and buildings shall be developed in a manner to ensure that stormwater exiting individual parcels or lots under post-development conditions does not adversely impact the adjacent parcels or lots as a result of concentrated flows, flooding, erosion or deposits of silt or sediment;
 - The stormwater discharge from a downspout, cistern, or any water collection device shall be located no closer to a property line than ten feet and oriented so direction of flow is away from any downstream improvements. Discharge from any outlet must be dissipated, infiltrated or diverted such that flows will not be concentrated; and
 - No person shall erect, construct, or otherwise permit any obstruction that prevents the natural or contained flow of water to or from any component of the stormwater system

of the City unless such obstruction is allowed as a part of a permit approved pursuant to this Division.

- d. Lots and buildings shall be developed to provide Green Infrastructure / Low Impact Development best management practices. Single Family – Single Lot Development that is not part of a larger common development shall be exempt from this requirement.

Sec. 9.6.5.C. Permit Application Requirements

- C. Unless otherwise exempted by this Division, a permit application is accompanied by the following items in order to be considered:
1. Stormwater concept plan and consultation meeting certification in accordance with Sec. 9.6.7;
 2. Stormwater management plan in accordance with Sec. 9.6.8;
 3. Green Infrastructure Feasibility Form in accordance with Sec 9.6.7;
 - 3 4. Inspection and maintenance agreement in accordance with Sec. 9.6.8, if applicable;
 - 4 5. Performance bond, if applicable; and
 - 5 6. Permit application and plan review fees in accordance with Sec. 9.6.10.

Sec. 9.6.7. Stormwater Concept Plan

- B. Information to be submitted. To accomplish this goal, the following information is included in the concept plan that is submitted in advance of the meeting:
1. **Existing Conditions** Proposed site plans. Existing conditions and proposed site layout sketch plans which illustrate, at a minimum, existing and proposed topography; perennial and intermittent streams; mapping of predominant soils from soil surveys (when available); boundaries of existing predominant vegetation and proposed limits of clearing and grading; and location of existing and proposed roads, buildings, parking areas and other impervious surfaces.
 2. **Natural Resources Inventory** A written or graphic inventory of the natural resources at the site and surrounding area as it exists prior to the commencement of the project. This description should include a discussion of soil conditions, forest cover, topography, wetlands, and other native vegetative areas on the site, as well as the location and boundaries of other natural feature protection and conservation areas such as wetlands, lakes, ponds, floodplains, stream buffers and other setbacks (e.g., drinking water well setbacks, septic setbacks, etc.). Particular attention should be paid to environmentally sensitive features that provide particular opportunities or constraints for development.
 3. **Stormwater Management System Concept Plan** A written or graphic concept plan of the proposed post-development stormwater management system including: preliminary selection and location of proposed structural stormwater controls; location of existing and proposed conveyance systems such as grass channels, swales, and storm drains; flow paths; location of floodplain/floodway limits; relationship of site to upstream and downstream properties and drainages; and preliminary location of proposed stream channel modifications, such as bridge or culvert crossings. Local watershed plans, the City greenspace protection plan (if applicable), and any relevant resource protection plans will be consulted in the discussion of the concept plan.
 4. **Green Infrastructure Feasibility Form.** The standard City form will be provided with required documentation for Linear or Non-linear projects determining whether the

installation of Green Infrastructure best management practices are feasible or infeasible for the proposed project based on soil infiltration rates, water table or bedrock conditions, setbacks, landmark trees, endangered species, brownfield site conditions, on-site contaminants, historic resources, steep slopes, utility conflicts or practicability hardships.

Sec. 9.6.12.A.1. Water Quality

1. **Water Quality/Runoff Reduction:** All stormwater runoff generated from a site shall provide runoff reduction of the first 1.2 inches of rainfall or shall be adequately treated for water quality before discharge. With the exception of single lot residential developments that are not part of a common development, this shall be accomplished by the use of Green Infrastructure Best Management Practices unless determined to be infeasible in accordance with Sec. 9.6.7.B.4. of this code.

It will be presumed that a stormwater management system complies with this requirement if it satisfies the stormwater reduction criteria in this section. However if any of the stormwater runoff volume generated by the first 1.2 inches of rainfall cannot be reduced or retained on site due to constraints such as a high water table, rock, low infiltration rates or the presence of a hotspot, the remaining volume shall be increased by a multiplier of 1.2 and shall be intercepted and treated in one or more stormwater management practices that provide at least an 80 percent reduction in total suspended solids loads in accordance with the following criteria:

- a. It is sized to treat the prescribed water quality treatment volume from the site, as defined in the Georgia Stormwater Management Manual;
- b. Appropriate structural stormwater controls or nonstructural practices are selected, designed, constructed or preserved, and maintained according to the specific criteria in the Georgia Stormwater Management Manual or constitutes an alternative practice responsibly designed and documented by the design professional to reproduce the intent of the Georgia Stormwater Management Manual; and
- c. Runoff from hotspot land uses and activities identified by the Department are adequately treated and addressed through the use of appropriate structural stormwater controls, nonstructural practices and pollution prevention practices.

BACKGROUND

Our current Municipal separate storm sewer system permit (MS4) requirements address Public non-linear projects and Public linear projects and does not address Private Developments (not including single family residential). GA EPD's review of current City policy indicates Private Development must be considered for Green Infrastructure.

This is a text proposed amendment to have the City's Development Code come into compliance with EPD's directive in 2017 to implement the revised MS4 policy by Feb 15, 2020, which we adopted March 2, 2021.

All of the requested Code Amendments have been in place (in practice) for this past year, these requested updates to our Code only seek to formalize and Codify what Community Development staff already has implemented.

For these reasons, Staff recommends that Div. 9.6 be amended, so as to maintain compliance with EPD's policy and regulatory requirements.

DEPARTMENT OF COMMUNITY DEVELOPMENT RECOMMENDATION

Following review, Staff recommends **Approval** of **Text Amendment** TA21-0006, An Ordinance to amend the following Development Code Division:

Div. 9.6. Stormwater Management