#### AGENDA CITY COUNCIL REGULAR MEETING G.L. Gilleland Council Chambers on 2<sup>nd</sup> Floor Monday, October 3, 2022 5:00 P.M.

- 1. Call to Order
- 2. Roll Call
- 3. Invocation and Pledge
- 4. Announcements
- 5. Approval of the Agenda
- 6. Public Input
- 7. Consent Agenda
  - a. Approve Minutes
    - Regular Meeting and Work Session held September 19, 2022
    - Executive Session held September 19, 2022
  - b. Approve Use of Memorial Gardens for 2<sup>nd</sup> Annual Ghost Walk
- 8. Introduce the Downtown Development Manager Amanda Edmondson

#### PUBLIC HEARING

- ANX-C2200122: Jim Chapman Communities, Inc has petitioned to annex into the city limits of Dawsonville the 3-acre tract known as TMP 093 046 (tract 2), located at 922 Hwy 53 East, with a County Zoning of RSR (Residential Sub-Rural) to City Zoning R6 (Multiple-Family District). Public Hearing Dates: Planning Commission on September 12, 2022, and City Council on October 3, 2022. City Council for a decision on October 17, 2022.
- ZA-C2200123: Jim Chapman Communities, Inc has petitioned a zoning amendment for TMP 093 043, 093 044, and 093 047; Located at 2120 Perimeter Road and 922 Hwy 53 East from R1 (Restricted Single-Family Residential District) to R6 (Multiple-Family Residential District). Public Hearing Dates: Planning Commission on September 12, 2022, and City Council October 3, 2022. City Council for a decision on October 17, 2022.

#### BUSINESS

- 11. Request for Refund of Building Permit Fee
- 12. Red Hawk Subdivision Road Dedication Request
- 13. Update Appraisal for Elliott Field Airport Property
- 14. Award Bids Pickleball and Basketball Courts for Main Street Park

#### **EXECUTIVE SESSION, IF NEEDED**

#### ADJOURNMENT

#### The next scheduled City Council meeting is Monday, October 17, 2022

Those persons with disabilities who require reasonable accommodations in order to allow them to observe and/or participate in this meeting or who have questions regarding the accessibility of the meeting, should contact the Clerk at Dawsonville City Hall at 706-265-3256 at least two (2) business days prior to the meeting.



# DAWSONVILLE CITY COUNCIL EXECUTIVE SUMMARY FOR AGENDA ITEM #\_\_\_\_7

SUBJECT: CONSENT AGENDA

CITY COUNCIL MEETING DATE: 10/03/2022

PURPOSE FOR REQUEST:

# CONSIDERATION AND APPROVAL OF ITEMS BELOW; SEE ATTACHED SUPPORTING DOCUMENTS

- a. Approve Minutes
  - Regular Meeting and Work Session held September 19, 2022
  - Executive Session held September 19, 2022
- b. Approve Use of Memorial Gardens for 2<sup>nd</sup> Annual Ghost Walk



# DAWSONVILLE CITY COUNCIL EXECUTIVE SUMMARY FOR AGENDA ITEM #<u>7a</u>

SUBJECT: APPROVE MINUTES
CITY COUNCIL MEETING DATE: 10/03/2022
BUDGET INFORMATION: GL ACCOUNT #NA
Funds Available from: Annual Budget Capital Budget Other
Budget Amendment Request from Reserve:Enterprise FundGeneral Fund
PURPOSE FOR REQUEST:
TO APPROVE THE MINUTES FROM:
<ul> <li>REGULAR MEETING AND WORK SESSION HELD SEPTEMBER 19, 2022</li> <li>EXECUTIVE MEETING HELD SEPTEMBER 19, 2022</li> </ul>
HISTORY/ FACTS / ISSUES:
OPTIONS:
AMEND OR APPROVE AS PRESENTED
RECOMMENDED SAMPLE MOTION:

REQUESTED BY: Beverly Banister, City Clerk

#### MINUTES CITY COUNCIL REGULAR MEETING AND WORK SESSION G.L. Gilleland Council Chambers on 2<sup>nd</sup> Floor Monday, September 19, 2022 5:00 P.M.

- 1. CALL TO ORDER: Mayor Eason called the meeting to order at 5:00 pm.
- 2. ROLL CALL: Present were Councilmember John Walden, Councilmember Mark French, Councilmember Caleb Phillips, City Attorney Kevin Tallant, City Manager Bob Bolz, City Clerk Beverly Banister, Public Works Director Trampas Hansard, Utilities Operation Manager Jacob Barr, Finance Administrator Robin Gazaway and Interim Planning Director Diane Callahan.

Councilmember Illg was not present at the meeting.

- 3. INVOCATION AND PLEDGE: Invocation and pledge were led by Councilmember French.
- **4. ANNOUNCEMENTS:** Mayor Eason reminded citizens the Farmer's Market is still open on Saturdays and the Mountain Moonshine Festival and the Second Annual Ghost Walk will occur during the month of October.
- **5. APPROVAL OF THE AGENDA:** Motion to approve the agenda as presented made by J. Walden; second by C. Phillips. Vote carried unanimously in favor.
- 6. PUBLIC INPUT: None
- **7. CONSENT AGENDA:** Motion to approve the consent agenda for the following items (a,b) made by M. French; second by C. Phillips. Vote carried unanimously in favor.
  - a. Approve Minutes
    - Regular Meeting and Work Session held August 15, 2022
    - Executive Session held August 15, 2022
  - b. Approve Low Income Household Water Assistance Program Agreement
- 8. EMPLOYEE RECOGNITION: The Mayor and Council presented Beverly Banister with the August 2022 Employee of the Month award. Stan Zaverukha and Steven McNeal received four-year service awards and Jacob Barr received an eleven-year service award.
- 9. **PROCLAMATION CHASE ELLIOTT DAY:** Mayor Eason read the proclamation and presented it to Cindy Elliott.
- **10. STATE RESOLUTION FOR THE 50<sup>TH</sup> ANNIVERSARY OF BURT'S PUMPKIN FARM:** Motion to approve the City's participation in the State's Resolution honoring the 50<sup>th</sup> Anniversary of Burt's Pumpkin Farm made by J. Walden; second by C. Phillips. Vote carried unanimously in favor.

#### BUSINESS

- 11. STANDARD SPECIFICATIONS FOR ROADWAY AND DRAINAGE SYSTEMS AMENDMENT: Motion to approve amendment to the Standard Specifications for Roadway and Drainage Systems, Division III, Section 1.11 Storm Water Infrastructure Inspection as presented made by C. Phillips; second by M. French. Vote carried unanimously in favor. (Exhibit "A")
- **12. IMPACT FEE STUDY AGREEMENT WITH GEORGIA MOUNTAIN REGIONAL COMMISSION:** Motion to approve the agreement to perform an impact fee study with the Georgia Mountain Regional Commission made by M. French; second by J. Walden. Vote carried unanimously in favor.
- **13. SPECIAL EVENT WITH ALCOHOL BOOTLEGGERS BAR & GRILL, OCTOBER 21 23, 2022:** Motion to approve the special event permit with alcohol as presented made by C. Phillips; second by M. French. The City Council stated the area being used for alcohol will need to be completely fenced in. Vote carried unanimously in favor.
- **14. FUNDING FOR DEVELOPMENT OF WELL #112:** Motion to approve pursuing the Population Grant from the Governor's Office of Planning and Budget for Water for the development of Well #112 made by M. French; second by J. Walden. Vote carried unanimously in favor.

#### MINUTES CITY COUNCIL REGULAR MEETING AND WORK SESSION G.L. Gilleland Council Chambers on 2<sup>nd</sup> Floor Monday, September 19, 2022 5:00 P.M.

**15. INTERGOVERNMENTAL AGREEMENT AMENDMENT REGARDING A TRAIL TO THE LIBRARY:** Motion to approve the amendment to the IGA made by C. Phillips; second by J. Walden. Vote carried unanimously in favor.

#### WORK SESSION

- **16. 2023 SOLID WASTE COLLECTION SERVICE RATE AND ESTABLISH SERVICE CHARGE:** Motion to approve the 2023 Solid Waste Collection Service Rate from Red Oak Sanitation of \$15.90 per can, per month and approve the service charge at cost plus \$4.00 for a total of \$19.90 per can, per month made by M. French; second by C. Phillips. Vote carried unanimously in favor.
- **17. 2023 MEETING CALENDAR REVIEW:** Motion to approve the 2023 Meeting Calendar as presented made by C. Phillips; second by M. French. Vote carried unanimously in favor.

#### STAFF REPORTS

- **18. BOB BOLZ, CITY MANAGER:** City Manager Bolz provided his report in the agenda packet and reported the leak adjustment for the previous month was \$651.33.
- **19. ROBIN GAZAWAY, FINANCE ADMINISTRATOR:** Finance Director Gazaway presented the financial reports representing fund balances and activity provided through August 31, 2022.

#### EXECUTIVE SESSION

At 5:22 p.m. a motion to close regular session and go into executive session for potential/pending litigation was made by J. Walden; second by C. Phillips. Vote carried unanimously in favor.

At 5:28 p.m. a motion to close executive session was made by C. Phillips; second by J. Walden. Vote carried unanimously in favor.

Motion to resume regular session was made by M. French; second by J. Walden. Vote carried unanimously in favor.

#### ADJOURNMENT:

At 5:30 p.m. a motion to adjourn the meeting was made by J. Walden; second by C. Phillips. Vote carried unanimously.

### Approved this 3<sup>rd</sup> day of October 2022.

By: CITY OF DAWSONVILLE

Mike Eason, Mayor

Caleb Phillips, Councilmember Post 1

William Illg, Councilmember Post 2

John Walden, Councilmember Post 3

Mark French, Councilmember Post 4

Attest:

Beverly A. Banister, City Clerk

#### STATE OF GEORGIA COUNTY OF DAWSON

#### AFFIDAVIT OF THE CITY OF DAWSONVILLE MAYOR AND COUNCIL

Mayor Michael Eason, Councilmember John Walden, Councilmember Caleb Phillips, Councilmember William Illg, and Councilmember Mark French; being duly sworn, state under oath that the following is true and accurate to the best of their knowledge and belief:

- 1. The City of Dawsonville Council met in a duly advertised meeting on September 19, 2022.
- 2. During such meeting, the Board voted to go into closed session.
- The executive session was called to order at  $5^{2^2}$ p.m. 3.
- The subject matter of the closed portion of the meeting was devoted to the following matter(s) within 4. the exceptions provided in the open meetings law: (check all that apply)

Consultation with the City Attorney or other legal counsel to discuss pending or potential litigation, settlement, claims, administrative proceedings, or other judicial actions brought or to be brought by or against the City or any officer or employee or in which the City or any officer or employee may be directly involved as provided in O.C.G.A. § 50-14-2(1);

Discussion of tax matters made confidential by state law as provided by O.C.G.A. § 50-14-2(2) and \_\_\_\_\_

Discussion of future acquisition of real estate as provided by O.C.G.A. § 50-14-3(b)(1);

Discussion or deliberation on the appointment, employment, compensation, hiring, disciplinary action or dismissal, or periodic evaluation or rating of a City officer or employee as provided in O.C.G.A. § 50-14-3(b)(2);

Other \_\_\_\_\_ as provided in: \_\_\_\_

This 19th day of September; By the City of Dawsonville, Mayor/and Council:

e Eason, Mayor

Caleb Phillips, Councilmember Post #1

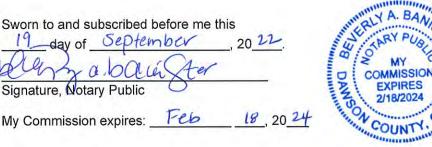
William Illg, Councilmember Post #2

John Walden, Councilmember Post #3

Mark French, Councilmember Post #4 A. BANIS

EXPIRES

COUNT



Current **Division III section 1.11 Storm water Infrastructure Dedication** requirements will be eliminated and the following storm water infrastructure inspections will be required.

#### Division III section 1.11 Storm Water Infrastructure Inspection.

- 1. The owner, developer and or contractor shall provide the City of Dawsonville 24 hour notification to perform a pre-construction meeting.
- 2. Owner, developer and or contractor will notify the City of Dawsonville 24 hour to conduct a visual storm drain inspection of each individual line prior to backfill installation.
- 3. The required visual inspections will verify foundation stability, depth, slope, type of pipe, class of pipe, bell to spigot installation, location and manhole structure exterior connection and seal.
- 4. The City will perform the storm drain inspection within 48-hour.
- 5. The City will allow a third-party storm drain inspection if one of the two following conditions apply and receives City approval for the third-party inspection. Condition number one: Unfavorable weather conditions expected within 48-hour. Condition number two: City representative can not perform the required inspection within 24 hours.
- 6. Visual inspection of all storm water infrastructure will be required prior to final plat approval.
- 7. Visual inspection of all storm water infrastructure will be required prior to bond release and City dedication.
- 8. For any infrastructure presented for dedication to the City of Dawsonville which infrastructure was inspected, if at all, prior to January 1, 2020, video inspection is required before the infrastructure may be accepted. For such video inspections:
  - a. Video inspection will verify the pipe line is clear of debris, obstructions, ponding water, exposed reinforcing steel, joint offset, joint separation, rips, tears, cracks, holes, deviation from line and grade, and other anomalies not consistent with properly installed pipe.
  - b. Any and all matters which need repair as shown on video inspection shall be repaired before the City will accept dedication.



# SUBJECT: APPROVE USE OF MEMORIAL GARDENS FOR 2<sup>ND</sup> ANNUAL GHOST WALK

CITY COUNCIL MEETING DATE: 10/03/2022

BUDGET INFORMATION: GL ACCOUNT #\_\_\_\_\_

Funds Available from: \_\_\_\_\_ Annual Budget \_\_\_\_\_ Capital Budget Other\_\_\_\_\_

Budget Amendment Request from Reserve: \_\_\_\_Enterprise Fund \_\_\_\_General Fund

# PURPOSE FOR REQUEST:

TO REQUEST APPROVAL FOR THE DAWSONVILLE HISTORY MUSEUM TO UTILIZE MEMORIAL GARDENS DURING THEIR 2<sup>ND</sup> ANNUAL GHOST WALK ON OCTOBER 28<sup>TH</sup> AND 29<sup>TH</sup> FROM 7:00 PM TO 9:00 PM APPROXIMATELY.

HISTORY/ FACTS / ISSUES:

- CITY COUNCIL APPROVED THE USE OF MEMORIAL GARDENS IN 2021 FOR THE SAME PURPOSE
- TOUR INCLUDES THE GEORGIA RACING HALL OF FAME, OLD DAWSON COUNTY JAIL, DAWSON COUNTY'S HISTORIC COURTHOUSE AND MEMORIAL GARDENS.
- PERMIT HAS BEEN SUBMITTED AND IS IN THE APPROVAL PROCESS. NO ROAD CLOSURES ARE NECESSARY AND NO ISSUES ARE EXPECTED FOR FINAL APPROVAL.

OPTIONS:

RECOMMENDED SAMPLE MOTION:

REQUESTED BY: Bob Bolz, City Manager\_\_\_\_



# DAWSONVILLE CITY COUNCIL EXECUTIVE SUMMARY FOR AGENDA ITEM #\_\_\_8\_\_\_\_

# SUBJECT: INTRODUCE THE DOWNTOWN DEVELOPMENT MANAGER – AMANDA EDMONDSON

CITY COUNCIL MEETING DATE: 10/03/2022

BUDGET INFORMATION: GL ACCOUNT #\_\_\_\_\_

Funds Available from: \_\_\_\_\_ Annual Budget \_\_\_\_\_ Capital Budget Other\_\_\_\_\_

Budget Amendment Request from Reserve: \_\_\_\_Enterprise Fund \_\_\_\_General Fund

# PURPOSE FOR REQUEST:

### TO INTRODUCE AMANDA EDMONDSON AS THE CITY'S NEW DOWNTOWN DEVELOPMENT MANAGER

HISTORY/ FACTS / ISSUES:

OPTIONS:

**RECOMMENDED SAMPLE MOTION:** 

REQUESTED BY: Bob Bolz, City Manager\_\_\_\_\_



# DAWSONVILLE CITY COUNCIL EXECUTIVE SUMMARY FOR AGENDA ITEM # <u>9</u>

SUBJECT:	ANX-C2200122	
CITY COUNCIL MEETING DATE:	10/03/2022	

## BUDGET INFORMATION: GL ACCOUNT #\_\_\_\_\_

Funds Available from:	Annual Budget:	Capital Budget: Oth	ier
Budget Amendment Regu	est from Reserve:	Enterprise Fund:	General Fund

#### PURPOSE FOR REQUEST: PUBLIC HEARING

ANX-C2200122: Jim Chapman Communities, Inc has petitioned to annex into the city limits of Dawsonville the 3-acre tract known as TMP 093 046 (tract 2), Located at 922 Hwy 53 East, with a County Zoning of RSR (Residential Sub-Rural) to City Zoning R6 (Multiple-Family Residential District). Public Hearing Dates: Planning Commission on September 12, 2022, and City Council on October 3, 2022. City Council for a decision on October 17, 2022.

#### HISTORY/ FACTS / ISSUES:

- 1. Property is Post 2 City Council Member in William Illg District.
- 2. The subject property adjoins City Zoned R6 District to the South, County RSR District to the East, City R1 District to the West and County RSR district to the North.
- 3. Applicant is requesting to annex three (3) acres.
- 4. City water and sewer infrastructure adjoins property.
- 5. City water and sewer capacity is available.
- 6. Applicant submitted data to the Planning Department for the DRI submission and is currently in the review process by GMRC. Final decision will be delayed until DRI review is completed.
- 7. Planning Commission denied the request on 09.12.2022.
- 8. Dawson County Board of Commissioners heard the request no 09.16.2022. The board voted to send a letter objecting the proposed annexation to Mayor and City Council.

#### OPTIONS:

### RECOMMENDED SAMPLE MOTION:

DEPARTMENT: Planning and Zoning

REQUESTED BY: Diane Callahan

Planning Department 415 Highway 53 E. Suite 100 Dawsonville, Georgia 30534



(706) 265-3256 www.dawsonville-ga.gov

Date: 09.16.2022

To: Mayor and Council

Reference: ANX C2200122 Planning and Zoning Department Summary

The planning and Zoning Department has provided the following pertinent information to help you decide on this request:

- 1. Property is in Post 2 City Council Member William Illg District.
- 2. The subject property adjoins City Zoned R6 District to the South, County RSR District to the East, City R1 District to the West and County RSR district to the North.
- 3. Applicant is requesting to annex three (3) acres.
- 4. City water and sewer infrastructure adjoins property.
- 5. City water and sewer capacity is available.
- 6. Applicant submitted data to the Planning Department for the DRI submission and is currently in the review process by GMRC. Final decision will be delayed until DRI review is completed.
- 7. Planning Commission denied the request on 09.12.2022.
- 8. Dawson County Board of Commissioners heard the request no 09.16.2022. The board voted to send a letter objecting the proposed annexation to Mayor and City Council.

Kindest regards,

Dhie Callahn

Diane Callahan Interim Planning Director

Planning and Zoning Department 415 Highway 53 E. Suite 100 Dawsonville, Georgia 30534



706.265.3256 www.dawsonville-ga.gov

August 11, 2022

#### Via Certified Mail 7019 1640 001 9716 2112

Mr. Billy Thurmond Board of Commissioners Dawson County 25 Justice Way, Suite 2313 Dawsonville, GA 30534

#### Re: Annexation of Property of JSW Gee Corner, LLC; ANX C2200122; TMP 093 046; 922 Hwy 53 West

Dear Mr. Thurmond,

Please be advised that the City of Dawsonville, Georgia, pursuant to authority vested in the Mayor and Council of the City of Dawsonville by Article 2, Chapter 36, Title 36 of the Official Code of Georgia Annotated, received a petition to annex the property referenced above. This annexation petition will be heard during the public hearing segment of the following: Planning Commission September 12, 2022 and City Council meeting October 3, 2022.

This letter has been sent to you by certified mail, return receipt requested, upon receipt of the Annexation Petition of JSW Gee Corner, LLC. Said notice is in compliance with O.C.G.A. §§ 36-36-6, and 36-36-111. Please see the attached copy of the annexation petition and map of the site proposed to be annexed, which are included to allow you to identify the subject area, as well as the intended use of the property.

Pursuant to O.C.G.A. § 36-36-113, upon receipt of this notice Dawson County has thirty (30) calendar days to raise an objection to the proposed use of the above referenced land, and to specify the basis therefore.

Finally, in accord with O.C.G.A. § 36-36-7, Dawson County has five (5) business days from the receipt of this notice to notify the City that there are County-owned public facilities within the area proposed for annexation.

Thank you for your time and attention to this matter, and I look forward to hearing from you regarding this issue. If I may be of assistance in this regard or any other, please do not hesitate to contact me.

Sincerely,

Stacy Harris Zoning Administrative Assistance

Enclosures cc: David Headley, County Manager Dawson County Attorney

	City of Dav Planning and Zon 415 Highway 53 E Dawsonville, Phone: (706)	East, Suite 100 GA 30534	Annexation Pet Application	
ZONING AMENDM		ES RECEIVED ? YES NO		1 2 2022 4 Zau
	Jim Chapman Communities, Inc.		State: CA	7in: 10110
	oerland Parkway SE, Suite 130	City: Atlanta	State: GA	Zip: 30339
Cell Number(s)				
	ame(s): JSW Gee Corner, LLC	<u>0</u> 1 - 0	Chatter C.L	7
Address: 922 Hwy.			State: GA	Zip: 30534
	to be Annexed: 922 Hwy. 53 E			
		Acre(s): 3 _Survey Record		
Land Lot #: 56: 51	District #: _4Section a	# Legal Recorded in De	ed Book # Page #:	
Current Use of Prop	perty: Residential	and the second sec	the state	0
County Zoning Clas	sification: RSR	City Zoning Classification	on: R-6	
added to the incom	porated area of Dawsonville	neral Provisions Sec. 708. And shall automatically be class y amendment to the official zo	fied R-1 (single-famil	rea subsequent ly residential
Petition MUST inclu	ide a completed application wi	ith signatures and ALL attachm	ents.	

- An 8 ½ x 11 copy of the current RECORDED BOUNDARY SURVEY of said property showing the contiguity of said property to the existing corporate limits of the City of Dawsonville, GA.
- A copy of the current metes and bounds LEGAL DESCRIPTION that matches the boundary survey of the property being annexed.
- Survey must be signed and sealed by a Registered Land Surveyor.
- □ Survey must be signed, stamped recorded by Dawson County Clerk's of the Court office.

	FEE SCHEDULE	* Fee Wav	* Fee WavIED By CC or	
Annexation Fee		\$300.00	12.202	
Administrative fee		\$100.00		
Public Notice Certified Mail	\$7.33	per adjacent property ow	ner	

Office Use Only	
Date Completed Application Rec'd: 8.10.2022	Amount Paid: S CK Cash
Date of Planning Commission Meeting: 09.12.0022	Dates Advertised:
Date of City Council Meeting 0,03.2022	Rescheduled for next Meeting:
Date of City Council Meeting: 10.17.2022	Approved by City Council: YES NO
Approved by Planning Commission: YES NO	Postponed: YES NO Date:



City of Dawsonville 415 Highway 53 East, Suite 100 Dawsonville, GA 30534 Phone: (706) 265-3256

Annexation Petition into the City of Dawsonville, GA

Property Owner(s) Authorization

I / We the undersigned, being the owner(s) of real property of the territory described herein as 922 Hwy 53, Dawsonville, GA / 093 046 (Address/Tax Map Parcel) respectfully

<u>922 Hwy 53, Dawsonville, GA / 093 046</u> (Address/Tax Map Parcel), respectfully request that the Mayor and City Council of the City of Dawsonville, Georgia annex this property into the City and extend the City boundaries to include the same.

Upon signature of this document, I / We the undersigned certify that all the information provided is true and accurate to the best of our knowledge.

**Property Owner Signature** 

Property Owner Signature

Applicant Signature

**Applicant Signature** 

William S. Wade (JSW Gee Corner, LLC) Property Owner Printed Name

**Property Owner Printed Name** 

Carter Richardson (Jim Chapman Communities, Inc.) Applicant Printed Name

**Applicant Printed Name** 

State of Georgia County of Dekealo Co

Sworn to and subscribed before me day of her this

Notary Public, State T Georgi Melanle Ruth Burruss Notary Public, DeKalb County, Georgia My Commission Expires 05/18/2025

Notary Seal

Annexation Application Received Date Stamp: Fees by p. 20.21 Wavied on p. 20.21	Rec'd Rec'd Rec'd Rec'd	Current Bounda Current Bounda Legal Descriptic ARC Population	ry Survey			ţ
Planning Commission Meeting Date (if rezone Dates Advertised:	):					
1st City Council Reading Date:						
2 <sup>nd</sup> City Council Reading Date:			Approved:	YES	NO	
Date Certified Mail to:County Board	d of Commissioners & (	Chairman	_County Ma	nager _	_	_County Attorney
Letter Received from Dawson County	Date:					

Revised 03.2021



Application # ANX C2200122

TMP#: 093 046

It is the responsibility of the applicant to provide a list of adjacent property owners. This list must include the name and address of anyone who has property touching your property or who has property directly across the street from your property. (Use additional sheets if necessary)

\*\*Please note\*\* This information should be obtained at the Planning Office using the Tax Map Parcel Map listing any parcel(s) adjoining or adjacent to parcel where rezone is being requested.

TMP # 093 033 1	. Name(s): B & K Turner Family, LLP
	Address: 1090 Oakhaven Drive
	Rosewell, GA 30075
TMP # 093 022 2	. Name(s): Peachtree Village Partners, LLC
	Address: 2905 Piedmont Road, Suite C
	Atlanta, GA 30305
TMP # 093 040 3	Name(s): Peachtree Dekalb Plaza, LLC
	Address: 2905 Piedmont Road, Suite A
- 12	Atlanta, GA 30305
TMP # 093 0634	Name(s): TYPAR K ESTAte
	Address: 1090 Ogkhaven Dr
	Roswell 64. 30075
TMP # 093046	
	Address: 3825 Pace welk SE Ste 100
-2 117	ATL GA 303,39
TMP # 09309 - 6	Name(s): Anderson curt's 4 mesord karen
	Address: 2120 perimeter Rd
	Dawson ville Cry. 30534
TMP #7	. Name(s):
	Address:

THE APPLICANT, OR DESIGNED AGENT, **MUST\*** ATTEND THE PUBLIC HEARINGS FOR THE CONDITIONAL USE REQUEST TO BE CONSIDERED.

**\*NOTE:** if the applicant of a petition before the Planning Commission fails to attend the public hearing, then the Planning Commission may deny the subject petition or may require re-advertisement of the subject petition at the expense of the applicant.





#### ANNEXATION / REZONING LETTER OF INTENT

Mayor and City Council Planning Commission City of Dawsonville, Georgia

To Whom It May Concern:

Jim Chapman Communities ("JCC") respectfully submits this Letter of Intent outlining our proposed rezoning for 30.98 acres (Parcels 093-043/Tract 3, 093-044/Tract 2 and 093-047/Tract 1) located at the Westerly intersection of GA Highway 53 and Perimeter Road. The properties consist of 30.98 acres (zoned R-1) located in the City of Dawsonville (the "City") and 3 acres zoned RSR (Part of former Parcel 093 046 which has been subdivided / Tract 2) located in Dawson County that will need to be annexed into the City for a total of 33.98 acres. Across from the site on GA Highway 53 are properties zoned HB, and Farmington Woods Apartments (Zoned R-6) are across the street on Perimeter Road having a SF range of 829-1,286sf. The properties that comprise our proposed rezoning are designated as "Mixed Use / PUD" on the Dawsonville Character Area Map.

JCC is requesting a zoning classification change to R-6 to allow for 195 attached rental homes yielding a density of 5.74 units per acre. The community will have private streets, 30' measured from back of curb to back of curb along with a 50' Utility and Access Easement, and will have two gated access points. The main gated entrance will be on Perimeter Road, and the second entrance will be a "right in – right out" on GA Highway 53. The amenities will include a 4,000 square foot club house, a pool and a dog park.

The homes will range in size from 1,000 to 1,500 square feet, having a mixture of 2 and 3 bedrooms. The project will contain approximately 136 units that are 1,025 sf / 2BR (70%), 39 units that are 1,421 sf/ 3 BR (20%) and 20 units that are 1,466 sf/ 3 BR (10%). In addition to having single car garages with driveways for parking, additional parking areas are provided within the community. All homes will have primary suites on the main floor, and we have found that approximately 40-50% of our customers are 50 years old and older. The smaller homes tend to deter large families, and instead appeals to singles, young couples without children, and working professionals.

This community will be based on the same concept of The Cottages at Dawson Ridge that we recently built in 2021, a highly successful community located just 5.5 miles to the Southeast on Lumpkin Campground Road. The need for this type of housing is proven, and JCC feels this property is a great location to serve this area and will have a beneficial economic impact to the retail services in Dawsonville.

Respectfully,

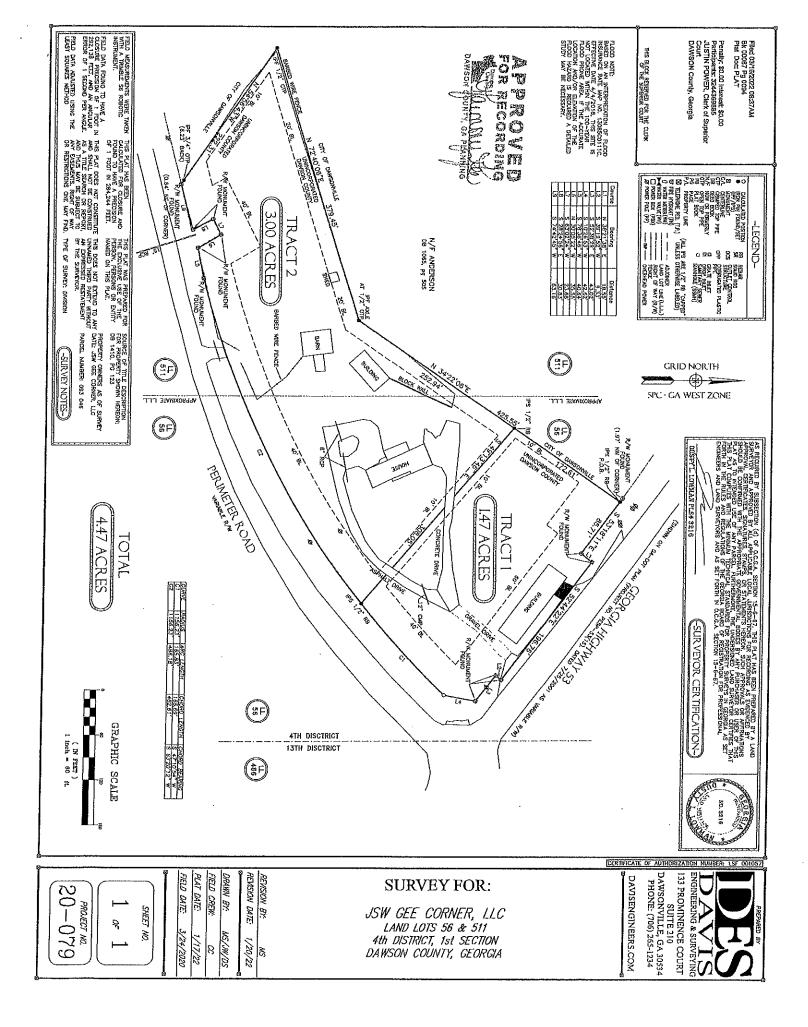
Carter Richardson

Vice President of Land Acquisition Jim Chapman Communities, Inc.

2700 CUMBERLAND PARKWAY SE | SUITE 130 | ATLANTA, GA 30339 | p 404-623-7272

www.JimChapmanCommunities.com

\*Applicant prefers to annex 3.00 acres of the parcel and maintain 1.47 acres within the County as shown on the attached Survey; Tract 2 of the attached Survey to be annexed.



William S. Wade, Manager  $\mathcal{L}^{\mathcal{J}}$ 

#### ESCROW AGENT:

Date: \_\_/\_\_/ 2021 Company Old Republic Netional Title Insurance

By:

Carrie Tullis

#### EXHIBIT "A-1"

#### **Description of the Land**

All that tract or parcel of land lying and being in Land Lot 511 and in Fractional Land Lot 56 of the 4<sup>th</sup> District, 1<sup>st</sup> Section of Dawson County, Georgia, being 4.47 acres as depicted on a survey prepared for JSW Gee Comer, LLC, dated April 29, 2020, by Davis Engineering & Surveying, bearing the seal and certification of Jason D. Watkins, Georgia Registered Land Surveyor No. 3241, which survey is incorporated herein by reference for a more complete description of the Property, and said Property being more particularly described as follows in accordance with said survey:

BEGINNING at a Right of Way Monument located on the Northernmost point of the mitered intersection of the Southwesterly right of way line of Georgia Highway 53 (variable right of way) and the Northwesterly right of way line of Perimeter Road (variable right of way); thence proceed along the mitered intersection of the Southwesterly right of way line of Georgia Highway 53 and the Northwesterly right of way line of Penimeter Road South 10 degrees 26 minutes 53 seconds West a distance of 42.62 feet to a point which is the Southermost point of the mitered intersection of the Southwesterly right of way line of Georgie Highway 53 and the Northwesterly right of way line of Perimeter Road; thence proceed along the Northwesterly right of way line of Perimeter Road the following courses and distances: along the arc of a 1156.23-foot radius curve to the right, an arc distance of 652.01 feet to a Right of Way Monument (said arc being subtended by a chord bearing South 59 degrees 13 minutes 41 seconds West, a chord distance of 643.41 feet); South 78 degrees 36 minutes 46 seconds West a distance of 40.64 feet to a Right of Way Monument; North 30 degrees 05 minutes 22 seconds West a distance of 35.55 feet to a Right of Way Monument; South 63 degrees 02 minutes 24 seconds West a distance of 23.68 feet to a Right of Way Monument; South 28 degrees 24 minutes 56 seconds East a distance of 30.83 feet to a Right of Way Monument; and, South 72 degrees 42 minutes 45 seconds West a distance of 63.16 feet to a point; thence leave the Northwesterly right of way line of Perimeter Road and proceed North 54 degrees 56 minutes 43 seconds West a distance of 222.31 feet to an Iron Pin Found (1/2" Crimp Top Pipe); thence proceed North 72 degrees 40 minutes 06 seconds East a distance of 379.45 feet to an Iron Pin Found (Axle at 1/2" Open Top Pipe); thence proceed North 34 degrees 22 minutes 06 seconds East a distence of 425.55 feet to an Iron Pin Set (1/2" Rebar) on the Southwesterly right of way line of Georgia Highway 53; thence proceed along the Southwesterly right of way line of Georgia Highway 53 the following courses and distances: South 53 degrees 18 minutes 11 seconds East a distance of 85.71 feet to a Right of Way Monument; North 38 degrees 21 minutes 38 seconds East a distance of 18,55 feet to a Right of Way Monument; South 52 degrees 44 minutes 22 seconds East a distance of 196.76 feet to ليهر

JBC

a Right of Way Monument; South 39 degrees 19 minutes 52 seconds West a distance of 9.33 feet to a Right of Way Monument; and, South 52 38 29 seconds East a distance of 43.02 feet to a Right of Way Monument located on the on the Northermost point of the mittered intersection of the Southwesterly right of way line of Georgia Highway 53 and the Northwesterly right of way line of Perimeter Road and the POINT OF **BEGINNING**.

#### EXHIBIT "A-2"

#### **Depiction of the Property**

ber Sec

1031303v1

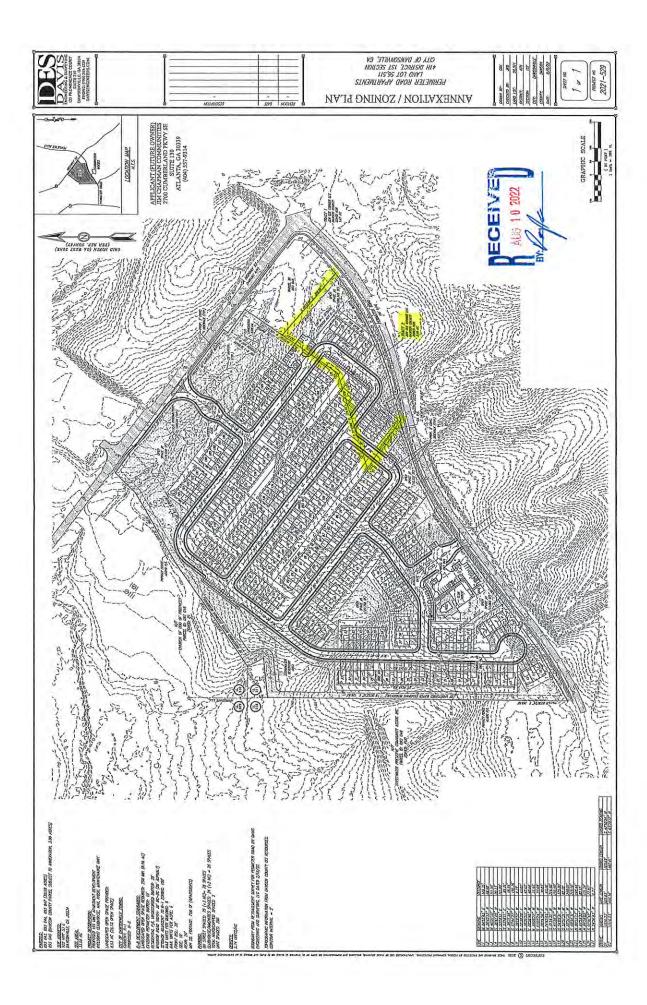
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[To be attached hereto.]

All that tract or parcel of land lying and being in land lots 56 and 511, 4<sup>th</sup> District, 1<sup>st</sup> Section, Dawson County Georgia being more particularly described as follows:

Beginning at a right of way monument on the southwestern right of way of Georgia Highway 53 (having a variable right-of-way) as found northwesterly from the intersection of the southwesterly right of way of Georgia Highway 53 and the northwesterly right of way of Perimeter Road (having a variable right-ofway); running thence along the southwestern right-of-way of Georgia Highway 53 South 53 degrees, 18 minutes, 11 seconds East a distance of 1.97 feet to a ½ inch rebar set; running thence away from the southwesterly right-of way of Georgia Highway 53 South 34 degrees, 22 minutes, 06 seconds West a distance of 172.61 feet to a ½ inch rebar set (being the "TRUE POINT OF BEGINNING"); running thence South 49 degrees, 13 minutes, 46 seconds East a distance of 308.05 feet to a 1/2 inch rebar set on the northwesterly right-of-way of Perimeter Road; running thence along the northwesterly right of way of Perimeter Road along a curve with a radius of 1156.23 degrees an arc length of 486.18 feet, said curve being subtended by a chord running South 63 degrees, 20 minutes, 12 seconds West a chord distance of 482.61 feet to a right-of-way monument found; running thence South 78 degrees, 36 minutes, 46 seconds West a distance of 40.64 to a right-of-way monument found; running thence North 30 degrees, 05 minutes, 22 seconds West a distance of 35.55 to a right-of-way monument found; running thence South 63 degrees, 02 minutes, 24 seconds West a distance of 23.68 to a right-of-way monument found; running thence South 28 degrees, 24 minutes, 56 seconds East a distance of 30.83 feet to a right-of way monument found; running thence along the northwesterly right of way of Perimeter Road South 74 degrees, 42 minutes, 45 seconds West a distance of 63.16 to a ¾ open top pipe found; running thence away from the northwesterly right-of-way of Perimeter Road North 54 degrees, 56 minutes, 43 seconds West a distance of 222.31 feet to a ½ crimped top pipe found; running thence North 72 degrees, 40 minutes, 06 seconds East a distance of 379.45 feet to a ½ inch open top pipe placed; running thence North 34 degrees, 22 minutes, 06 seconds East a distance of 252.94 feet to a ½ inch rebar set and the TRUE POINT OF BEGINNING being a three acre tract and that parcel of land shown as TRACT 2 on that survey dated January 17, 2022, revised on January 20, 2022, completed for JSW GEE Corner, LLC by Dusty L Lowman of Davis Engineering & Surveying registered land surveyor no. 3216.





# 



Parcel ID: 093 046 Alt ID: 6379 Owner: JSW GEE CORNER LLC Acres: 4.62 Assessed Value: \$310500

Date created: 1/13/2022 Last Data Uploaded: 1/12/2022 10:40:10 PM



### **City Council:**

John Walden Caleb Phillips William Illg Mark French



Mike Eason Mayor

Robert Bolz City Manager

Beverly Banister City Clerk

Diane Callahan Interim Planning Director

Stacy Harris Zoning Admin Assistant

# Planning Commission: Randy David, Chairperson Matt Fallstrom, Post 1 Josh Nichols, Post 2 Sandy Sawyer, Post 3 Anna Tobolski, Post 4

415 Highway 53 East, Suite 100 Dawsonville, GA 30534 Office (706)265-3256 <u>www.dawsonville-ga.gov</u>

# PUBLIC NOTICE

The following public hearings will be heard by the City of Dawsonville Planning Commission at 5:30 p.m. and/or the City Council beginning at 5:00 p.m. respectively on the dates indicated below. Public hearings are heard in the Council Chambers on the second floor at City Hall located at 415 Hwy 53 East, Dawsonville, Georgia 30534. The public is invited to participate.

<u>ANX-C2200122</u>: Jim Chapman Communities, Inc has petitioned to annex into the city limits of Dawsonville the 3-acre tract known as TMP 093 046 (tract 2), Located at 922 Hwy 53 East, with a County Zoning of RSR (Residential Sub-Rural) to City Zoning R6 (Multiple-Family Residential District). Public Hearing Dates: Planning Commission on September 12, 2022, and City Council on October 3, 2022. City Council for a decision on October 17, 2022.

**ZA-C2200123:** Jim Chapman Communities, Inc has petitioned a zoning amendment for TMP 093 043, 093 044, and 093 047; Located at 2120 Perimeter Road and 922 Hwy 53 East from R1 (Restricted Single-Family Residential District) to R6 (Multiple-Family Residential District). Public Hearing Dates: Planning Commission on September 12, 2022, and City Council October 3, 2022. City Council for a decision on October 17, 2022.

<u>VAR-C2300013</u>: Paul Winschuh has requested a reduction in setbacks along the rear and side property lines for TMP 083 038 046, Located at 375 Angela Lane. Public Hearing Date: Planning Commission on September 12, 2022.

If you wish to speak on the requests, please contact City Hall for a CAMPAIGN DISCLOSURE form. **This form is** only needed if you have made campaign contributions in the amount of \$250.00 or more within 2 years prior to this date.

Those persons with disabilities who require reasonable accommodations in order to allow them to observe and/or participate in this meeting or who have questions regarding the accessibility of the meeting, should contact the Clerk at Dawsonville City Hall at 706-265-3256 at least twa (2) business days prior to the meeting.



Billy Thurmond Chairman

Sharon Fausett Commissioner District 1

Chris Gaines Commissioner District 2

Tim Satterfield Commissioner District 3

Emory Dooley Commissioner District 4

David Headley County Manager

Kristen Cloud County Clerk

Dawson County Government Center 25 Justice Way Suite 2313 Dawsonville, GA 30534 Phone 706-344-3501 Fax 706-344-3504

# DAWSON COUNTY BOARD OF COMMISSIONERS

September 15, 2022

### VIA OVERNIGHT DELIVERY and EMAIL

City of Dawsonville c/o Mayor Mike Eason 415 Highway 53 East, Suite 100 Dawsonville, Georgia 30534

RE: Annexation/Rezoning C2200122 Annexation Tax Parcel 093 046 (Tract 2) Rezoning Tax Parcels 093 043, 093 044, 093 047 922 Hwy 53 West, Dawsonville Applicant: Jim Chapman Communities, Inc. Owner: JSW Gee Corner, LLC

Honorable Mayor Eason:

This letter is written to communicate the request of Dawson County, Georgia ("County") that the City of Dawsonville, Georgia ("City") deny the Annexation Petition Application submitted by Jim Chapman Communities, Inc. ("Applicant") with respect to a three-acre parcel ("County parcel") owned by JSW Gee Corner, LLC ("JSW") and the associated rezoning of a total of 33.98 acres (which includes the County parcel) to the City's R-6 zoning classification for a proposed 195 unit, attached rental home development ("Development"). As shown herein, the County does not believe that the proposed Development is appropriate in this location and urges the City to deny it.

As I am sure the City is aware, the proposed Development is located essentially at the corner of Perimeter Road and Highway 53. This intersection is already very congested, particularly during the start and end of school hours due to the location of Dawson County High School and Robinson Elementary School in the close vicinity of the Development. Adding an additional 195 residential units so close to this intersection and two schools, with entrances on both roads, will undeniably exacerbate the traffic issues in the area and implicate heightened safety concerns for all that must travel through the intersection.

Furthermore, this proposal is not in keeping with the County's allowed and planned development of the area. The County's existing RSR zoning provides for a maximum of one unit per acre; far less than the proposed development contemplates a density of 5.74 units per acre. Similarly, the County has not

SEP 19 2022 BY: blauister

September 15, 2022 Page 2

planned for such residential density in the future. The County's Future Land Use Map shows this property as Light Industrial, although most of the property in the near vicinity is identified as Sub Rural Residential. Clearly, the proposed Development does not match the planned development for the area.

Although the County has opted not to initiate the formal annexation objection process pursuant to O.C.G.A. § 36-36-110, *et seq.*, in light of the foregoing, the County strongly urges and requests that the City deny the annexation and deny the proposed rezoning that would allow this excessive Development. This project is simply not in the interest of the citizens of the City and the County that reside in the area or that traverse the roads and must pass through the Perimeter Road/Highway 53 intersection.

The Board appreciates the City's consideration of the County's concerns.

Sincerely,

Billy Thurmond, Chairman Dawson County Board of Commissioners

cc: Dawsonville City Council (via email only) Dawson County Board of Commissioners (via email only) Angela E. Davis, Esq., County Attorney (via email only)



# DAWSONVILLE CITY COUNCIL EXECUTIVE SUMMARY FOR AGENDA ITEM # <u>10</u>

SUBJECT:	ZA-C2200123
CITY COU	NCIL MEETING DATE: 10/03/2022
BUDGET	INFORMATION: GL ACCOUNT #
	Funds Available from: Annual Budget: Capital Budget: Other Budget Amendment Request from Reserve: Enterprise Fund:General Fund

## PURPOSE FOR REQUEST: PUBLIC HEARING

ZA-C2200123: Jim Chapman Communities, Inc has petitioned a zoning amendment for TMP 093 043, 093 044, and 093 047; Located at 2120 Perimeter Road and 922 Hwy 53 East from R1 (Restricted Single-Family Residential District) to R6 (Multiple-Family Residential District). Public Hearing Dates: Planning Commission on September 12, 2022, and City Council October 3, 2022. City Council for a decision on October 17, 2022.

### HISTORY/ FACTS / ISSUES:

- 1. Property is in Post 2 City Council Member William Illg District.
- 2. Applicant is requesting to rezone property from R1 District (Restricted Single Family Residential District) to R6 District (Multiple-Family Residential District).
- 3. Applicant is requesting to rezone 33.98 acres.
- 4. Proposing 195 rental units with a density of 5.74/units per acres.
- 5. Proposing minimum 1,000 heated square foot rental units.
- 6. TMP 093 043 annexed into the city on January 9, 2005. TMP 093 044 and 093 047 annexed into the City September 9, 2013.
- 7. The subject property adjoins City zoned R6 district to the South, County RSR District to the east, City PUD District to the West and City R1 and HB District to the North.
- 8. 2018 Comprehensive Plan character area proposes mixed/multifamily use.
- 9. Adjoining Sweetwater Preserve subdivision density 3.11 units per acre.
- 10. Adjoining Farmington Woods apartment development is 5.98 units per acre.
- 11. Applicant submitted data to the Planning Department for the DRI submission and is currently in the review process by GMRC. Final decision will be delayed until DRI review is complete.
- 12. If approved the Planning Department recommends a no access easement adjoining Hwy 53 East and Perimeter Road frontage boundary.
- 13. If approved the Planning Department recommends the installation of sanitary lines and sewer

manholes up to Perimeter Road right-of-way for future sewer outfall service for parcels 093 041, 093 063 and 093 033.

- 14. If approved the Planning Department recommends that applicant donate funds for future intersection improvements at Perimeter Road and Hwy 9 South. Funds in the of \$1,000.00 per unit shall be donated prior to each building permit approval. Funds shall be eligible for future impact fee credit if the City adopts said fees in the future.
- 15. If approved the Planning Department recommends the applicant donate funds for the future intersection improvements at Perimeter Road and Hwy 53 East. Funds in the amount of \$500.00 per unit shall be donated prior to each building permit approval. Funds shall be eligible for future impact fee credit if the City adopts said fees in the future. Condition warranted due to proposed right turn movement of 230 vehicles/day is 92 % of 250 vehicles/day threshold. Study did not include future bypass road passenger and truck traffic.
- 16. If approved the Planning Department recommends the installation of a dedicated left turn lane on Perimeter Road and development driveway #1. Condition warranted due to proposed left turn movement of 215 vehicles/day is 86 % of 250 vehicles/day threshold. Study did not include future bypass road passenger and truck traffic. Sec 109.46 requires lane for safe operations.
- 17. Planning Commission denied the request on 09.12.2022.
- 18. Dawson County Board of Commissioners heard the request on 09.16.2022. The board voted to send a letter objecting the proposed annexation to Mayor and City Council.

OPTIONS:

RECOMMENDED SAMPLE MOTION:

DEPARTMENT: Planning and Zoning

REQUESTED BY: Diane Callahan

Planning Department 415 Highway 53 E. Suite 100 Dawsonville, Georgia 30534



(706) 265-3256 www.dawsonville-ga.gov

Date: 09.16.2022

To: Mayor and Council

**Reference:** ZA C2200123 Planning and Zoning Department Summary

The planning and Zoning Department has provided the following pertinent information to help you decide on this request:

- 1. Property is in Post 2 City Council Member William Illg District.
- 2. Applicant is requesting to rezone property from R1 District (Restricted Single Family Residential District) to R6 District (Multiple-Family Residential District).
- 3. Applicant is requesting to rezone 33.98 acres.
- 4. Proposing 195 rental units with a density of 5.74/units per acres.
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Kindest regards,

he Callahn

Diane Callahan Interim Planning Director

(California)	City of Dawsonville		
	415 Highway 53 East, Suite 10 Dawsonville, GA 30534 (706) 265-3256	00 Zoning Amende Application	
Application#: ZA-Ca	2200123		
Applicant Name(s): Jim Chapma	n Communities, Inc.		
Address: 2700 Cumberland Pa		Atlanta Zip: 30339	
Cell Phone:	Email:		,
Signature(s)		Date	
Property Address: 2120 Perimet	er Road; Dawsonville + 922 Hu	wy SJE	
	all: 53E to Perimeter Road; right to 2120 Per		
Tax Map Parcel #: _093-047; 093-0	046; 093-044; 093-043	Current Zoning: R-1 R	SR
LandLot(s): 56; 511	District:4	Section: 1st	-
Subdivision Name:		Lot#	_
Acres: 33.98	Current use of property: Single-family Residen	ntial	C'12
Has a past request of Rezone o	f this property been made before? No	If yes, provideZA# Arx 13-005	Pile
The applicant request:		SPX 01.	
	Conditional Use	permit for:	
Proposed use of property if rezon	ed: Multifamily Apartments.		
Residential #of lots proposed		ed(Include Conceptual PI	an)
Amenity area proposed Yes	, ifyes, what Clubhouse;	Pool	
	rea proposed:		
Utilities:(utilities readily availat	ole at the road frontage): 🔀 Water 🗴 Se	ewer 🗙 Electric _ Natural Gas	
Proposed Utilities:(utilities dev	eloper intends to provide) 🗴 Water 🗶 S	Sewer 🇙 Electric 🛛 Natural Gas	
	s: (Access to the development/area will be		
Roadname: Perimeter Road;		of Surface: Pavement	
• Failure to complete	all sections will result in rejection of appl	lication and unnecessary delays. ult in the postponement or denial of this ap	plica
J.	S	1/12/DECE	
Sign	ature of Applicant	Date JAN 1	2 202
Office Use Only		4	
Date Completed Applicat			sh
		Dates Advertised:	_
Date of City Council Mee		Approved by City Council: YES NO	

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Application # ZA C2200123

TMP#: 093 044

It is the responsibility of the applicant to provide a list of adjacent property owners. This list must include the name and address of anyone who has property touching your property or who has property directly across the street from your property. (Use additional sheets if necessary)

\*\*Please note\*\* This information should be obtained at the Planning Office using the Tax Map Parcel Map listing any parcel(s) adjoining or adjacent to parcel where rezone is being requested.

TMP #_093 048 •1.	Name(s): Sweetwater Preserve Community Association, Inc.
	Address: 2144 Buford Hwy.; Suite 110
	Buford, GA 30518
TMP # 093 016 • 2.	Name(s): Church of God of Prophecy
	Address: _ 680 Hwy. 53 E
	Dawsonville, GA 30534
TMP # 093 020 001 • 3.	Name(s): Bailey Towers, LLC
	Address: 32 Jack Heard Rd. , Suite 200
093 040 002 • 093 040 001 •	Dawsonville, GA 30534
TMP # 093 040 001 4.	Name(s): Peachtree Dekalb Plaza, LLC
093071	Address: 2905 Piedmont Road, Suite A
	Atlanta, GA 30305
TMP # 093 021 5.	Name(s): Geneva Bearden
	Address: P.O.Box 21
	Dawsonville, GA 30534
TMP # 093 022 6.	Name(s): Peachtree Village Partners, LLC
	Address: 2905 Pledmont Road, Sulte C
	Atlanta, GA 30305
TMP # 093 033 , 7.	Name(s): B & K Turner Family, LLP
	Address: 1090 Oakhaven Drive
	Roswell, GA 30075

Adjacent Property Owner notification of a zoning amendment request is required.

The complete names of all owners must be listed, if the owner is a partnership, the names of all partners must be listed, if a joint venture, the names of all members must be listed. If a separate sheet is needed to list all names, please have the additional sheet notarized also.

TMP # 093 041 8. Name(s): Farmington Woods LP Address: 3825 Paces Walk SE, Suite 100 Atlanta, GA 30339 The 094 DID Carl +Sandin Bynun 13 Ingram Dr. Dawsonville, GA30534

093 046 . JSW Gee Corner LLC 922 Hwy 53E Dawsonville GA 30534 4|Page

revised 01.04.2022



#### **City of Dawsonville**

415 Highway 53 East, Suite 100 Dawsonville, GA 30534 (706) 265-3256

Zoning Amendment Notice of R-A Adjacency

Notice of Residential-Agricultural District (R-A) Adjacency

Agricultural districts include uses of land primarily for active farming activities and result in odors, noise, dust, and other effects, which may not be compatible with adjacent development. Future abutting developers which are not in R-A land use districts shall be provided with this "Notice of R-A Adjacency" prior to administrative action on either the land use district or the issuance of a building or occupancy permit.

Prior to administrative action the applicant shall be required to sign this waiver which indicates that applicant understands that a use is ongoing adjacent to his use which will produce odors, noise, dust and other effects which may not be compatible with the applicant's development. Nevertheless, understanding the effects of the adjacent R-A use, the applicant agrees by executing this form to waive any objection to those effects and understands that his district change and / or his permits are issued and processed in reliance on his agreement not to bring any action asserting that the adjacent uses in the R-A district constitute a nuisance against local governments and adjoining landowners whose property is located in an R-A district.

This notice and acknowledgement shall be public record.

Applicant Signature forent McCan Date 1-10-22

Application Number:

SUBSCRIBED AND SWORN BEFORE ME ON THIS

20.22 DAY OF ADUM Notary Public, State of Georgia My Commission Expires: 5 31 2022 Notary Seal

ZAC22 00123



City of Dawsonville 415 Highway 53 East, Suite 100 Dawsonville, GA 30534 (706) 265-3256

Zoning Amendment Notice of R-A Adjacency

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This notice and acknowledgement shall be public record.

Signature of Applicant / Representative of Applicant

Sworn to and subscribed before me on this

day of Anuary 2022

Notary Public, State of Georgia

My Commission Expires: Sept. 16, 2023





#### **City of Dawsonville**

415 Highway 53 East, Suite 100 Dawsonville, GA 30534 (706) 265-3256 Zoning Amendment Authorization

#### **Property Owner Authorization**

I / We Karen A. and Harold McCord and Curtis R. Anderson hereby swear that I / we own the property located at (fill in address and/or tax map & parcel #) 796 Hwy 53 Parcel # 093 047, 2120 Perimeter Rd., Patrol # 093 044 and 2202 Perimeter Rd. Parcel #093 043 as shown

in the tax maps and/or deed records of Dawson County, Georgia, and which parcel will be affected by the request.

I hereby authorize the person(s) or entity(ies) named below to act as the applicant or agent in pursuit of the rezoning requested on this property. I understand that any rezone granted, and/or conditions or stipulations placed on the property will be binding upon the property regardless of ownership. The under signer below is authorized to make this application. The undersigned is aware that no application or reapplication affecting the same land shall be acted upon within 6 months from the date of the last action by the City Council.

Printed Name of Applicant or Agent Karen A. McCord, Harold McCord and Curtis R. Anderson
Signature of Applicant or Agent Rame, A. McCord, Harold McCord and Curtis R. Anderson
Date 1-10-22
Mailing Address 2120 Perimeter Rd.
City Dawsonville State Ga zip 30534

**Telephone Number** 

SUBSCRIBED AND SWORN BEFORE ME ON THIS

DAY OF January 20 22

ublic, State of

My Commission Expires: 5 31 2025



Notary Seal



City of Dawsonville

415 Highway 53 East, Suite 100 Dawsonville, GA 30534 (706) 265-3256 Zoning Amendment Authorization

#### Property Owner Authorization

1/11/0	JSW	GEE	CORNER,	LLC
			and the second sec	

hereby swear that I / we own the property

as shown

located at (fill in address and/or tax map & parcel #) 093 046

in the tax maps and/or deed records of Dawson County, Georgia, and which parcel will be affected by the request.

I hereby authorize the person(s) or entity(ies) named below to act as the applicant or agent in pursuit of the rezoning requested on this property. I understand that any rezone granted, and/or conditions or stipulations placed on the property will be binding upon the property regardless of ownership. The under signer below is authorized to make this application. The undersigned is aware that no application or reapplication affecting the same land shall be acted upon within 6 months from the date of the last action by the City Council.

Printed Name of Applicant or Agent	William S. Wade	
Signature of Applicant or Agent	WAIS West	Date_ 1.10.22
Mailing Address 922 Highway City Dawsonville	State GA	Zip 30534
Telephone Number _		

SUBSCRIBED AND SWORN BEFORE ME ON THIS

DAY OF	2022
VI Dogo Dot	2
Notary Public, State of Georg	DURINESS
	Melanle Ruth Burruss Notary Public, DeKalb County, Georgia My Commission Expires 05/18/2025
My Commission Expires:	- My Commercial

Notary Seal



#### **City of Dawsonville**

415 Highway 53 East, Suite 100 Dawsonville, GA 30534 (706) 265-3256

**Zoning Amendment Campaign Disclosure** 

**Disclosure of Campaign Contributions** (Applicant(s) and Representative(s) of Rezoning)

Pursuant to OCGA, Section 36-67 A-3. A, the following disclosure is mandatory when an applicant or any representation of application for rezoning has been made with two years immediately preceding the filing of the applicant's request for rezoning, campaign contributions aggregating \$250.00 or more to a local government official who will consider the application for rezoning.

It shall be the duty of the applicant and the attorney representing the applicant to file a disclosure with the governing authority of the respective local government showing the following:

1. Name of local official to whom campaign contribution was made:

None

2. The dollar amount and description of each campaign contribution made by the opponent to the local government official during the two years immediately preceding the filing of the application for the rezoning action and the date of each such contribution.

Amount \$\_-0-\_\_\_\_\_Date: \_\_\_\_\_

Enumeration and description of each gift when the total value of all gifts is \$250.00 or more made to the local government official during the 2 years immediately preceding the filing application for rezoning:

aren A. McCord Curtis R. anderson

Signature of Applicant / Representative of Applicant

1-10-22 Date

Failure to complete this form is a statement that no disclosure is required.



415 Highway 53 East, Suite 100 Dawsonville, GA 30534 (706) 265-3256

Zoning Amendment Campaign Disclosure

#### Disclosure of Campaign Contributions Applicant(s) and Representative(s) of Rezoning

Pursuant to OCGA, Section 36-67 A-3. A, the following disclosure is mandatory when an applicant or any representation of application for rezoning has been made with two years immediately preceding the filing of the applicant's request for rezoning, campaign contributions aggregating \$250.00 or more to a local government official who will consider the application for rezoning.

It shall be the duty of the applicant and the attorney representing the applicant to file a disclosure with the governing authority of the respective local government showing the following:

- 1. Name of local official to whom campaign contribution was made:
- The dollar amount and description of each campaign contribution made by the opponent to the local government official during the two years immediately preceding the filing of the application for the rezoning action and the date of each such contribution.

Amount \$

Date:

Enumeration and description of each gift when the total value of all gifts is \$250.00 or more made to the local government official during the 2 years immediately preceding the filing application for rezoning:

Signature of Applicant / Representative of Applicant

ne of Applicants Representative of Applicant

Failure to complete this form is a statement that no disclosure is required.

JIM CHAPMAN COMMUNITIES



### ANNEXATION / REZONING LETTER OF INTENT

Mayor and City Council Planning Commission City of Dawsonville, Georgia

To Whom It May Concern:

Jim Chapman Communities ("JCC") respectfully submits this Letter of Intent outlining our proposed rezoning for 30.98 acres (Parcels 093-043/Tract 3, 093-044/Tract 2 and 093-047/Tract 1) located at the Westerly intersection of GA Highway 53 and Perimeter Road. The properties consist of 30.98 acres (zoned R-1) located in the City of Dawsonville (the "City") and 3 acres zoned RSR (Part of former Parcel 093 046 which has been subdivided / Tract 2) located in Dawson County that will need to be annexed into the City for a total of 33.98 acres. Across from the site on GA Highway 53 are properties zoned HB, and Farmington Woods Apartments (Zoned R-6) are across the street on Perimeter Road having a SF range of 829-1,286sf. The properties that comprise our proposed rezoning are designated as "Mixed Use / PUD" on the Dawsonville Character Area Map.

JCC is requesting a zoning classification change to R-6 to allow for 195 attached rental homes yielding a density of 5.74 units per acre. The community will have private streets, 30' measured from back of curb to back of curb along with a 50' Utility and Access Easement, and will have two gated access points. The main gated entrance will be on Perimeter Road, and the second entrance will be a "right in – right out" on GA Highway 53. The amenities will include a 4,000 square foot club house, a pool and a dog park.

The homes will range in size from 1,000 to 1,500 square feet, having a mixture of 2 and 3 bedrooms. The project will contain approximately 136 units that are 1,025 sf / 2BR (70%), 39 units that are 1,421 sf/ 3 BR (20%) and 20 units that are 1,466 sf/ 3 BR (10%). In addition to having single car garages with driveways for parking, additional parking areas are provided within the community. All homes will have primary suites on the main floor, and we have found that approximately 40-50% of our customers are 50 years old and older. The smaller homes tend to deter large families, and instead appeals to singles, young couples without children, and working professionals.

This community will be based on the same concept of The Cottages at Dawson Ridge that we recently built in 2021, a highly successful community located just 5.5 miles to the Southeast on Lumpkin Campground Road. The need for this type of housing is proven, and JCC feels this property is a great location to serve this area and will have a beneficial economic impact to the retail services in Dawsonville.

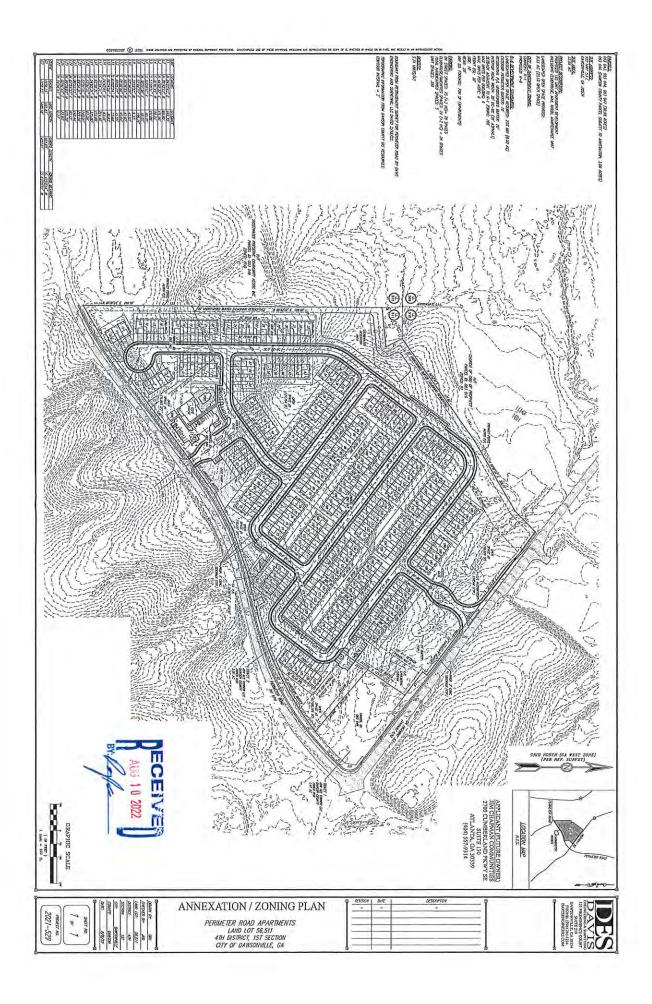
Respectfully,

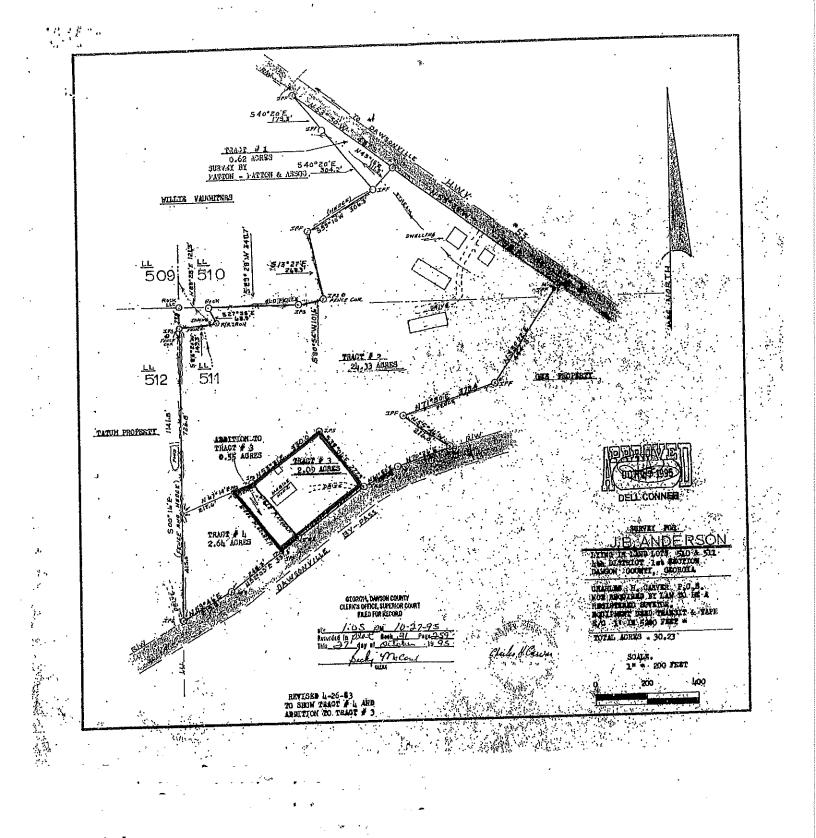
Carter Richardson

Vice President of Land Acquisition Jim Chapman Communities, Inc.

2700 CUMBERLAND PARKWAY SE | SUITE 130 | ATLANTA, GA 30339 | p 404-623-7272

www.JimChapmanCommunities.com





· · · · .

Exhibit "A"

#### POLATTY & SULLIVAN Attorneys at Law

627-F Halcomb Bridge Road \* Roswell, Georgia 30075 404--092-3480

PUBLIC SQUARE Dawsonville, Ga. 30534 404-265-3281

#### WARRANTY DEED

STATE OF GEORGIA

COUNTY OF DAWSON

THIS INDENTURE, Made the 5th day of May , in the year one thousand nine hundred eighty-three , between

#### J.B. ANDERSON

of the County of Dawson first part, hereinafter called Grantor, and

, and State of Georgia, as party or parties of the

#### CURTIS R. ANDERSON

as party or parties of the second part, hereinafter called Grantee (the words "Grantor" and "Grantee" to include their respective heirs, successors and assigns where the context requires or permits).

WITNESSETH that: Grantor, for and in consideration of the sum of

TEN DOLLARS AND OTHER VALUABLE CONSIDERATIONS-----(\$10.00) XXXXXXXX in hand paid at and before the scaling and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, conveyed and confirmed, and by these presents does grant, bargain, sell, alien, convey and confirm unto the said Grantee, all that tract or parcel of land lying and being in Land Lot 511 of the 4th District of Dawson County, Georgia, and being more particularly described as follows:

BEGINNING at an iron pin set at the intersection of the North rightof-way of the Dawsonville By-Pass with the West line of Land Lot 511 and going thence along the West line of Land Lot 511 North 00 degrees 16 minutes West 415.0 feet to a point; going thence North 67 degrees 14 minutes East 217.6 feet to an iron pin set; going thence South 38 degrees 29 minutes East 300.8 feet to an iron pin set on the North right-of-way of the Dawsonville By-Pass; going thence along the North right-of-way of the Dawsonville By-Pass South 52 degrees 03 minutes West 249.3 feet to a point; going thence along the North right-of-way of the Dawsonville By-Pass South 52 degrees 03 minutes West 249.3 feet to a point; going thence along the North right-of-way of the Dawsonville By-Pass South 59 degrees 46 minutes West 219.2 feet to an iron pin set, which iron pin set is the POINT OF BEGINNING.

The above-described property being labeled as Tract #4 and containing 2.64 acres according to plat for J.B. Anderson by Charles H. Carver, dated April 26, 1983.

of

3:25

Recorded in Book\_

GEORGIA, DAWSON COUNTY CLERK'S OFFICE, SUPERIOR COURT FILED FOR RECORD

day of

MADODX.

Page

CLERK

DAWSON COUNTY, GEORGIA REAL ESTATE TRANSFER TAX PAID \$. on 5-5-0 DAYE madsto aeste RALFH MADDOX, CLERK

TO HAVE AND TO HOLD the said tract or parcel of land, with all and singular the rights, members and appurtenances thereof, to the same being, belonging, or in anywise appertaining, to the only proper use, benefit and behoof of the said Grantee forever in FEE SIMPLE.

AND THE SAID Grantor will warrant and forever defend the right and title to the above described property unto the said Grantee against the claims of all persons whomsvever.

IN WITNESS WHEREOF, the Grantor has signed and souled this deed, the day and year above written,

led and delivered in presence of: (Seal) (Seal) (Seal) 9-15-86

2.64 AC

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After recording return to: Home & Home, P.C. P.O. Box 37 Dahlonega, Georgia 30533

.X.S. ....

GEORGIA, DAWSON COUNTY CLEAK'S OFFICE, SUPERIOR COURT FILED FOR RECORD Recorded in Qad Clerk

DAWSON COUNTY, GEORGIA Becley Actord PAID . DATE

1 .. 1.2.

CECKY MOCORD, CLERK SUPERIOR COUNT

### SURVIVORSHIP WARRANTY DEED

STATE OF GEORGIA. COUNTY OF LUMPKIN.

THIS INDENTURE, Made this 31" day of March in the Year of Our Lord Two Thousand Three (2003), between Harold McCord and Karen McCord, of the State of Georgia, and County of Dawson, of the first part, and Hurold McCord and Karen McCord, of the State of Georgia, and County of Dawson, of the second part,

WITNESSETH: That said parties of the first part, for and in consideration of the sum of TEN AND 00/100s DOLLARS (\$10.00) and Other Valuable Consideration, in hand paid, at and before the scaling and delivery of these presents, the receipt of which is hereby acknowledged, have granted, bargained, sold and conveyed and by these presents do grant, bargain, sell and convey unto the said parties of the second part as tenants in common, for and during their joint lives, and, upon the death of either of them, then to the survivor of them, in fee simple, together with every contingent remainder and right of reversion, and to the heirs and assigns of said survivor, the following described property:

All that tract or parcel of land lying and being in Land Lot 511 of the 4th District of Dawson County, Georgia, consisting of 2.09 acres, more or less, together with all improvements located thereon, and being more particularly set out as Tract 3 on a plat of survey prepared for J. B. Anderson by Charles H. Carver, P.C.S.. This plat is recorded in Plat Book 8, Page 119, Dawson County Records, and is incorporated herein by reference for a more detailed description.

This is that same property which was conveyed to the Grantors by Warranty Deed dated June 12, 1979, recorded in Deed Book 48, Page 156, Dawson County Records.

This property is conveyed subject to all easements for roads and utilities in use or of record,

TO HAVE AND TO HOLD the said described parcel of land, with all and singular the rights, members and appurtenances thereof to the same being, belonging or in anywise appertaining to the only proper use, benefit and behoof of the said parties of the second part, as tenants in common, for and during their joint lives, and upon the death of either of them, then to the survivor of them, in fee simple, together with every contingent remainder and right of reversion, and to the heirs and assigns of said survivor.

AND THE SAID parties of the first part, for their heirs, executors and administrators, will warrant and forever defend the right and title to the above described property, unto the said parties of the second part, as hereinabove provided, against the claims of all persons whomsoever.

Tract At 3

Page Two

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IN WITNESS WHEREOF, the said parties of the first part have hereunto set their hands and seals the day and year above written.

Signed, sealed and delivered in our presence this 31<sup>st</sup> day of March, 2003.

-----

a Dura Unotheial Witness

Notary Public Commission Expires BULLENS **INTAR** EXP. 3/10/2004 . nu

(SEAL) Harold McCord

lon macaro (SEAL) er: Karen McCord

Filed in Office: 03/25/2013 01:00PM Deed Doc: ESTD Bk 01065 Pg 0505-0506 Georgia Transfer Tax Paid : \$0.00 Justin Power Clerk of Court Dawson County 0422013000306

Document prepared by and when recorded return to:

Polatty & Sullivan P.O. Box 56 Dawsonville, Georgia 30534

965 Canton Street Roswell, Georgia 30075 (770) 992-3480

POLATTY & SULLIVAN Attomeys at Law

**Public Square** Dawsonville, Ga. 30534 (706) 265-3281

### EXECUTOR'S DEED

### STATE OF GEORGIA

### COUNTY OF DAWSON

two thousand thirteen (2013), between

THIS INDENTURE, made the 19th day of March

in the year

CURTIS R. ANDERSON and KAREN A. McCORD

as Co-Executors of the last will and testament of JOHN BEV ANDERSON, alk/a J.B. ANDERSON, late of the State of Georgia, and County of Dawson, deceased, of the First Part, hereinafter called Grantor, and

#### CURTIS R. ANDERSON and KAREN A. McCORD

of the State of Georgia and County of Dawson, of the Second Part, hereinafter called Grantee (the words "Grantor" and "Grantee" to include their respective heirs, successors and assigns where the context requires or permits).

WITNESSETH: That the said Grantor (acting under and by virtue of the power and authority contained in the said will, the same having been duly probated and recorded in the Probate Court of Dawson County, Georgia), for and in consideration of the sum of TEN DOLLARS (\$10.00) and other valuable considerations in hand paid at and before the scaling and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell and convey unto the said Grantee, the following-described property:

#### Tract 1:

All that tract or parcel of land lying and being in Land Lots 510 and 511 of the 4th District of Dawson County, Georgia, and being more particularly described as follows:

BEGINNING at an iron pin set at a fence corner on the West line of Land Lot 511, which iron pin set is 77.8 feet South of the Northwest corner of Land Lot 511 and going thence South 00 degrees 16 minutes East 1141.8 feet along a fence line to an iron pln set on the North right-of-way of the Dawsonville By-Pass; going thence along the North right-of-way of the Dawsonville By-Pass North 59 degrees 46 minutes East 219.2 feet to a point; North 52 degrees 03 minutes East 331.3 feet to an iron pin set; North 53 degrees 17 minutes East 325.0 feet to an iron pin set; North 61 degrees 50 minutes East 155.6 feet to a point; North 70 degrees 26 minutes East 214.4 feet to an iron pin set; going thence North 55 degrees 46 minutes West 216.0 feet to an iron pin found; going thence North 71 degrees 40 minutes Bast along a fence line 379.4 feet to an iron pin found; going thence North 33 degrees 22 minutes East 444.8 feet to an iron pin found on the South right-of-way of Highway #53; going thence along the South right-of-way of Highway #53 North 53 degrees 29 minutes West 792.8 feet to a point; North 53 degrees 30 minutes West 487.9 feet to an iron pln found; going thence South 40 degrees 20 minutes East 179.3 feet to an iron pin found; going thence South 40 degrees 20 minutes East 304.2 feet to an iron pin found; going thence along a hedge South 59 degrees 10 minutes West 306.3 feet to an iron pln found; going thence South 13 degrees 27 minutes East 268.9 feet to an iron pin set at a fonce comer; going thence South 80 degrees 54 minutes West 101.6 feet to an iron pin set; going thence South 89 degrees 28 minutes West 348.7 feet to a rock; going thence South 27 degrees 35 minutes East 68.9 feet to a railroad iron; going thence along a fence South 83 degrees 20 minutes West 149.3 feet to an iron pin set in a fence corner on the West line of Land Lot 511, which iron pin set is the POINT OF BEGINNING.

Tract # 1, #2, #3, #4 #2 tmp 093 047 #3 tmp 093 044 #3 tmp 093 044 #4 tmp 098 043

For descriptive purposes reference is made to survey for J.B. Anderson by Charles H. Carver, P.C.S.

#### Bk 01065 Pa0508

Tract 2:

All that truct or parcel of land lying and being in Land Lot 510 of the 4th District, 1th Section of Dawson County, Georgia, containing 1.42 acres and being a part of the property shown on a plat of the property of Church of God of Prophecy recorded in Plat Book 10, Page 21, Dawson County Records, being more particularly described as follows:

BEGINNING at a rock corner located N 89-28 E 121.3 feet from a rock at the original Southwest corner of Land Lot 510; thence N 53-59 E 477.7 fect to an iron pin at the intersection of a hedge row and old fence line; thence S 13-27 E 268.9 feet to an iron pin; thence S 80-54 W 101.6 feet to an iron pin; thence S 89-28 W 348.7 feet to the point of beginning, being a part of the property conveyed by Willie G. Vaughters to Church of God of Prophecy by deed recorded in Dawson County Deed Records.

The above-described property (Tract 1 and Tract 2) is the same property conveyed in a General Warranty Deed from J.B. Anderson, a/k/a John B. Anderson, to J.B. Anderson and Marjorie V. Anderson dated April 15, 2004, and recorded in Deed Book 591, Pages 471-472, Dawson County, Georgia Records.

The Co-Executors of the Estate of JOHN BEV ANDERSON, a/k/a J.B. ANDERSON, being Grantor herein, hereby state under oath that this Executor's Deed is made pursuant to Item IV of the Last Will and Testament of JOHN BEV ANDERSON, afk/a J.B. ANDERSON; that no application for a year's support has been made; that the property remains in the hands of the Co-Executors for administration; that federal estate taxes cannot result in a lien against the property; and that all debts of the Estate have been paid in full.

TO HAVE AND TO HOLD the said tract or parcel of land, with all and singular the rights, members and appurtenances thereof, to the same being, belonging, or in anywise appertaining, to the only proper use, benefit and behoof of the said Granice forever in FEE SIMPLE: in as full and ample a manner as the same was held, possessed and enjoyed. or might have been held, possessed and enjoyed, by the said deceased.

IN WITNESS WHEREOF, each Grantor herein has hereunto set his hand and seal, the day and year first above written.

Signed, sealed and delivered in the presence of:

Unofficial Witnes: Notary Public (Affix Scal)  $\mathcal{S}$ My Comm. Exp.: Date Notarized:

4

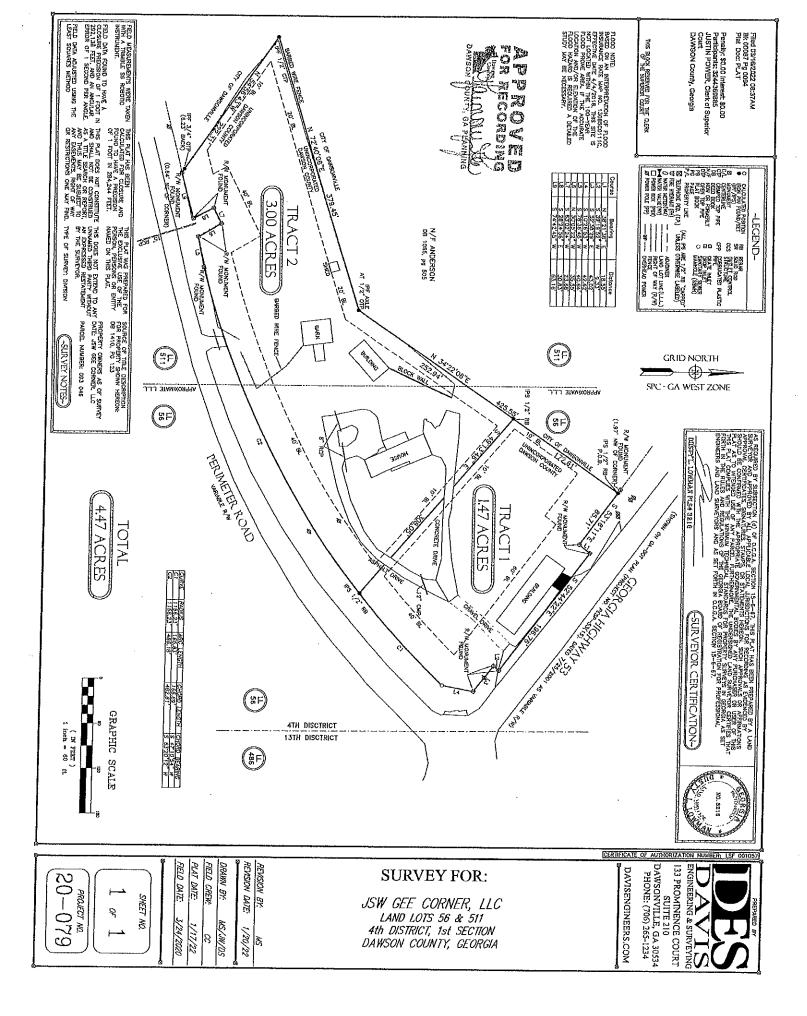
Indusan (SEAL) CURTIS R. ANDERSON, Co-Executor of the Estate of JOHN BEV ANDERSON, a/k/a J.B. ANDERSON

mcaro ٨٥. (SEAL)

KAREN A. McCORD, Co-Executor of the Estate of JOHN BEV ANDERSON, a/k/a J.B. ANDERSON



-2-



All that tract or parcel of land lying and being in land lots 56 and 511, 4<sup>th</sup> District, 1<sup>st</sup> Section, Dawson County Georgia being more particularly described as follows:

Beginning at a right of way monument on the southwestern right of way of Georgia Highway 53 (having a variable right-of-way) as found northwesterly from the intersection of the southwesterly right of way of Georgia Highway 53 and the northwesterly right of way of Perimeter Road (having a variable right-ofway); running thence along the southwestern right-of-way of Georgia Highway 53 South 53 degrees, 18 minutes, 11 seconds East a distance of 1.97 feet to a ½ inch rebar set; running thence away from the southwesterly right-of way of Georgia Highway 53 South 34 degrees, 22 minutes, 06 seconds West a distance of 172.61 feet to a ½ inch rebar set (being the "TRUE POINT OF BEGINNING"); running thence South 49 degrees, 13 minutes, 46 seconds East a distance of 308.05 feet to a ½ inch rebar set on the northwesterly right-of-way of Perimeter Road; running thence along the northwesterly right of way of Perimeter Road along a curve with a radius of 1156.23 degrees an arc length of 486.18 feet, said curve being subtended by a chord running South 63 degrees, 20 minutes, 12 seconds West a chord distance of 482.61 feet to a right-of-way monument found; running thence South 78 degrees, 36 minutes, 46 seconds West a distance of 40.64 to a right-of-way monument found; running thence North 30 degrees, 05 minutes, 22 seconds West a distance of 35.55 to a right-of-way monument found; running thence South 63 degrees, 02 minutes, 24 seconds West a distance of 23.68 to a right-of-way monument found; running thence South 28 degrees, 24 minutes, 56 seconds East a distance of 30.83 feet to a right-of way monument found; running thence along the northwesterly right of way of Perimeter Road South 74 degrees, 42 minutes, 45 seconds West a distance of 63.16 to a ¾ open top pipe found; running thence away from the northwesterly right-of-way of Perimeter Road North 54 degrees, 56 minutes, 43 seconds West a distance of 222.31 feet to a ½ crimped top pipe found; running thence North 72 degrees, 40 minutes, 06 seconds East a distance of 379.45 feet to a ½ inch open top pipe placed; running thence North 34 degrees, 22 minutes, 06 seconds East a distance of 252.94 feet to a ½ inch rebar set and the TRUE POINT OF BEGINNING being a three acre tract and that parcel of land shown as TRACT 2 on that survey dated January 17, 2022, revised on January 20, 2022, completed for JSW GEE Corner, LLC by Dusty L Lowman of Davis Engineering & Surveying registered land surveyor no. 3216.



William S. Wade, Manager 🕼

#### ESCROW AGENT:

Date: \_/\_\_/ 2021 Company Old Republic National Title Insurance

By:

Carrie Tullis

#### EXHIBIT "A-1"

#### Description of the Land

All that tract or parcel of land lying and being in Land Lot 511 and in Fractional Land Lot 56 of the 4<sup>th</sup> District, 1<sup>st</sup> Section of Dawson County, Georgia, being 4.47 acres as depicted on a survey prepared for JSW Gee Comer, LLC, dated April 29, 2020, by Davis Engineering & Surveying, bearing the seal and certification of Jason D. Watkins, Georgia Registered Land Surveyor No. 3241, which survey is incorporated herein by reference for a more complete description of the Property, and said Property being more particularly described as follows in accordance with said survey:

BEGINNING at a Right of Way Monument located on the Northernmost point of the mitered intersection of the Southwesterly right of way line of Georgia Highway 53 (variable right of way) and the Northwesterly right of way line of Perimeter Road (variable right of way); thence proceed along the mitered intersection of the Southwesterly right of way line of Georgia Highway 53 and the Northwesterly right of way line of Perimeter Road South 10 degrees 26 minutes 53 seconds West a distance of 42.62 feet to a point which is the Southernmost point of the mitered intersection of the Southwesterly right of way line of Georgia Highway 53 and the Northwesterly right of way line of Perimeter Road; therice proceed along the Northwesterly right of way line of Perimeter Road the following courses and distances: along the arc of a 1156.23-foot radius curve to the right, an arc distance of 652.01 feet to a Right of Way Monument (said arc being subtended by a chord bearing South 59 degrees 13 minutes 41 seconds West, a chord distance of 643.41 feet); South 78 degrees 36 minutes 46 seconds West a distance of 40.64 feet to a Right of Way Monument; North 30 degrees 05 minutes 22 seconds West a distance of 35.55 feet to a Right of Way Monument; South 63 degrees 02 minutes 24 seconds West a distance of 23.68 feet to a Right of Way Monument: South 28 degrees 24 minutes 56 seconds East a distance of 30.83 feet to a Right of Way Monument; and, South 72 degrees 42 minutes 45 seconds West a distance of 63.16 feet to a point; thence leave the Northwesterly right of way line of Perlmeter Road and proceed North 54 degrees 56 minutes 43 seconds West a distance of 222.31 feet to an Iron Pin Found (1/2" Orimp Top Pipe); thence proceed North 72 degrees 40 minutes 06 seconds East a distance of 379.45 feet to an Iron Pin Found (Axle at 1/2" Open Top Pipe); thence proceed North 34 degrees 22 minutes 06 seconds East a distance of 425.55 feet to an Iron Pin Set (1/2" Rebar) on the Southwesterly right of way line of Georgia Highway 53; thence proceed along the Southwesterly right of way line of Georgia Highway 53 the following courses and distances: South 53 degrees 18 minutes 11 seconds East a distance of 85.71 feet to a Right of Way Monument; North 38 degrees 21 minutes 38 seconds East a distance of 18.55 feet to a Right of Way Monument; South 52 degrees 44 minutes 22 seconds East a distance of 196.76 feet to ليهروا

JBC -

a Right of Way Monument; South 39 degrees 19 minutes 52 seconds West a distance of 9.33 feet to a Right of Way Monument; and, South 52 38 29 seconds East a distance of 43.02 feet to a Right of Way Monument located on the on the Northermost point of the mitered intersection of the Southwesterly right of way line of Georgia Highway 53 and the Northwesterly right of way line of Perimeter Road and the POINT OF **BEGINNING**,

البوجهل

#### EXHIBIT "A-2"

#### **Depiction of the Property**

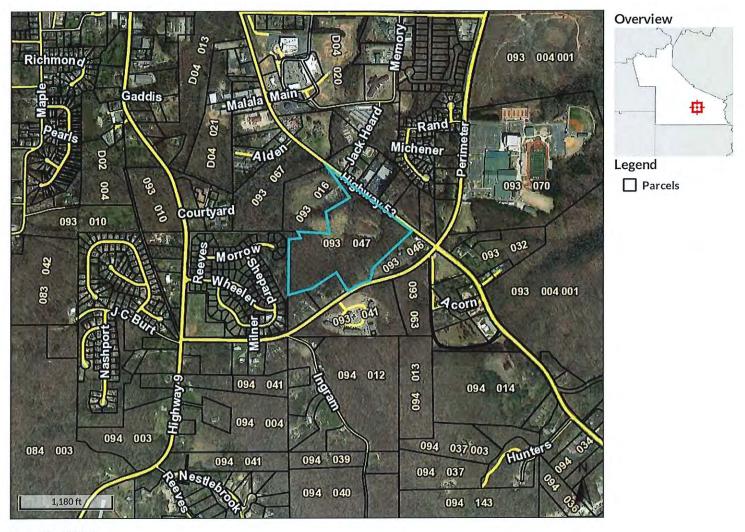
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[To be attached hereto.]

# **(A) qPublic.net**<sup>™</sup> Dawson County, GA



Parcel ID: 093 047 Alt ID: 6380 Owner: ANDERSON CURTIS & MCCORD KAREN Acres: 24.33 Assessed Value: \$724880

Date created: 1/13/2022 Last Data Uploaded: 1/12/2022 10:40:10 PM



### **City Council:**

John Walden Caleb Phillips William Illg Mark French



### Mike Eason Mayor

Robert Bolz City Manager

Beverly Banister City Clerk

Diane Callahan Interim Planning Director

Stacy Harris Zoning Admin Assistant

## Planning Commission:

Randy David, Chairperson Matt Fallstrom, Post 1 Josh Nichols, Post 2 Sandy Sawyer, Post 3 Anna Tobolski, Post 4

415 Highway 53 East, Suite 100 Dawsonville, GA 30534 Office (706)265-3256 www.dawsonville-ga.gov

### PUBLIC NOTICE

The following public hearings will be heard by the City of Dawsonville Planning Commission at 5:30 p.m. and/or the City Council beginning at 5:00 p.m. respectively on the dates indicated below. Public hearings are heard in the Council Chambers on the second floor at City Hall located at 415 Hwy 53 East, Dawsonville, Georgia 30534. The public is invited to participate.

**ANX-C2200122:** Jim Chapman Communities, Inc has petitioned to annex into the city limits of Dawsonville the 3-acre tract known as TMP 093 046 (tract 2), Located at 922 Hwy 53 East, with a County Zoning of RSR (Residential Sub-Rural) to City Zoning R6 (Multiple-Family Residential District). Public Hearing Dates: Planning Commission on September 12, 2022, and City Council on October 3, 2022. City Council for a decision on October 17, 2022.

**ZA-C2200123:** Jim Chapman Communities, Inc has petitioned a zoning amendment for TMP 093 043, 093 044, and 093 047; Located at 2120 Perimeter Road and 922 Hwy 53 East from R1 (Restricted Single-Family Residential District) to R6 (Multiple-Family Residential District). Public Hearing Dates: Planning Commission on September 12, 2022, and City Council October 3, 2022. City Council for a decision on October 17, 2022.

**VAR-C2300013:** Paul Winschuh has requested a reduction in setbacks along the rear and side property lines for TMP 083 038 046, Located at 375 Angela Lane. Public Hearing Date: Planning Commission on September 12, 2022.

If you wish to speak on the requests, please contact City Hall for a CAMPAIGN DISCLOSURE form. *This form is only needed if you have made campaign contributions in the amount of \$250.00 or more within 2 years prior to this date.* 

Those persons with disabilities who require reasonable accommodations in order to allow them to observe and/or participate in this meeting or who have questions regarding the accessibility of the meeting, should contact the Clerk at Dawsonville City Hall at 706-265-3256 at least two (2) business days prior to the meeting.

## TRAFFIC IMPACT STUDY FOR TOWNHOME DEVELOPMENT ON PERIMETER ROAD

## **DAWSON COUNTY, GEORGIA**





Prepared for:

Jim Chapman Communities 2700 Cumberland Parkway SE Suite 130 Atlanta, GA 30339

**Prepared By:** 



# A&R Engineering Inc.

2160 Kingston Court, Suite O Marietta, GA 30067 Tel: (770) 690-9255 Fax: (770) 690-9210 www.areng.com

> February 09, 2022 A & R Project # 22-013

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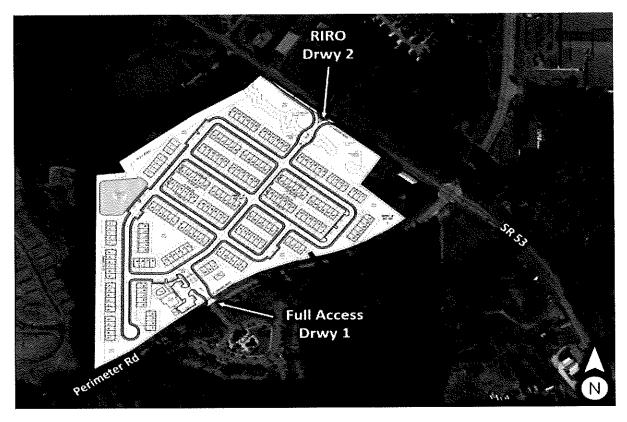
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#### 

## 1.0 INTRODUCTION

The purpose of this study is to determine the traffic impact that will result from the proposed 195-unit townhome development located to the northwest of the intersection of SR 53 and Perimeter Road in Dawson County, Georgia. The traffic analysis evaluates the current operations compared to the future conditions with the traffic generated by the development.



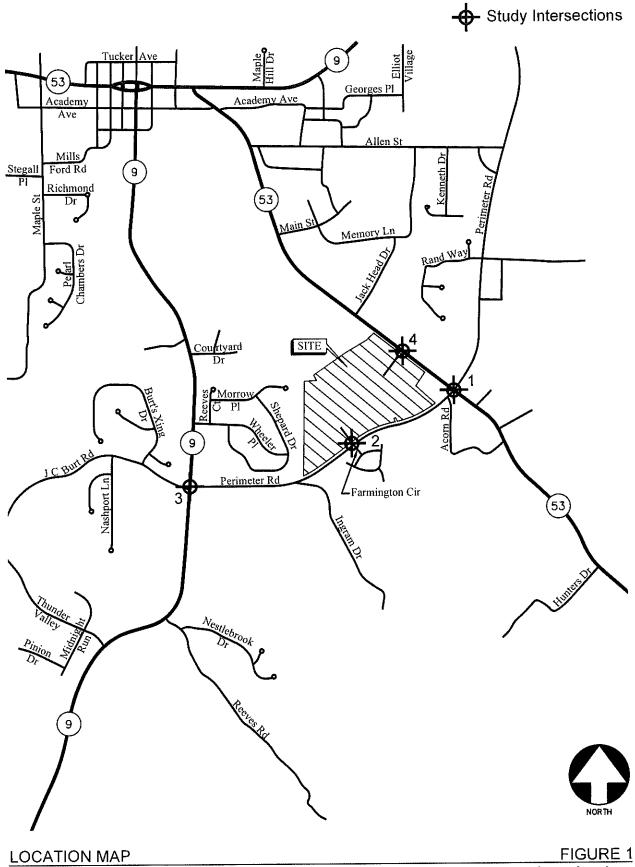
The development proposes access at the following locations:

- Site Driveway 1: Full-access driveway on Perimeter Road, across from Farmington Circle
- Site Driveway 2: Right-in/right-out driveway on SR 53

The AM and PM peak hours have been analyzed in this study. Due to the close proximity of Dawson County High School and other schools on Perimeter Road and 5R 53, the school dismissal peak hour has also been analyzed. This study includes the evaluation of traffic operations at the intersections of:

- SR 53 @ Perimeter Road
- Perimeter Road @ Farmington Circle / Proposed 5ite Driveway 1
- SR 9 @ Perimeter Road

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



A&R Engineering Inc.

# 2.0 EXISTING FACILITIES / CONDITIONS

## 2.1 Roadway Facilities

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

### 2.1.1 State Route 53 (SR 53)

State Route 53 (SR 53) is a north-south, two-lane, undivided roadway with a posted speed limit of 45 mph in the vicinity of the site. Georgia Department of Transportation (GDOT) traffic counts (Station ID's 085-0138 & 085-0141) indicate that the daily traffic volume on SR 53 in 2019 was 13,500 vehicles per day south of Academy Avenue and 15,300 vehicles per day north of Buddy Burt Road. GDOT classifies SR 53 as an Urban Principal Arterial roadway.

### 2.1.2 Perimeter Road

Perimeter Road is an east-west, two-lane, undivided roadway with a posted speed limit of 40 mph in the vicinity of the site. To the east of SR 53, Perimeter Road is posted with a speed limit of 45 mph with 30 mph signs at the school zones. GDOT traffic counts (Station ID 085-0229) indicate that the daily traffic volume on Perimeter Road in 2019 was 800 vehicles per day east of Shoal Creek Road. GDOT classifies Perimeter Road as a Rural Local roadway.

## 2.1.3 State Route 9 (SR 9)

State Route 9 (SR 9) is a north-south, two-lane, undivided roadway with a posted speed limit of 45 mph in the vicinity of the site. GDOT traffic counts (Station ID's 085-0105 & 085-0103) indicate that the daily traffic volume on SR 9 in 2019 was 4,790 vehicles per day north of Perimeter Road and 5,380 vehicles per day north of Jenkins Road. GDOT classifies SR 9 as a Rural Principal Arterial near Perimeter Road and as an Urban Minor Collector roadway near Jenkins Road.

## 2.1.4 J C Burt Road

J C Burt Road is an east-west, two-lane, undivided roadway with a posted speed limit of 25 mph in the vicinity of the site.

# 3.0 STUDY METHODOLOGY

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

## 3.1 Unsignalized Intersections

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

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

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

	LOS by Volume-to-Capacity Ratio*			
Control Delay (sec/vehicle)	v/c ≤ 1.0	v/c ≥ 1.0		
≤ 10	A	F		
> 10 and ≤ 15	В	F		
> 15 and ≤ 25	С	F		
> 25 and ≤ 35	D	F		
> 35 and ≤ 50	E	F		
> 50	F	F		

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

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

## 3.2 Signalized Intersections

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

	LOS for Lane Group by Volume-to-Capacity Ratio				
Control Delay (sec/vehicle)*	v/c ≤ 1.0	v/c ≥ 1.0			
≤ 10	A	F			
> 10 and ≤ 20	В	F			
> 20 and ≤ 35	C	F			
> 35 and ≤ 45	D	F			
> 55 and ≤ 80	E	F			
> 80	F	F			

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

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

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

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

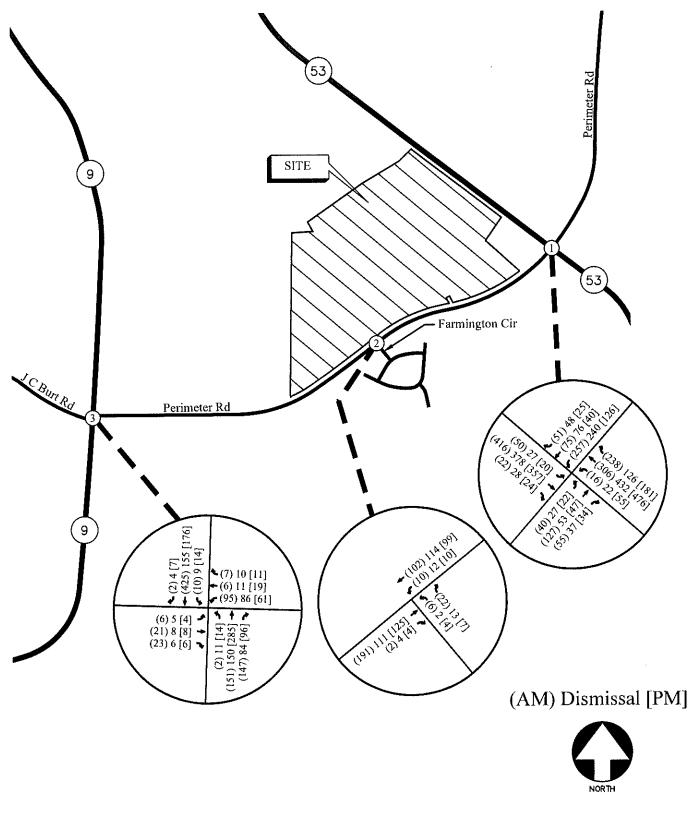
## 4.0 EXISTING 2022 TRAFFIC ANALYSIS

## 4.1 Existing Traffic Volumes

Existing traffic counts were obtained at the following study intersections:

- SR 53 @ Perimeter Road
- Perimeter Road @ Farmington Circle
- SR 9 @ Perimeter Road

Turning movement counts were collected on Tuesday, January 25, 2022. All turning movement counts were recorded during the AM, school dismissal and PM peak hours between 7:00 AM to 9:00 AM, 2:00 PM to 4:00 PM and 4:00 PM to 6:00 PM, respectively. The four consecutive 15-minute interval volumes that summed to produce the highest volume at the intersections were then determined. These volumes make up the peak hour traffic volumes for the intersections counted and are shown in Figure 2.



EXISTING WEEKDAY PEAK-HOUR VOLUMES

FIGURE 2 A&R Engineering Inc.

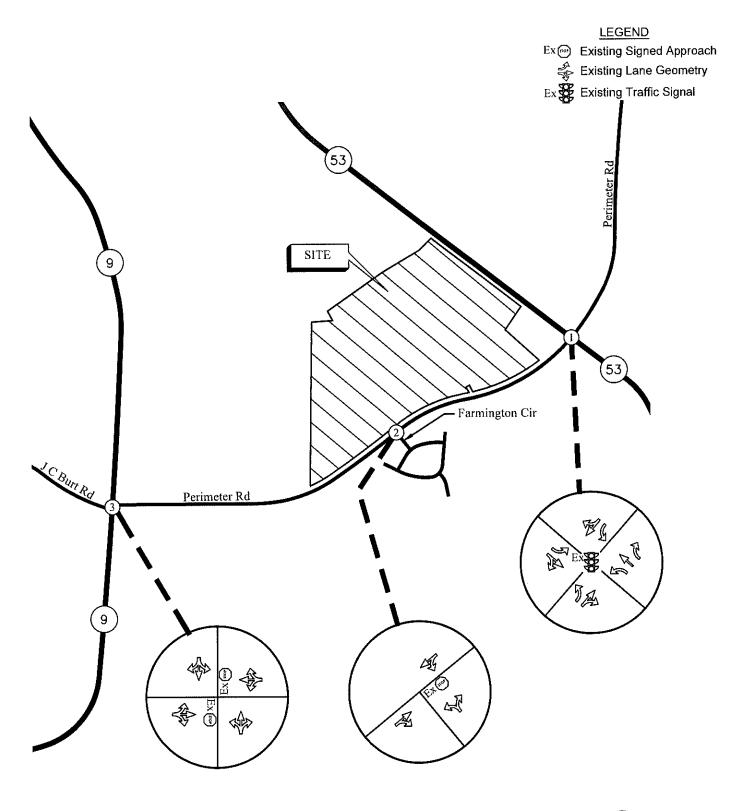
## 4.2 Existing Traffic Operations

Existing 2022 traffic operations were analyzed at the study intersections in accordance with the HCM methodology. The results of the analyses are shown in Table 3.

Intersection		a second s	LOS (Delay)			
		Traffic Control	AM Peak	Dismissal Peak	PM Peak	
1	SR 53 @ Perimeter Road -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	<u>D (36.0)</u> E (59.7) E (57.4) C (21.9) C (24.6)	<u>C (32.1)</u> E (59.9) E (73.6) B (13.9) B (14.2)	<u>B (19.4)</u> E (60.8) D (46.7) B (10.7) B (11.3)	
2	Perimeter Road @ Farmington Circle -Westbound Left -Northbound Approach	Stop Controlled on NB Approach	A (7.8) B (10.1)	A (7.6) A (9.4)	A (7.5) A (9.4)	
3	SR 9 @ Perimeter Road -Eastbound Approach -Westbound Approach -Northbound Left -Southbound Left	Stop Controlled on EB and WB Approaches	C (17.4) D (33.8) A (8.5) A (8.1)	B (12.4) C (15.7) A (7.7) A (7.9)	B (13.2) C (16.5) A (7.6) A (8.2)	

The results of existing traffic operations analysis indicates that the overall level-of-service at the signalized intersection of SR 53 at Perimeter Road and the level-of-service for the approaches at all unsignalized intersections is "D" or better in the AM, school dismissal and PM peak hours.

The existing traffic control and lane geometry for the intersections are shown in Figure 3.





## EXISTING TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 3 A&R Engineering Inc.

## 5.0 PROPOSED DEVELOPMENT

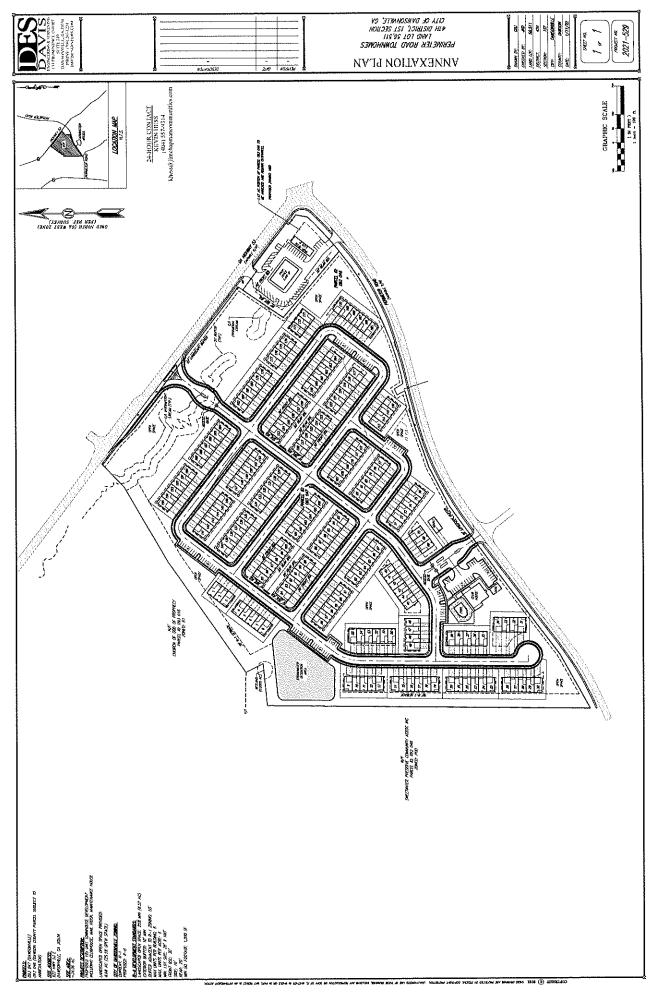
The proposed development will be located to the northwest of the intersection of SR 53 and Perimeter Road in Dawson County, Georgia. The development will consist of 195 townhome units.



The development proposes access at the following locations:

- Site Driveway 1: Full-access driveway on Perimeter Road, across from Farmington Circle
- Site Driveway 2: Right-in/right-out driveway on SR 53

A site plan is shown in Figure 4.



1

FIGURE 4 SITE PLAN

## 5.1 Trip Generation

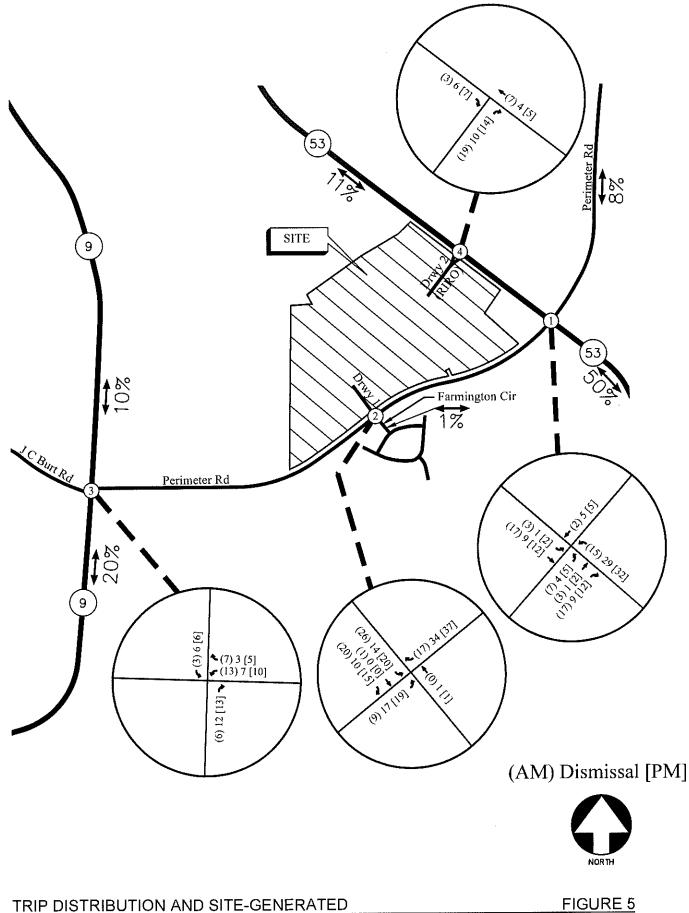
Trip generation estimates for the project were based on the rates and equations published in the 11<sup>th</sup> edition of the Institute of Transportation Engineers (ITE) Trip Generation report. This reference contains traffic volume count data collected at similar facilities nationwide. The trip generation was based on the following ITE Land Use: 215 – Single-Family Attached Housing. The calculated total trip generation for the proposed development is shown in Table 4.

	and the second s	TABLE	4	RIPG	ENERAT	ION					
		AM Peak Hour		School PM Peak		PM Peak Hour		24 Hour			
Land Use	Size	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	otal 2-way
ITE 215 – Single-Family Attached Housing	195 units	30	66	96	58	34	92	64	49	113	1,435

\* School PM peak hour trips estimated from 3pm-4pm rates from the ITE's 24-hour Vehicle Time of Day Distribution excel

## 5.2 Trip Distribution

The trip distribution describes how traffic arrives and departs from the site. An overall trip distribution was developed for the site based on a review of the existing travel patterns in the area and the locations of major roadways and highways that will serve the development. The site-generated peak hour traffic volumes, shown in Table 4, were assigned to the study area intersections based on this distribution. The outer-leg distribution and AM, school dismissal and PM peak hour new traffic generated by the site are shown in Figure 5.



TRIP DISTRIBUTION AND SITE-GENERATED WEEKDAY PEAK HOUR VOLUMES

FIGURE 5 A&R Engineering Inc.

# 6.0 FUTURE 2024 TRAFFIC ANALYSIS

The future 2024 traffic operations are analyzed for the "Build" and "No-Build" conditions.

## 6.1 Future "No-Build" Conditions

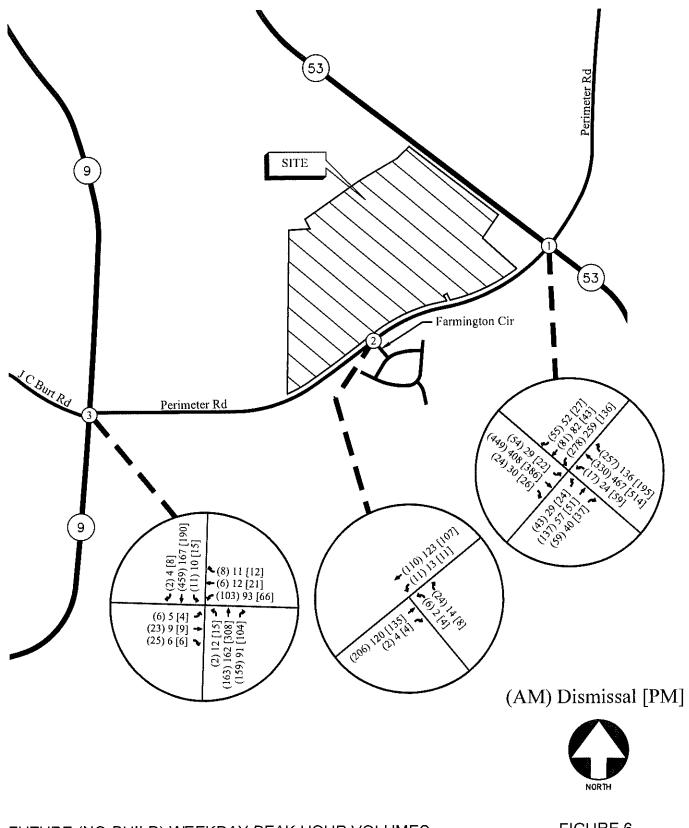
The "No-Build" (or background) conditions provide an assessment of how traffic will operate in the study horizon year without the study site being developed as proposed, with projected increases in through traffic volumes due to normal annual growth. The Future "No-Build" volumes consist of the existing traffic volumes (Figure 2) plus increases for annual growth of through traffic.

### 6.1.1 Annual Traffic Growth

In order to evaluate future traffic operations in this area, a projection of normal traffic growth was applied to the existing volumes. The Georgia Department of Transportation recorded average daily traffic volumes at several locations in the vicinity of the site. Reviewing the growth over the last three (2017-2019) years revealed growth of approximately 4% in the area. This growth factor was applied to the existing traffic volumes between collector and arterial roadways in order to estimate the future year traffic volumes prior to the addition of site-generated traffic. The resulting Future "No-Build" volumes on the roadway are shown in Figure 6.

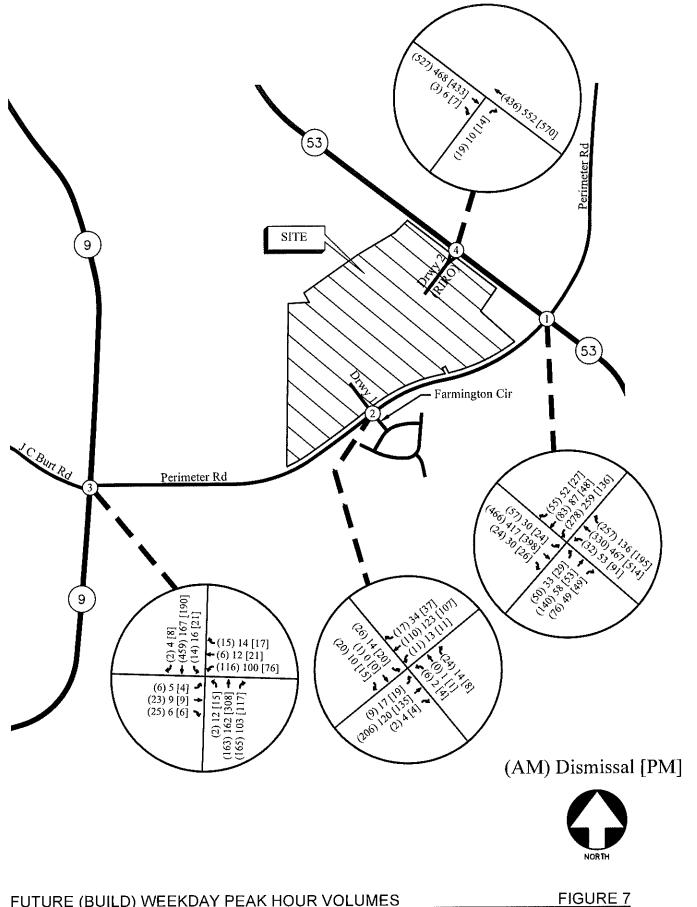
## 6.2 Future "Build" Conditions

The "Build" or development conditions include the estimated background traffic from the "No-Build" conditions plus the added traffic from the proposed development. In order to evaluate future traffic operations in this area, the additional traffic volumes from the site (Figure 5) were added to base traffic volumes (Figure 6) to calculate the future traffic volumes after the construction of the development. These total future "Build" traffic volumes are shown in Figure 7.



FUTURE (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES

FIGURE 6 A&R Engineering Inc.



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES

A&R Engineering Inc.

## 6.3 Auxiliary Lane Analysis

Included below are analyses for left-turn lanes and deceleration lanes for all site driveways per GDOT standards. The analyses below are based off the trip distribution included in Section 5.2. According to the trip distribution, the 24-hour two-way volume entering and exiting the site is 1,435 vehicles.

## 6.3.1 Left Turn Lane Analysis

For two lane roadways with AADT's less than 6,000 vehicles and a posted speed limit of 40 mph, the daily site generated traffic left-turn movements threshold to warrant a left-turn lane is 250 left-turning vehicles a day. The projected left-turn volumes per day for the full access driveway on Perimeter Road is included in Table 5.

TABLE	5 – GDOT REQ	UIREMENTS FOR LEFT	TURN LANES		
Intersection	Left turn traffic (% total entering)	Left-turn Volume (vehicles/day)	Roadway Speed/ # lanes / ADT	GDOT Threshold (vehicles/day)	
Perimeter Road @ Farmington Circle / Site Driveway 1	30% Eastbound Left	215 (total trips) ÷ 2 × 0.3 = (1,435) ÷ 2 × 0.3 = 215	40 mph / 2-Lane / < 6,000	250	

A left-turn lane is not warranted on Perimeter Road at Site Driveway 1 per GDOT standards.

## 6.3.2 Deceleration Turn Lane Analysis

The daily site generated traffic right-turn movements threshold to warrant a deceleration lane is 150 right turning vehicles a day for two lane roadways with AADT's less than 6,000 vehicles and a posted speed limit of 40 mph and 75 right turning vehicles a day for two lane roadways with AADT's greater than 6,000 vehicles and a posted speed limit of 45 mph. The projected right-turn volumes per day for each driveway is included in Table 6.

TABLE 6	6 – GDOT REQUI	REMENTS FOR DECEL	ERATION LANE	S
Intersection	Right-turn traffic (% total entering)	Right-turn Volume (vehicles/day)	Roadway Speed/ # lanes / ADT	GDOT Threshold (vehicles/day)
Perimeter Road @ Farmington Circle / Site Driveway 1	58% Westbound Right	416 (total trips) ÷ 2 × 0.58 = (1,435) ÷ 2 × 0.58 = 416	40 mph / 2-Lane / < 6,000	150
SR 53 @ Site Driveway 2 (Right-in/right-out)	11% Southbound Right	79 (total trips) ÷ 2 × 0.11 = (1,435) ÷ 2 × 0.11 = 79	45 mph / 2-Lane / > 6,000	75

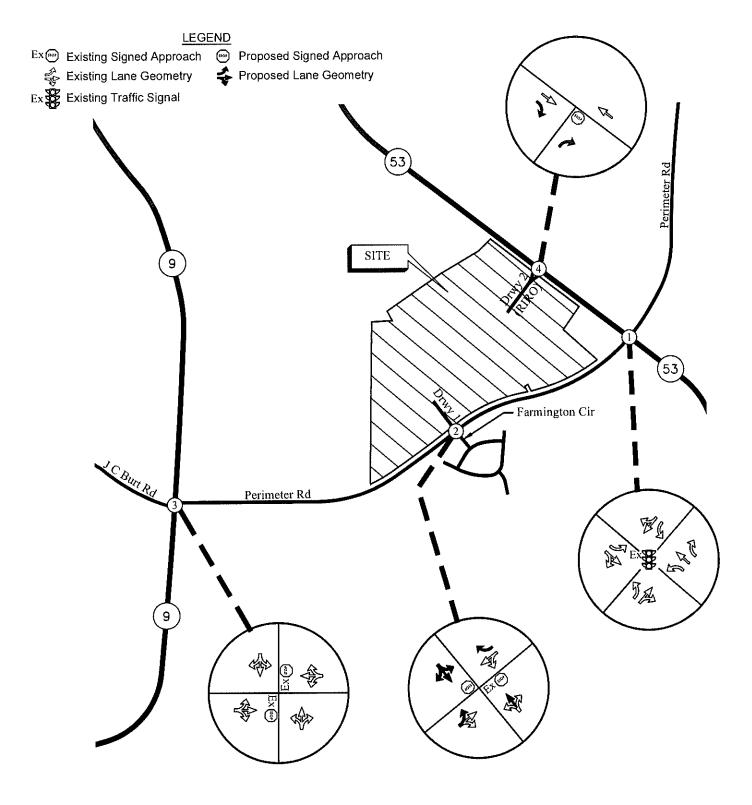
A deceleration lane is warranted on Perimeter Road at Site Driveway 1 and on SR 53 at Site Driveway 2 per GDOT standards.

### 6.4 Future Traffic Operations

The future "No-Build" and "Build" traffic operations were analyzed using the volumes in Figure 6 and Figure 7, respectively. The results of the future traffic operations analysis are shown below in Table 7.

			Fu	ture Condition	on: LOS (Del	ay)	
	line and the second second		NO-BUILD			BUILD	
	Intersection	AM Peak	Dismissal Peak	PM Peak	AM Peak	Dismissal Peak	PM Peak
	SR 53 @ Perimeter Road	D (40.8)	<u>C (33.9)</u>	<u>C (20.1)</u>	D (44.1)	<u>C (34.0)</u>	C (20.8)
-	-Eastbound Approach	E (60.9)	E (59.6)	E (60.5)	E (62.6)	E (59.1)	E (59.9)
1	-Westbound Approach	E (71.2)	E (76.4)	D (47.7)	E (79.8)	E (75.0)	D (46.6)
-	-Northbound Approach	C (23.6)	B (15.5)	B (11.5)	C (24.1)	B (16.0)	B (12.0)
	-Southbound Approach	C (27.5)	B (15.8)	B (12.0)	C (30.5)	B (17.4)	B (13.0)
	Perimeter Road @ Farmington Circle						
	/ Site Driveway 1					10000	
2	-Eastbound Left			-	A (7.6)	A (7.7)	A (7.6)
2	-Westbound Left	A (7.8)	A (7.6)	A (7.5)	A (7.8)	A (7.6)	A (7.5)
	-Northbound Approach	B (10.2)	A (9.4)	A (9.5)	B (10.5)	A (9.8)	B (10.0)
	-Southbound Approach		-	1 ( <del>-</del>	B (11.7)	B (11.1)	B (10.4)
	SR 9 @ Perimeter Road				12.00		
	-Eastbound Approach	C (19.2)	B (12.9)	B (13.9)	C (19.5)	B (13.3)	B (14.3)
3	-Westbound Approach	E (46.7)	C (17.1)	C (18.0)	F (58.1)	C (18.4)	C (19.2)
	-Northbound Left	A (8.6)	A (7.7)	A (7.7)	A (8.6)	A (7.7)	A (7.7)
	-Southbound Left	A (8.1)	A (7.9)	A (8.3)	A (8.2)	A (8.0)	A (8.3)
4	SR 53 @ Site Driveway 2 (RIRO)						1
4	-Eastbound Approach	4	4	1.1.1	B (12.2)	B (11.5)	B (11.2)

After adding the site generated traffic volumes to the No-Build traffic volumes, the results of future traffic operations analysis indicates that the signalized study intersection SR 53 at Perimeter Road will continue to operate at a level-of-service "D" or better in the AM, Dismissal and PM peak hours. The approaches of the stop sign controlled intersections will also continue to operate at a level-of-service "D" or better in the AM, Dismissal and PM peak hours. The approaches of the stop sign controlled intersections will also continue to operate at a level-of-service "D" or better in the AM, Dismissal and PM peak hours. The westbound (Perimeter Road) approach of the stop sign controlled intersection of SR 9 and Perimeter Road will operate at a level-of-service "F" in the AM peak hour in the future "Build" conditions. Delays are caused by side-street wait times to turn left onto the mainline. Since the intersection does not warrant construction of a signal to improve side-street delays, no additional improvements will aid left turn vehicles. It is not unusual for stop-controlled site-streets along arterial roadways to have elevated delays during peak periods, no changes are recommended at this intersection. Recommendations on future traffic control and lane geometry are shown in Figure 8.





### FUTURE TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 8 A&R Engineering Inc.

### 7.0 CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to determine the traffic impact that will result from the proposed 195unit townhome development located to the northwest of the intersection of SR 53 and Perimeter Road in Dawson County, Georgia. The traffic analysis evaluated the current operations compared to the future conditions with the traffic generated by the development.

The development proposes access at the following locations:

- Site Driveway 1: Full-access driveway on Perimeter Road, across from Farmington Circle
- Site Driveway 2: Right-in/right-out driveway on SR 53

The AM, school dismissal and PM peak hours have been analyzed in this study. This study included the evaluation of traffic operations at the intersections of:

- SR 53 @ Perimeter Road
- Perimeter Road @ Farmington Circle / Proposed Site Driveway 1
- SR 9 @ Perimeter Road
- SR 53 @ Proposed Site Driveway 2 (Right-in/right-out)

The analysis included the evaluation of Future operations for "No-Build" and "Build" conditions, both of which account for increases in annual growth of through traffic. The results of the analysis are listed below.

#### 7.1 Conclusion

After adding the traffic volumes of Build to No-Build traffic volumes, the results of future traffic operations analysis indicates that the signalized study intersection SR 53 at Perimeter Road will continue to operate at a level-of-service "D" or better in the AM, Dismissal and PM peak hours. The approaches of the stop sign controlled intersections will also continue to operate at a level-of-service "D" or better in the AM, Dismissal and PM peak hours. The approaches of the AM, Dismissal and PM peak hours. The westbound (Perimeter Road) approach of the stop sign controlled intersection of SR 9 and Perimeter Road will operate at a level-of-service "F" in the AM peak hour in the future "Build" conditions. Delays are caused by side-street wait times to turn left onto the mainline. Since the intersection does not warrant construction of a signal to improve side-street delays, no additional improvements will aid left turn vehicles. It is not unusual for stop-controlled site-streets along arterial roadways to have elevated delays during peak periods, no changes are recommended at this intersection.

### 7.2 Recommendations

The following access configuration is recommended for the proposed site driveway intersections:

- Site Driveway 1: Full-access driveway on Perimeter Road, across from Farmington Circle
  - One entering and one exiting lane.
  - Stop-sign controlled on Farmington Circle and Site Driveway 1 approaches with Perimeter Road remaining free flow.
  - o Deceleration Lane for entering traffic.
  - o Provide adequate sight distance per AASHTO standards.
- Site Driveway 2: Right-in/right-out driveway on SR 53
  - One right-turn lane for exiting traffic.
  - Stop-sign controlled on the driveway approach with SR 53 remaining free flow.
  - o Deceleration Lane for entering traffic.
  - Provide adequate sight distance per AASHTO standards.

### Appendix

Existing Intersection Traffic Counts
Linear Regression of Daily Traffic
Existing Intersection Analysis
Future "No-Build" Intersection Analysis
Future "Build" Intersection Analysis
Traffic Volume Worksheets

EXISTING INTERSECTION TRAFFIC COUNTS

2160 Kingston Court, Suite 'O' Marietta, GA 30067

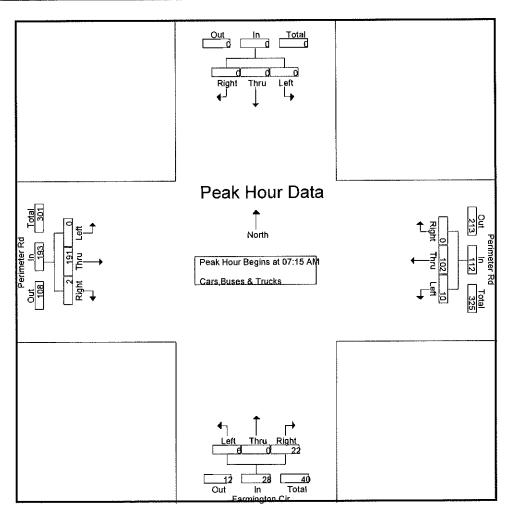
TMC DATA Perimeter Rd @ Farmington Cir 7-9 am | 2-4 pm | 4-6 pm

						Group	s Printe	d- Cars,	Buses	& Truc	ks						
		Farming	gton C	ir							eter Rd				eter Rd		
		North	bound				bound				bound				bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru		pp. Total	Left	Thru		App. Total	Int. Totai
07:00 AM	0	0	0	0	0	0	0	0	0	29	0	29	1	12	0	13	42
07:15 AM	3	0	6	9	0	0	0	0	0	71	0	71	1	25	0	26	106
07:30 AM	3	0	6	9	0	0	0	0	0	54	1	55	0	25	0	25	89
07:45 AM	0	0	6	6	0	0	0	0	0	40	0	40	4	28	0	32	78
Total	6	0	18	24	0	0	0	0	0	194	1	195	6	90	0	96	315
08:00 AM	0	0	4	4	0	0	0	0	0	26	1	27	5	24	0	29	60
08:15 AM	0	0	1	1	0	0	0	0	0	19	0	19	1	16	0	17	37
08:30 AM	4	0	2	6	0	0	0	0	0	16	0	16	3	11	0	14	36
08:45 AM	2	0	1	3	0	0	0	0	0	17	0	17	1	4	0	5	25 158
Total	6	0	8	14	0	0	0	0	0	78	1	79	10	55	0	65	158
*** BREAK ***																	
02:00 PM	0	0	4	4	0	0	0	0	0	20	0	20	4	12	0	16	40
02:15 PM	1	0	0	1	0	0	0	0	0	25	0	25	2	19	0	21	47
02:30 PM	0	0	5	5	0	0	0	0	0	25	1	26	4	53	0	57	88
02:45 PM	1	0	5	6	0	0	0	0	0	25	1	26	2	21	0	23	55
Total	2	0	14	16	0	0	0	0	0	95	2	97	12	105	0	117	230
03:00 PM	1	0	3	4	0	0	0	0	0	28	1	29	1	15	0	16	49
03:15 PM	0	0	0	0	0	0	0	0	0	33	1	34	5	25	0	30	64
03:30 PM	1	0	4	5	0	0	0	0	0	17	1	18	5	22	0	27	50
03:45 PM	0	0	3	3	0	0	0	0	0	25	1	26	4	23	0	27	56
Total	2	0	10	12	0	0	0	0	0	103	4	107	15	85	0	100	219
04:00 PM	0	0	3	3	0	0	0	0	0	14	1	15	4	22	0	26	44
04:15 PM	0	0	1	1	0	0	0	0	0	21	0	21	1	20	0	21	43
04:30 PM	1	0	0	1	0	0	0	0	0	28	1	29	1	33	0	34	64
04:45 PM	0	0	0	0	0	0	0	0	0	27	2	29	5	22 97	0	27 108	56 207
Total	1	0	4	5	0	0	0	0	0	90	4	94	11	97	U	100	207
05:00 PM	1	0	4	5	0	0	0	0	0	20	1	21	2	25	0	27	53
05:15 PM	1	0	1	1	0	0	0	0	0	32	1	33	2	27	0	29	63
05:30 PM	2	0	0	2	0	0	0	0	0	36	1	37	3	22	0	25	64
05:45 PM	1	0	2	3	0	0	0	0	0	37	1	38	3	25	0	28	69
Total	4	0	7	11	0	0	0	0	0	125	4	129	10	99	0	109	249
Grand Total	£	0	61	82	0	0	0	0	0	685	16	701	64	531	0	595	1378
Apprch %	25.6	0	74.4		0	0	0		0	97.7	2.3		10.8	89.2	0	40.5	
Total %	1.5	0	4.4	6	0	0	0	0	0	49.7	1.2	50.9	4,6	38.5	0	43.2	

2160 Kingston Court, Suite 'O' Marietta, GA 30067

TMC DATA Perimeter Rd @ Farmington Cir 7-9 am | 2-4 pm | 4-6 pm

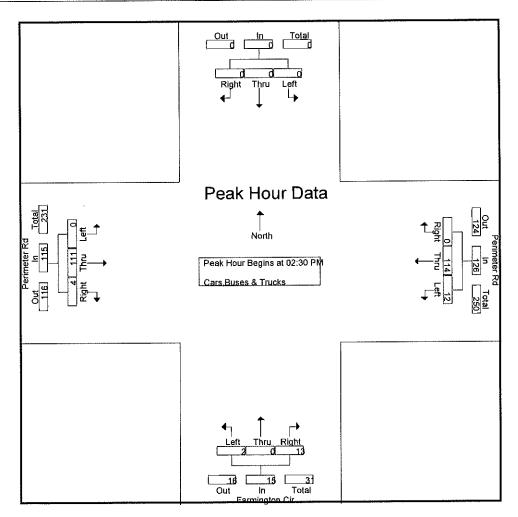
	F	arming North	-			South	bound				eter Rd bound				eter Rd bound		
Start Time	Left			App. Total	Left			App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	int. Total
Peak Hour Ana	lysis Fi	rom 07:	00 AM	to 08:45	AM - P	eak 1 o	if 1										
Peak Hour for I	Entire I	ntersec	tion Be	gins at 0	7:15 AN	1											
07:15 AM	3	0	6	9	0	0	0	0	0	71	0	71	1	25	0	26	106
07:30 AM	3	0	6	9	0	0	0	0	0	54	1	55	0	25	0	25	89
07:45 AM	0	0	6	6	0	0	0	0	0	40	0	40	4	28	0	32	78
08:00 AM	0	0	4	4	0	0	0	0	0	26	1	27	5	24	0	29	60
Total Volume	6	0	22	28	0	0	0	0	0	191	2	193	10	102	0	112	333
% App, Total	21.4	0	78.6		0	0	0		0	99	1		8.9	91.1	0		
PHF	.500	.000	.917	.778	.000	.000	.000	.000	.000	.673	.500	.680	.500	.911	.000	.875	.785



2160 Kingston Court, Suite 'O' Marietta, GA 30067

TMC DATA Perimeter Rd @ Farmington Cir 7-9 am | 2-4 pm | 4-6 pm

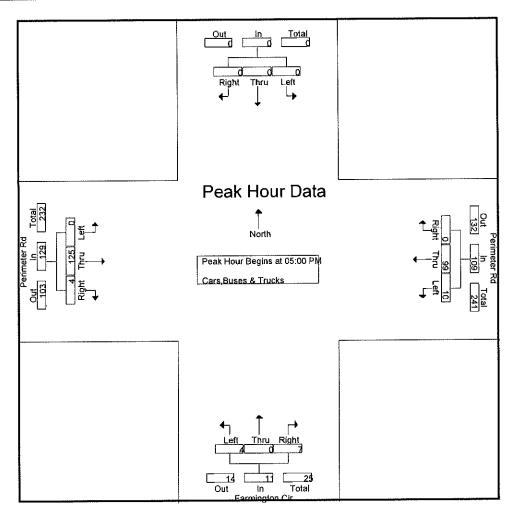
	ļ	Farming	-			0 4 k					eter Rd bound				eter Rd bound		
		Northi	oouna			Soutr	bound										
Start Time				App. Total	Left	Thru		App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	alysis F	rom 02:	00 PM	to 03:45	PM - P	eak 1 c	of 1										
Peak Hour for	Entire I	ntersec	tion Be	gins at 02	2:30 PN	٨						r					
02:30 PM	0	0	5	5	0	0	0	0	0	25	1	26	4	53	0	57	88
02:45 PM	1	0	5	6	0	0	0	0	0	25	1	26	2	21	0	23	55
03:00 PM	1	0	3	4	0	0	0	0	0	28	1	29	1	15	0	16	49
03:15 PM	0	0	0	0	0	0	0	0	0	33	1	34	5	25	0	30	64
Total Volume	2	0	13	15	0	0	0	0	0	111	4	115	12	114	0	126	256
% App. Total	13.3	0	86.7		0	0	0		0	96.5	3.5		9.5	90.5	0		
PHF	.500	.000	.650	.625	.000	.000	.000	.000	.000	.841	1.00	.846	.600	.538	.000	.553	.727



2160 Kingston Court, Suite 'O' Marietta, GA 30067

TMC DATA Perimeter Rd @ Farmington Cir 7-9 am | 2-4 pm | 4-6 pm

		Farming	gton C	ir							eter Rd				eter Rd	l	
		North	bound			South	bound			East	bound			West	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	alysis F	rom 04	00 PM	to 05:45	PM - P	eak 1 o	f1										
Peak Hour for I																	1
05:00 PM	1	0	4	5	0	0	0	0	0	20	1	21	2	25	0	27	53
05:15 PM	0	0	1	1	0	0	0	0	0	32	1	33	2	27	0	29	63
05:30 PM	2	0	0	2	0	0	0	0	0	36	1	37	3	22	0	25	64
05:45 PM	1	0	2	3	0	0	0	0	0	37	1	<b>3</b> 8	3	25	0	28	69
Total Volume	4	0	7	11	0	0	0	0	0	125	4	129	10	99	0	109	249
% App. Total	36.4	0	63.6		0	0	0		0	96.9	3.1		9.2	90.8	0		
PHF	.500	.000	.438	.550	.000	.000	.000	.000	.000	.845	1.00	.849	.833	.917	.000	.940	902



2160 Kingston Court, Suite 'O' Marietta, GA 30067

TMC DATA Perimeter Rd @ SR 9 7-9 am | 2-4 pm | 4-6 pm

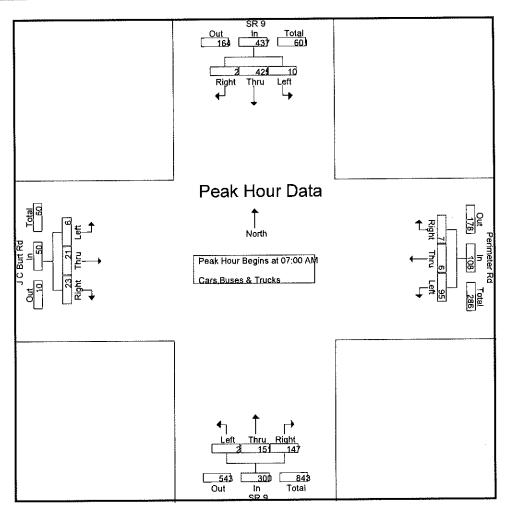
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SR 9         SR 9         SR 9         J C Burt Rd         Perimeter Rd           Start Time         Left         Thru         Right         Ave Tools						l	Groups	s Printeo	d- Cars,I	Buses	& Truc	ks						
Start Time         Left         Thru         Right         App. Total         Left         Thru         Right         App. Total <the< th=""><th></th><th></th><th>SI</th><th>२ 9</th><th></th><th></th><th>S</th><th>R 9</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></the<>			SI	२ 9			S	R 9										
D7:00 AM         D         23         17         40         2         91         0         93         1         3         6         10         12         3         1         16         15           D7:15 AM         0         35         62         97         2         130         1         133         2         8         6         16         28         1         3         32         278           D7:30 AM         1         47         40         82         75         2         79         0         81         2         4         3         9         29         1         31         196           D7:46 AM         1         46         28         75         2         79         0         81         2         4         3         9         29         1         1         31         1         133         2         4         2         8         16         2         6         7         108         898           08:00 AM         2         43         1         25         0         26         1         2         1         4         5         0         1         16         7																		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right /	App. Total	Left	Thru	Right A	pp. Total					
07:30 AM         1         47         40         88         4         125         1         130         1         6         8         15         26         1         2         29         21         1         31         196           Total         2         151         147         300         10         425         2         437         6         21         23         50         65         7         108         895           08:00 AM         2         43         18         63         1         31         1         33         2         4         2         8         15         2         6         23         127           08:00 AM         2         43         125         0         26         1         2         1         4         10         13         0         4         17         96           08:04 AM         0         24         14         38         1         25         2         2         14         10         13         0         4         17         96           08:04 AM         0         23         25         2         3         1         13         11<	07:00 AM	0	23	17	40	2	91	0	93						-		1	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $																		
OF VIA MI         2         15         17         10         20         10         425         2         437         6         21         23         50         95         6         7         108         895           08:15 AM         1         23         12         36         5         51         1         57         0         2         2         4         10         1         2         13         110           08:15 AM         1         23         12         36         5         51         1         57         0         2         2         4         10         1         2         13         110           08:30 AM         0         24         14         38         1         25         0         26         1         2         1         4         5         0         1         6         74           Total         6         116         49         171         9         139         3         151         4         13         9         26         433         3         13         59         407           Total         9         13         3         10													1		-			
D8:00 AM       2       43       18       63       1       31       1       33       2       4       2       8       15       2       6       23       127         08:00 AM       3       26       5       34       2       32       1       35       1       5       4       10       1       2       13       110         08:30 AM       3       26       5       34       2       32       1       35       1       5       4       10       13       0       4       17       96         08:45 AM       0       24       14       38       1       25       0       26       1       2       1       4       13       9       26       43       3       13       59       407         Trial       6       16       49       171       9       139       3       151       4       13       9       26       43       3       13       59       407         Trial       1       31       1       32       14       16       13       2       12       12       12       12       12																		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Total	2	151	147	300	10	425	2	437	6	21	23	50	95	6	7	108	895
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	08:00 AM	2	43	18	63	1	31	1	33	2	4	2	8	15	2	6	23	127
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1				- 1	5	51	1	57	0	2		4	10	1	2	13	110
08:45 AM         0         24         14         38         1         25         0         26         1         2         1         4         5         0         1         6         74           Total         6         116         49         171         9         139         3         151         4         13         9         26         43         3         13         59         407           *** BREAK ***           02:00 PM         1         32         16         49         2         35         2         39         0         3         4         7         8         2         2         12         107           02:30 PM         1         29         16         46         0         72         0         72         2         2         2         6         41         4         3         48         172           02:30 PM         1         29         18         73         200         11         190         5         206         3         12         9         24         81         11         10         102         532           03:00 PM         3         41						2	32	1		1	5	4	10	13	0	4	17	96
Total         6         116         49         171         9         139         3         151         4         13         9         26         43         3         13         59         407           *** BREAK ***           02:00 PM         1         32         16         49         2         35         2         39         0         3         4         7         8         2         2         12         107           02:15 PM         2         30         21         53         4         40         1         45         1         4         1         6         13         2         4         19         123           02:30 PM         1         29         16         46         0         72         0         72         2         2         2         6         41         4         3         48         172           02:45 PM         5         27         200         11         190         5         206         3         12         9         24         81         11         10         102         53         28         83         3         16         2         1		Ō		14	38	1	25	0	26	1	2	1	4	5	0	-		
02:00 PM       1       32       16       49       2       35       2       39       0       3       4       7       8       2       2       12       107         02:15 PM       2       30       21       53       4       40       1       45       1       4       1       6       13       2       4       19       123         02:30 PM       1       29       16       46       0       72       0       72       2       2       2       6       41       4       3       48       172         02:45 PM       5       27       20       52       5       43       2       50       0       3       2       5       19       3       1       23       130         02:45 PM       5       17       1       1       3       11       10       102       532         03:00 PM       3       41       20       64       1       24       0       25       1       1       1       3       11       1       2       14       106         03:00 PM       2       55       16       73       3		6				9	139	3	151	4	13	9	26	43	3	13	59	407
02:15 PM       2       30       21       53       4       40       1       45       1       4       1       6       13       2       4       19       123         02:30 PM       1       29       16       46       0       72       0       72       2       2       2       6       411       4       3       48       172         02:45 PM       5       27       20       52       5       43       2       50       0       3       2       5       19       3       1       23       130         Total       9       118       73       200       11       190       5       206       3       12       9       24       81       11       100       102       532         03:00 PM       2       53       28       83       3       16       2       21       2       1       5       15       3       4       22       131         03:00 PM       2       55       16       73       3       27       3       32       3       1       6       7       3       16       56       9       11       <	*** BREAK ***																	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	02:00 PM	1	32	16	49	2	35	2	39	0	3	4	7	8	2	2	12	107
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$						4		1		1	4	1	6	13	2	4	19	123
Total         9         118         73         200         11         190         5         206         3         12         9         24         81         11         10         102         532           03:00 PM         3         41         20         64         1         24         0         25         1         1         1         3         111         1         2         14         106           03:00 PM         2         53         28         83         3         16         2         21         2         2         1         5         15         3         4         22         131           03:30 PM         2         55         16         73         3         27         3         33         2         3         1         6         13         4         3         20         132           03:45 PM         2         67         24         93         3         38         4         45         1         0         2         17         1         2         20         160           04:00 PM         5         68         13         86         1         36         1 <td></td> <td>1</td> <td>29</td> <td>16</td> <td>46</td> <td>0</td> <td>72</td> <td>0</td> <td>72</td> <td>2</td> <td>2</td> <td>2</td> <td>6</td> <td>41</td> <td>4</td> <td>3</td> <td>48</td> <td>172</td>		1	29	16	46	0	72	0	72	2	2	2	6	41	4	3	48	172
O3:00 PM       3       41       20       64       1       24       0       25       1       1       1       3       11       1       2       14       106         O3:00 PM       2       53       28       83       3       16       2       21       2       2       1       5       15       3       4       22       131         O3:30 PM       2       55       16       73       3       27       3       33       2       3       1       6       13       4       3       20       132         O3:45 PM       2       67       24       93       3       38       4       45       1       0       2       17       1       2       20       160         Total       9       216       88       313       10       105       9       124       6       7       3       16       56       9       11       76       529         O4:00 PM       5       68       13       86       1       36       1       38       2       2       2       4       11       3       5       19       151	02:45 PM	5	27	20	52	5	43	2	50	0		2	-			•		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Total	9	118	73	200	11	190	5	206	3	12	9	24	81	11	10	102	532
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	03:00 PM	2	41	20	64	1	24	n	25	1	1	1	3	11	1	2	14	106
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		-				-		_	1			-	-			3		132
Total         9         216         88         313         10         105         9         124         6         7         3         16         56         9         11         76         529           04:00 PM         5         68         13         86         1         36         1         38         2         2         2         6         16         3         2         21         151           04:15 PM         5         56         20         81         6         39         2         47         0         2         2         4         11         3         5         19         151           04:30 PM         3         71         16         90         10         25         1         36         1         3         1         5         17         7         6         30         161           04:45 PM         1         74         23         98         1         38         2         41         0         3         1         4         15         4         1         20         163           04:45 PM         1         74         23         98         1         38		_				-		4	45	1	1	Ó	2	17	1	2	20	160
04:05 PM       5       56       20       81       6       39       2       47       0       2       2       4       11       3       5       19       151         04:15 PM       3       71       16       90       10       25       1       36       1       3       1       5       17       7       6       30       161         04:45 PM       1       74       23       98       1       38       2       41       0       3       1       4       15       4       1       20       163         04:45 PM       1       74       23       98       1       38       2       41       0       3       1       4       15       4       1       20       163         Total       14       269       72       355       18       138       6       162       3       10       6       19       59       17       14       90       626         05:00 PM       3       64       14       81       3       56       3       62       0       0       2       2       14       7       1       22 <td< td=""><td></td><td>-</td><td></td><td></td><td></td><td></td><td>105</td><td>9</td><td>124</td><td>6</td><td>7</td><td>3</td><td>16</td><td>56</td><td>9</td><td>11</td><td>76</td><td>529</td></td<>		-					105	9	124	6	7	3	16	56	9	11	76	529
04:05 PM       5       56       20       81       6       39       2       47       0       2       2       4       11       3       5       19       151         04:15 PM       3       71       16       90       10       25       1       36       1       3       1       5       17       7       6       30       161         04:45 PM       1       74       23       98       1       38       2       41       0       3       1       4       15       4       1       20       163         04:45 PM       1       74       23       98       1       38       2       41       0       3       1       4       15       4       1       20       163         Total       14       269       72       355       18       138       6       162       3       10       6       19       59       17       14       90       626         05:00 PM       3       64       14       81       3       56       3       62       0       0       2       2       14       7       1       22 <td< td=""><td></td><td>_</td><td></td><td></td><td></td><td>I</td><td></td><td></td><td></td><td></td><td>-</td><td>-</td><td><b>a</b>  </td><td>40</td><td>~</td><td>•</td><td>0.4</td><td>454</td></td<>		_				I					-	-	<b>a</b>	40	~	•	0.4	454
04:10 rml       3       71       16       90       10       25       1       36       1       3       1       5       17       7       6       30       161         04:30 PM       1       74       23       98       1       38       2       41       0       3       1       4       15       4       1       20       163         04:45 PM       1       74       23       98       1       38       2       41       0       3       1       4       15       4       1       20       163         Total       14       269       72       355       18       138       6       162       3       10       6       19       59       17       14       90       626         05:00 PM       3       64       14       81       3       56       3       62       0       0       2       2       14       7       1       22       167         05:00 PM       3       64       14       81       3       56       3       62       0       0       2       2       14       3       18       187						-							- 1					
O4:35 PM       1       74       23       98       1       38       2       41       0       3       1       4       15       4       1       20       163         O4:45 PM       1       74       23       98       1       38       2       41       0       3       1       4       15       4       1       20       163         Total       14       269       72       355       18       138       6       162       3       10       6       19       59       17       14       90       626         05:00 PM       3       64       14       81       3       56       3       62       0       0       2       2       14       7       1       22       167         05:15 PM       8       72       31       111       2       42       0       44       3       1       0       4       19       6       3       28       187         05:30 PM       2       75       28       105       8       40       2       50       1       4       3       8       13       2       6       21 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td>-</td><td>_</td><td></td><td></td><td></td><td>-</td><td>-</td><td></td><td></td></t<>						-				-	_				-	-		
Total         14         25         355         18         138         6         162         3         10         6         19         59         17         14         90         626           05:00 PM         3         64         14         81         3         56         3         62         0         0         2         2         14         7         1         22         167           05:00 PM         3         64         14         81         3         56         3         62         0         0         2         2         14         7         1         22         167           05:15 PM         8         72         31         111         2         42         0         44         3         1         0         4         19         6         3         28         187           05:30 PM         2         75         28         105         8         40         2         50         1         4         3         8         13         2         6         21         184           05:45 PM         4         59         29         92         6         21         2		-						-		•	-					-		E
O5:00 PM       3       64       14       81       3       56       3       62       0       0       2       2       14       7       1       22       167         05:00 PM       3       64       14       81       3       56       3       62       0       0       2       2       14       7       1       22       167         05:15 PM       8       72       31       111       2       42       0       44       3       10       4       19       6       3       28       187         05:30 PM       2       75       28       105       8       40       2       50       1       4       3       8       13       2       6       21       184         05:45 PM       4       59       29       92       6       21       2       29       0       1       2       3       11       4       4       19       143         Total       17       270       102       389       19       159       7       185       4       6       7       17       57       19       14       90       681     <																		
05:15 PM       8       72       31       111       2       42       0       44       3       1       0       4       19       6       3       28       187         05:30 PM       2       75       28       105       8       40       2       50       1       4       3       8       13       2       6       21       184         05:30 PM       2       75       28       105       8       40       2       50       1       4       3       8       13       2       6       21       184         05:45 PM       4       59       29       92       6       21       2       29       0       1       2       3       11       4       4       19       143         Total       17       270       102       389       19       159       7       185       4       6       7       17       57       19       14       90       681         Grand Total       57       1140       531       1728       77       1156       32       1265       26       69       57       152       391       65       69	TOTAL	14	209	12	555	10	150	U	102	Ŭ	,0	Ū	10	00				, 020
O5:30 PM       2       75       28       105       8       40       2       50       1       4       3       8       13       2       6       21       184         05:30 PM       4       59       29       92       6       21       2       29       0       1       2       3       11       4       4       19       143         05:45 PM       4       59       29       92       6       21       2       29       0       1       2       3       11       4       4       19       143         Total       17       270       102       389       19       159       7       185       4       6       7       17       57       19       14       90       681         Grand Total       57       1140       531       1728       77       1156       32       1265       26       69       57       152       391       65       69       525       3670         Appreh %       3.3       66       30.7       6.1       91.4       2.5       17.1       45.4       37.5       74.5       12.4       13.1 <td>05:00 PM</td> <td>3</td> <td>64</td> <td>14</td> <td>81</td> <td>3</td> <td>56</td> <td>3</td> <td>62</td> <td>0</td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td>	05:00 PM	3	64	14	81	3	56	3	62	0	0					•		
O5:45 PM         4         59         29         92         6         21         2         29         0         1         2         3         11         4         4         19         143           Total         17         270         102         389         19         159         7         185         4         6         7         17         57         19         14         90         681           Grand Total         57         1140         531         1728         77         1156         32         1265         26         69         57         152         391         65         69         525         3670           Apprch %         3.3         66         30.7         6.1         91.4         2.5         17.1         45.4         37.5         74.5         12.4         13.1		8	72	31	111	2	42	0	44	3	1							1
Total         17         270         102         389         19         159         7         185         4         6         7         17         57         19         14         90         681           Grand Total         57         1140         531         1728         77         1156         32         1265         26         69         57         152         391         65         69         525         3670           Apprch %         3.3         66         30.7         6.1         91.4         2.5         17.1         45.4         37.5         74.5         12.4         13.1	05:30 PM	2	75			8	40			1	4		- 1					1
Grand Total         57         1140         531         1728         77         1156         32         1265         26         69         57         152         391         65         69         525         3670           Apprch %         3.3         66         30.7         6.1         91.4         2.5         17.1         45.4         37.5         74.5         12.4         13.1	05:45 PM																	·····
Apprch % 3.3 66 30.7 6.1 91.4 2.5 17.1 45.4 37.5 74.5 12.4 13.1	Total	17	270	102	389	19	159	7	185	4	6	7	17	57	19	14	90	681
Apprch % 3.3 66 30.7 6.1 91.4 2.5 17.1 45.4 37.5 74.5 12.4 13.1	Grand Total	57	1140	531	1728	77	1156	32	1265	26	69	57	152	391	65	69	525	3670
									-	17.1	45.4	37.5		74.5	12.4	13.1		
		•	31.1	14.5	47.1	2.1	31.5		34.5	0.7	1.9	1.6	4.1	10.7	1.8	1.9	14.3	

2160 Kingston Court, Suite 'O' Marietta, GA 30067

TMC DATA Perimeter Rd @ SR 9 7-9 am | 2-4 pm | 4-6 pm

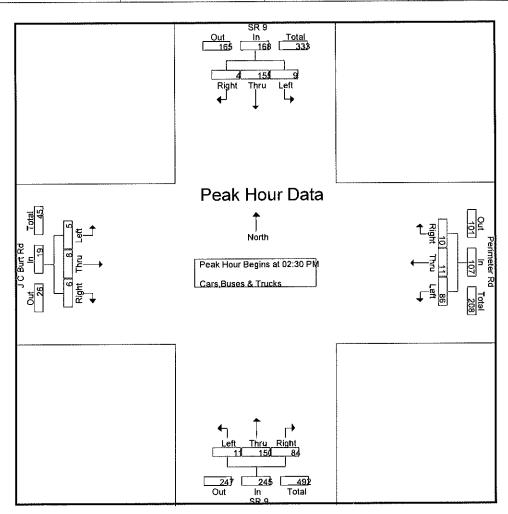
		SF	29			S	R 9				Burt Ro				eter Rd		
		North	bnuoc			South	nbound	[		East	bound			West	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	alysis F	rom 07:	00 AM	to 08:45	AM - Pe	eak 1 c	of 1										
Peak Hour for I	Entire I	ntersec	ti <mark>o</mark> n Be	gins at 07	7:00 AN	1											,
07:00 AM	0	23	17	40	2	91	0	93	1	3	6	10	12	3	1	16	159
07:15 AM	Ō	35	62	97	2	130	1	133	2	8	6	16	28	1	3	32	278
07:30 AM	1	47	40	88	4	125	1	130	1	6	8	15	26	1	2	29	262
07:45 AM	1	46	28	75	2	79	0	81	2	4	3	9	29	1	1	31	196
Total Volume	2	151	147	300	10	425	2	437	6	21	23	50	95	6	7	108	895
% App, Total	0.7	50.3	49		2.3	97.3	0.5		12	42	46		88	5.6	6.5		
PHF	.500	.803	.593	.773	.625	.817	.500	.821	.750	.656	.719	.781	.819	.500	.583	.844	.805



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TMC DATA Perimeter Rd @ SR 9 7-9 am | 2-4 pm | 4-6 pm

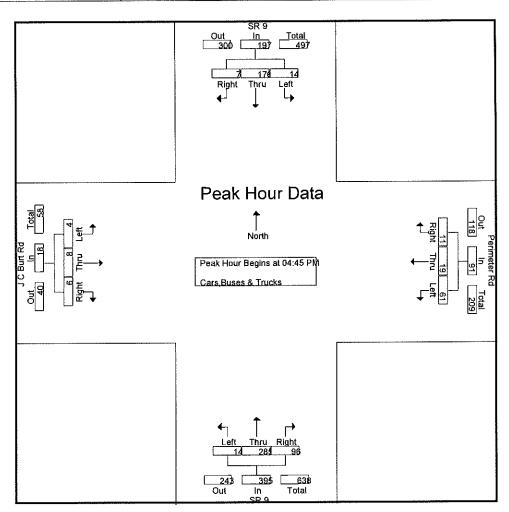
		S	R 9			S	R 9			JCE	Burt Rd				eter Rd		
		North	bound			South	bound			East	bound			West	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right 4	pp. Total	int. Total
Peak Hour Ana	alysis F	rom 02:	00 PM	to 03:45	PM - P	eak 1 o	of 1										
Peak Hour for I	Entire I	ntersec	tion Be	gins at 02	2:30 PN	1											
02:30 PM	1	29	16	46	0	72	0	72	2	2	2	6	41	4	3	48	172
02:45 PM	5	27	20	52	5	43	2	50	0	3	2	5	19	3	1	23	130
03:00 PM	3	41	20	64	1	24	0	25	1	1	1	3	11	1	2	14	106
03:15 PM	2	53	28	83	3	16	2	21	2	2	1	5	15	3	4	22	131
Total Volume	11	150	84	245	9	155	4	168	5	8	6	19	86	11	10	107	539
% App. Total	4.5	61.2	34.3		5.4	92.3	2.4		26.3	42.1	31.6		80.4	10.3	9.3		
PHF	.550	.708	.750	.738	.450	.538	.500	.583	.625	.667	.750	.792	.524	.688	.625	.557	.783



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TMC DATA Perimeter Rd @ SR 9 7-9 am | 2-4 pm | 4-6 pm

Î		S	२ 9			S	R 9			JCE	Burt Rd			Perim	eter Ro		
í – – – – – – – – – – – – – – – – – – –		North	bound			South	bound			East	bound				bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	alysis F	rom 04:	00 PM	to 05:45	PM - P	eak 1 c	of 1										
Peak Hour for I	Entire I	ntersec	tion Be	gins at 0	4:45 PN	1											
04:45 PM	1	74	23	98	1	38	2	41	0	3	1	4	15	4	1	20	163
05:00 PM	3	64	14	81	3	56	3	62	0	0	2	2	14	7	1	22	167
05:15 PM	8	72	31	111	2	42	0	44	3	1	0	4	19	6	3	28	187
05:30 PM		75	28	105	8	40	2	50	1	4	3	8	13	2	6	21	184
Total Volume	14	285	96	395	14	176	7	197	4	8	6	18	61	19	11	91	701
% App. Total	3.5	72.2	24.3		7.1	89.3	3.6		22.2	44.4	33.3		67	20.9	12.1		
PHF	.438	.950	.774	.890	.438	.786	.583	.794	.333	.500	.500	.563	.803	.679	.458	.813	.937



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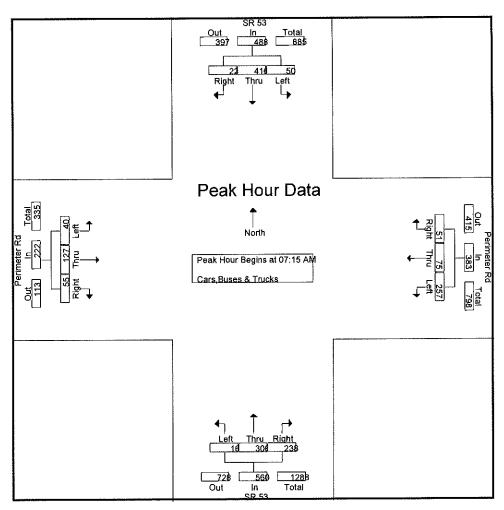
TMC DATA Perimeter Rd @ SR 53 7-9 am | 2-4 pm | 4-6 pm

								d- Cars,									
		SF	2 53			SI	R 53				eter Rd			Perime			
		North				South	bound				bound			West			
Start Time	Left	Thru	Right	App. Totał	Left	Thru	Right	App, Total	Left	Thru	Right A		Left	Thru		App, Total	int. Total
07:00 AM	3	43	26	72	12	78	0	90	3	16	15	34	25	9	6	40	236
07:15 AM	1	71	84	156	18	85	5	108	8	44	16	68	46	19	17	82	414
07:30 AM	2	90	108	200	26	115	6	147	15	50	12	77	77	16	15	108	532
07:45 AM	5	74	29	108	3	122	7	132	12	11	17	40	82	15	9	106	386
Total	11	278	247	536	59	400	18	477	38	121	60	219	230	59	47	336	1568
08:00 AM	8	71	17	96	3	94	4	101	5	22	10	37	52	25	10	87	321
08:15 AM	8	83	18	109	5	62	5	72	2	6	13	21	26	8	3	37	239
08:30 AM	7	72	14	93	2	75	1	78	4	1	15	20	20	6	0	26	217
08:45 AM	5	70	18	93	0	84	1	85	1	5	9	15	29	1	1	31	224
Total	28	296	67	391	10	315	11	336	12	34	47	93	127	40	14	181	1001
*** BREAK ***																	
02:00 PM	10	94	23	127	7	97	6	110	5	10	3	18	21	4	4	29	284
02:15 PM	9	110	36	155	10	96	5	111	4	16	8	28	31	7	8	46	340
02:30 PM	7	120	43	170	19	94	7	120	8	14	8	30	70	25	19	114	434
02:45 PM	3	101	31	135	2	110	9	121	6	9	12	27	68	28	10	106	389
Total	29	425	133	587	38	397	27	462	23	49	31	103	190	64	41	295	1447
03:00 PM	5	108	26	139	3	94	4	101	7	21	9	37	40	5	8	53	330
03:15 PM	7	103	26	136	3	80	8	91	6	9	8	23	62	18	11	91	34
03:30 PM	13	106	29	148	1	73	6	80	10	11	4	25	33	8	4	45	29
03:45 PM	10	103	33	146	2	81	6	89	3	19	10	32	21	7	3	31	29
Total	35	420	114	569	9	328	24	361	26	60	31	117	156	38	26	220	126
04:00 PM	9	113	34	156	3	91	10	104	5	10	4	19	26	8	6	40	31
04:15 PM	15	110	48	173	4	87	2	93	9	8	4	21	27	8	7	42	32
04:30 PM	11	124	51	186	6	87	10	103	5	14	9	28	42	10	8	60	37
04:45 PM	15	117	40	172	7	80	2	89	9	14	11	34	35	12	7	54	349
Total	50	464	173	687	20	345	24	389	28	46	28	102	130	38	28	196	137
05:00 PM	14	98	44	156	6	87	6	99	1	9	6	16	25	11	5	41	31
05:15 PM	15	137	46	198	1	103	6	110	7	10	8	25	24	7	5	36	36
05:30 PM	14	121	55	190	3	85	8	96	8	28	10	46	23	5	3	31	36
05:45 PM	14	114	43	171	5	86	7	98	13	16	9	38	27	5	4	36	34
Total	57	470	188	715	15	361	27	403	29	63	33	125	99	28	17	144	138
Grand Total	210	2353	922	3485	151	2146	131	2428	156	373	230	759	932	267	173	1372	804
Apprch %	6	67.5	26.5		6.2	88.4	5.4		20.6	49.1	30.3		67.9	19.5	12.6		
Total %	2.6	29.3	11.5	43.3	1.9	26.7	1.6	30.2	1.9	4.6	2.9	9.4	11.6	3.3	2.2	17.1	1

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TMC DATA Perimeter Rd @ SR 53 7-9 am | 2-4 pm | 4-6 pm

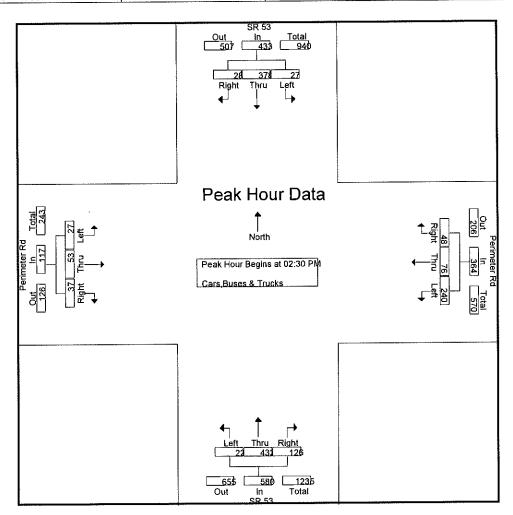
			1 53				२ 53	_			eter Rd				eter Rd		
		North	bound			South	bound			East	bound			West	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Tolai
Peak Hour Ana	alysis F	rom 07:	00 AM	to 0 <b>8</b> :45	AM - P	eak 1 o	if 1										
Peak Hour for	Entire I	ntersec	tion Be	gins at 01	7:15 AN	۸											
07:15 AM	1	71	84	156	18	85	5	108	8	44	16	68	46	19	17	<b>8</b> 2	414
07:30 AM	2	90	108	200	26	115	6	147	15	50	12	77	77	16	15	108	532
07:45 AM	5	74	29	108	3	122	7	132	12	11	17	40	82	15	9	106	386
08:00 AM	8	71	17	96	3	94	4	101	5	22	10	37	52	25	10	87	321
Total Volume	16	306	238	560	50	416	22	488	40	127	55	222	257	75	51	383	1653
% App. Total	2.9	54.6	42.5		10.2	85.2	4.5		18	57.2	24.8		67.1	19.6	13.3		
PHF	.500	.850	.551	.700	.481	.852	.786	.830	.667	.635	.809	.721	.784	.750	.750	.887	.777



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TMC DATA Perimeter Rd @ SR 53 7-9 am | 2-4 pm | 4-6 pm

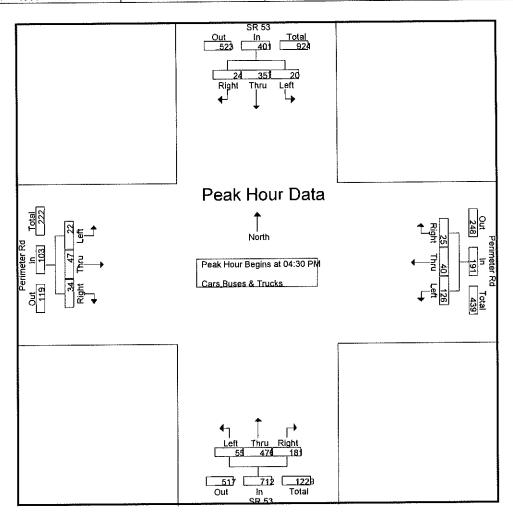
			53				R 53 nbound				eter Rd bound				eter Ro bound		
			bound						4-1			App. Total	Left	Thru		App. Total	Int. Total
Start Time	Left			App, Tolal	Left	Thru		App, Total	Left	Thru	Right	ripp: rotar	Leit	Thu	Tugit	1 44	
Peak Hour Ana	alysis F	rom 02:	.00 PM	to 03:45	PM - Pe	eak 1 c	of 1										
Peak Hour for I	Entire I	ntersec	tion Be	gins at 02	2:30 PN	1											
02:30 PM	7	120	43	170	19	94	7	120	8	14	8	30	70	25	19	114	434
02:45 PM	3	101	31	135	2	110	9	121	6	9	12	27	68	28	10	106	389
03:00 PM		108	26	139	3	94	4	101	7	21	9	37	40	5	8	53	330
03:15 PM		103	26	136	3	80	8	91	6	9	8	23	62	18	<u>11</u>	91	341
Total Volume	22	432	126	580	27	378	28	433	27	53	37	117	240	76	48	364	1494
% App, Total	3.8	74.5	21.7		6.2	87.3	6.5		23.1	45.3	31.6		65.9	20.9	13.2		
PHF	.786	.900	.733	.853	.355	.859	.778	.895	.844	.631	.771	.791	.857	.679	.632	.798	.861



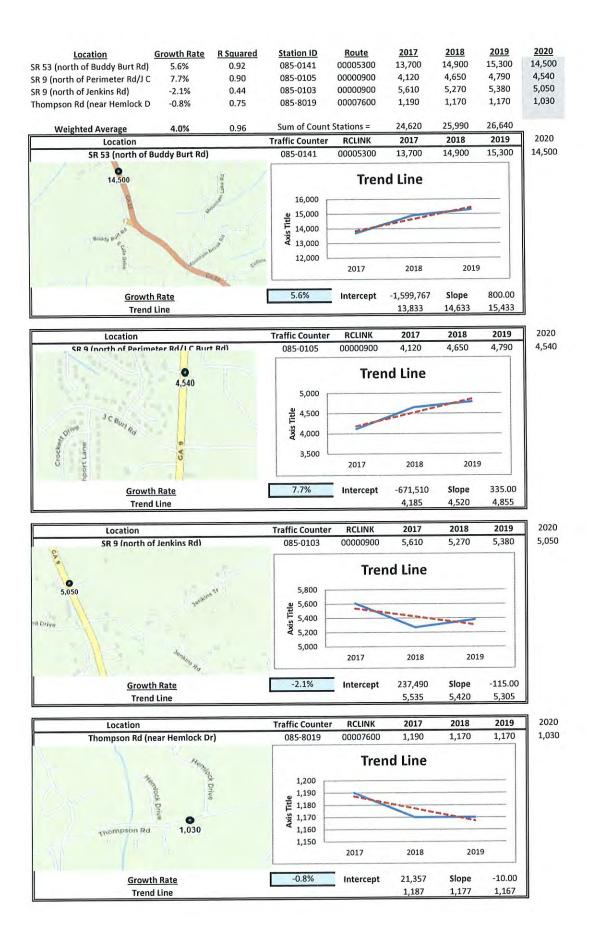
2160 Kingston Court, Suite 'O' Marietta, GA 30067

TMC DATA Perimeter Rd @ SR 53 7-9 am | 2-4 pm | 4-6 pm

			\$ 53				2 53				eter Rd			Perime	eter Rd bound		
		North	bound			South	bound			East	bound						
Start Time	Left	Thru		App, Totai	Left	Thru		App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Totai	Int. Total
Peak Hour Ana	alysis F	rom 04	:00 PM	to 05:45	PM - P	eak 1 o	f 1										
Peak Hour for I	Entire I	ntersec	tion Be	gins at 0	4:30 PN	1											
04:30 PM	11	124	51	<b>186</b>	6	87	10	103	5	14	9	28	42	10	8	60	377
04:45 PM	15	117	40	172	7	80	2	89	9	14	11	34	35	12	7	54	349
05:00 PM	14	98	44	156	6	87	6	99	1	9	6	16	25	11	5	41	312
05:15 PM	15	137	46	198	1	103	6	110	7	10	8	25	24	7	5	36	369
Total Volume	55	476	181	712	20	357	24	401	22	47	34	103	126	40	25	191	1407
% App. Total	7.7	66.9	25.4		5	89	6		21.4	45.6	33		66	20.9	13.1		
PHF	.917	.869	.887	.899	.714	.867	.600	.911	.611	.839	.773	.757	.750	.833	.781	.796	.933



LINEAR REGRESSION OF DAILY TRAFFIC



EXISTING INTERSECTION ANALYSIS

#### Timings 1: SR 53 & Perimeter Rd

	*	-	1	+	1	1	1	1	1
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	۲	1.	٦	Þ	7	1	1	ħ.	Þ
Traffic Volume (vph)	40	127	257	75	16	306	238	50	416
Future Volume (vph)	40	127	257	75	16	306	238	50	416
Lane Group Flow (vph)	51	234	329	161	21	392	305	64	561
Turn Type	Perm	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	1 onn	4	3	8	1	6		5	2
Permitted Phases	4		8		6		6	2	
Detector Phase	4	4	3	8	1	6	6	5	2
Switch Phase									
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	31.5	31.5	15.0	30.5	15.0	28.5	28.5	15.0	28.5
Total Split (s)	31.6	31.6	23.0	54.6	15.0	50.4	50.4	15.0	50.4
Total Split (%)	26.3%	26.3%	19.2%	45.5%	12.5%	42.0%	42.0%	12.5%	42.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
_ost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min
Act Effct Green (s)	19.8	19.8	42.7	42.7	60.6	55.4	55.4	64.9	61.3
Actuated g/C Ratio	0.16	0.16	0.36	0.36	0.50	0.46	0.46	0.54	0.51
v/c Ratio	0.25	0.76	0.93	0.25	0.06	0.48	0.35	0.14	0.62
Control Delay	44.9	60.0	64.0	21.3	14.7	27.1	7.3	14.8	27.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.9	60.0	64.0	21.3	14.7	27.1	7.3	14.8	27.5
LOS	D	E	Е	С	В	С	А	В	С
Approach Delay		57.3		50.0		18.3			26.2
Approach LOS		Е		D		В			С
Queue Length 50th (ft)	35	162	199	68	7	213	29	22	272
Queue Length 95th (ft)	59	198	#224	91	19	285	63	42	424
Internal Link Dist (ft)		1314		635		704			962
Turn Bay Length (ft)	140		210		180		135	185	
Base Capacity (vph)	265	399	356	735	385	820	860	468	903
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.59	0.92	0.22	0.05	0.48	0.35	0.14	0.62
ntersection Summary									
Cycle Length: 120									
Actuated Cycle Length: 120	0								
Offset: 0 (0%), Referenced		SBTL a	d 6:NBTI	Start of	Green				
Natural Cycle: 90	to pridoo z			-, otari ol	Sicon				
Control Type: Actuated-Co	ordinated								
Maximum v/c Ratio: 0.93	orunnatou								
ntersection Signal Delay: 3	33.2				ntersectio	n LOS: C			
Intersection Orginal Delay.					CILLevel				

Intersection Signal Delay: 33.2 Intersection Capacity Utilization 70.0% Analysis Period (min) 15

ICU Level of Service C

A&R Engineering 22-013 Townhomes on Perimeter Rd Synchro 11 Report Page 1

#### Timings 1: SR 53 & Perimeter Rd

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

#### Splits and Phases: 1: SR 53 & Perimeter Rd

101	Ø2 (R)	<b>\$</b> Ø3	Ø4
15 8	50.4s	23 s	31.6 s
<b>1</b> 05	🖕 🕈 ø6 (R)	₹ø8	
15 5	50.4 s	54.6 s	

### HCM 6th Signalized Intersection Summary 1: SR 53 & Perimeter Rd

	1	-	>	1	+	4	1	1	1	6	ŧ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	5	Þ		1	1+		Ĭ	1	1	٦	4	
Traffic Volume (veh/h)	40	127	55	257	75	51	16	306	238	50	416	22
Future Volume (veh/h)	40	127	55	257	75	51	16	306	238	50	416	22
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	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	51	163	71	329	96	65	21	392	305	64	533	28
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	247	189	82	347	358	243	323	864	763	377	841	44
Arrive On Green	0.15	0.15	0.15	0.15	0.34	0.34	0.02	0.48	0.48	0.04	0.50	0.50
Sat Flow, veh/h	1225	1235	538	1781	1040	704	1781	1796	1585	1781	1691	89
Grp Volume(v), veh/h	51	0	234	329	0	161	21	392	305	64	0	561
Grp Sat Flow(s), veh/h/ln	1225	0	1773	1781	0	1744	1781	1796	1585	1781	0	1780
Q Serve(g_s), s	4.4	0.0	15.5	17.5	0.0	8.0	0.7	17.4	14.8	2.2	0.0	27.8
Cycle Q Clear(g_c), s	4.4	0.0	15.5	17.5	0.0	8.0	0.7	17.4	14.8	2.2	0.0	27.8
Prop In Lane	1.00		0.30	1.00		0.40	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	247	0	271	347	0	601	323	864	763	377	0	885
V/C Ratio(X)	0.21	0.00	0.86	0.95	0.00	0.27	0.07	0.45	0.40	0.17	0.00	0.63
Avail Cap(c_a), veh/h	326	0	386	347	0	713	426	864	763	453	0	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.9	0.0	49.6	36.9	0.0	28.4	17.9	20.7	20.0	15.8	0.0	22.2
Incr Delay (d2), s/veh	0.4	0.0	13.2	34.6	0.0	0.2	0.1	1.7	1.6	0.2	0.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	7.7	11.1	0.0	3.3	0.3	7.3	5.5	0.8	0.0	11.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	0.0	62.8	71.5	0.0	28.6	18.0	22.4	21.6	16.0	0.0	25.6
LnGrp LOS	D	A	E	E	A	С	В	С	С	В	А	C
Approach Vol, veh/h		285			490			718	-		625	
Approach Delay, s/veh		59.7			57.4			21.9			24.6	
Approach LOS		E			E			С			С	
	4		2	4		C						
Timer - Assigned Phs	1	2	3	4	5	6 63.2		8 46.8				
Phs Duration (G+Y+Rc), s	8.0	65.1	23.0	23.8	9.9	5.5		5.5				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5 44.9		49.1				
Max Green Setting (Gmax), s	9.5	44.9	17.5	26.1	9.5			49.1				
Max Q Clear Time (g_c+l1), s		29.8	19.5	17.5	4.2	19.4	-	0.9				
Green Ext Time (p_c), s	0.0	5.3	0.0	0.9	0.0	7.1		0.9	1			
Intersection Summary	_											
HCM 6th Ctrl Delay			36.0									
HCM 6th LOS			D									

Int Delay, s/veh         1.1           Movement         EBT         EBR         WBL         WBT         NBL         NBR           Lane Configurations         Image: Conflictions         Im	Intersection						-
Movement         EBT         EBR         WBL         WBT         NBL         NBR           Lane Configurations         1         2         10         102         6         22           Traffic Vol, veh/h         191         2         10         102         6         22           Conflicting Peds, #/hr         0         0         0         0         0         0         0         0           Sign Control         Free         Free         Free         Free         Free         None         None <td>Int Delay, s/veh</td> <td>1.1</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Int Delay, s/veh	1.1					
Lane Configurations         Image: Configurations         <		FRT	FRD	WRL	WRT	NRI	NBR
Traffic Vol, veh/h       191       2       10       102       6       22         Future Vol, veh/h       191       2       10       102       6       22         Conflicting Peds, #/hr       0       0       0       0       0       0         Sign Control       Free       Free       Free       Free       Free       Stop       Stop         RT Channelized       -       None       -       None       -       None       -       None         Storage Length       -       -       -       0       0       -       -       0       -       -       0       0       -       -       0       0       -       -       0       0       -       -       0       0       -       -       0       0       -       -       0       0       -       -       0       0       -       22       2 <t< td=""><td></td><td></td><td>LDK</td><td>VVDL</td><td></td><td></td><td>NDIX</td></t<>			LDK	VVDL			NDIX
Future Vol, veh/h       191       2       10       102       6       22         Conflicting Peds, #/hr       0       0       0       0       0       0         Sign Control       Free       Free       Free       Free       Free       Stop       Stop         RT Channelized       -       None       -       None       -       None       -       None         Storage Length       -       -       0       0       -       -       0       0       -         Grade, %       0       -       -       0       0       -       -       0       0       -         Peak Hour Factor       79       74       -       542       -       Critical Hdwy Stg 1       - </td <td></td> <td></td> <td>2</td> <td>10</td> <td></td> <td>and the second second</td> <td>22</td>			2	10		and the second second	22
Conflicting Peds, #/hr         0         0         0         0         0         0         0         0           Sign Control         Free         Free         Free         Free         Stop         Stop           RT Channelized         -         None         -         None         -         None           Storage Length         -         -         -         0         0         -           Grade, %         0         -         -         0         0         -           Peak Hour Factor         79         79         79         79         79         79           Heavy Vehicles, %         2							
Sign Control         Free         Free         Free         Free         Stop         Stop           RT Channelized         -         None         -         None         -         None           Storage Length         -         -         0         0         -           Grade, %         0         -         -         0         0         -           Grade, %         0         -         -         0         0         -           Peak Hour Factor         79         79         79         79         79         79           Heavy Vehicles, %         2							
RT Channelized       -       None       -       None       -       None         Storage Length       -       -       0       0       -         Grade, %       0       -       -       0       0       -         Grade, %       0       -       -       0       0       -         Peak Hour Factor       79       79       79       79       79       79         Heavy Vehicles, %       2 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
Storage Length       -       -       -       0       -         Veh in Median Storage, #       0       -       -       0       0       -         Grade, %       0       -       -       0       0       -         Peak Hour Factor       79       79       79       79       79       79         Heavy Vehicles, %       2       3       5       5       6       2       2       2       1       5       5       -2       2       1       1       5       4       2       2 <td></td> <td></td> <td></td> <td></td> <td></td> <td>A</td> <td></td>						A	
Veh in Median Storage, #       0       -       -       0       0       -         Grade, %       0       -       -       0       0       -         Peak Hour Factor       79       79       79       79       79       79       79         Heavy Vehicles, %       2 </td <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td>				-			
Grade, %       0       -       -       0       0       -         Peak Hour Factor       79       79       79       79       79       79       79         Heavy Vehicles, %       2	Storage Length			-			
Peak Hour Factor       79       79       79       79       79       79       79       79         Heavy Vehicles, %       2       3       33       33       3       3       3       3       3       3       3       3       3       3       3       3       3       3							
Heavy Vehicles, %       2       2       2       2       2       2       2       2       2       2       Major       Major       Major       Major       Major       Major       Minort         Major/Minor       Major1       Major2       Minort       Minort       0       0       245       0       399       244         Stage 1       -       -       -       244       -       Stage 2       -       -       244       -         Stage 2       -       -       -       155       -       -       155       -         Critical Hdwy       -       -       4.12       -       6.42       6.22       -       -       5.42       -       -       Critical Hdwy Stg 2       -       -       -       5.42       -       -       Critical Hdwy Stg 2       -       -       -       5.42       -       -       Critical Hdwy Stg 2       -       -       -       5.42       -       -       Critical Hdwy Stg 2       -       -       -       5.42       -       -       Follow-up Hdwy       -       2.218       3.518       3.318       Pot Cap-1 Maneuver       -       1321       -       600							
Mumt Flow         242         3         13         129         8         28           Major/Minor         Major1         Major2         Minor1           Conflicting Flow All         0         0         245         0         399         244           Stage 1         -         -         -         244         -         Stage 2         -         -         -         244         -           Stage 2         -         -         -         155         -         -         155         -           Critical Hdwy         -         4.12         -         6.42         6.22         -           Critical Hdwy Stg 1         -         -         -         5.42         -         -         5.42         -           Critical Hdwy Stg 2         -         -         2.218         -         3.518         3.318           Pot Cap-1 Maneuver         -         1321         -         607         795         Stage 2         -         -         797         -           Stage 2         -         -         1321         -         600         -         95           Mov Cap-1 Maneuver         -         1321         -							
Major/Minor         Major1         Major2         Minor1           Conflicting Flow All         0         0         245         0         399         244           Stage 1         -         -         -         244         -           Stage 2         -         -         -         244         -           Stage 2         -         -         -         244         -           Critical Hdwy         -         4.12         -         6.42         6.22           Critical Hdwy Stg 1         -         -         -         5.42         -           Critical Hdwy Stg 2         -         -         5.42         -         -           Follow-up Hdwy         -         2.218         -         3.518         3.318           Pot Cap-1 Maneuver         -         1321         -         607         795           Stage 1         -         -         -         797         -           Stage 2         -         -         1321         -         600         795           Mov Cap-1 Maneuver         -         1321         -         600         -         Stage 1         -         -         797							
Conflicting Flow All         0         0         245         0         399         244           Stage 1         -         -         -         244         -           Stage 2         -         -         -         244         -           Stage 2         -         -         -         244         -           Critical Hdwy         -         4.12         -         6.42         6.22           Critical Hdwy Stg 1         -         -         5.42         -           Critical Hdwy Stg 2         -         -         5.42         -           Critical Hdwy Stg 2         -         -         5.42         -           Critical Hdwy Stg 2         -         -         7.42         -           Coritical Hdwy Stg 2         -         -         7.42         -           Coritical Hdwy Stg 2         -         -         7.97         -           Stage 1         -         -         7.97         -         Stage 2         -         -         873         -           Mov Cap-1 Maneuver         -         1321         -         600         7.95         -         5.42         -         -         7.97	Mvmt Flow	242	3	13	129	8	28
Conflicting Flow All         0         0         245         0         399         244           Stage 1         -         -         -         244         -           Stage 2         -         -         -         244         -           Stage 2         -         -         -         244         -           Critical Hdwy         -         4.12         -         6.42         6.22           Critical Hdwy Stg 1         -         -         5.42         -           Critical Hdwy Stg 2         -         -         5.42         -           Critical Hdwy Stg 2         -         -         5.42         -           Critical Hdwy Stg 2         -         -         7.42         -           Coritical Hdwy Stg 2         -         -         7.42         -           Coritical Hdwy Stg 2         -         -         7.97         -           Stage 1         -         -         7.97         -         Stage 2         -         -         873         -           Mov Cap-1 Maneuver         -         1321         -         600         7.95         -         5.42         -         -         7.97							
Conflicting Flow All         0         0         245         0         399         244           Stage 1         -         -         -         244         -           Stage 2         -         -         -         244         -           Stage 2         -         -         -         244         -           Critical Hdwy         -         4.12         -         6.42         6.22           Critical Hdwy Stg 1         -         -         5.42         -           Critical Hdwy Stg 2         -         -         5.42         -           Critical Hdwy Stg 2         -         -         5.42         -           Critical Hdwy Stg 2         -         -         7.42         -           Coritical Hdwy Stg 2         -         -         7.42         -           Coritical Hdwy Stg 2         -         -         7.97         -           Stage 1         -         -         7.97         -         Stage 2         -         -         873         -           Mov Cap-1 Maneuver         -         1321         -         600         7.95         -         5.42         -         -         7.97	Major/Minor M	aior1	I	Major2	-	Vinor1	3
Stage 1         -         -         244         -           Stage 2         -         -         155         -           Critical Hdwy         -         4.12         -         6.42         6.22           Critical Hdwy Stg 1         -         -         5.42         -           Critical Hdwy Stg 2         -         -         5.42         -           Critical Hdwy Stg 2         -         -         5.42         -           Follow-up Hdwy         -         2.218         -         3.518         3.318           Pot Cap-1 Maneuver         -         1321         607         795           Stage 2         -         -         873         -           Platoon blocked, %         -         -         873         -           Mov Cap-1 Maneuver         -         1321         600         795           Mov Cap-2 Maneuver         -         -         797         -           Stage 1         -         -         797         -           Stage 2         -         -         863         -           Mov Cap-2 Maneuver         -         10.7         10.1           HCM Control Delay, s <t< td=""><td></td><td>and the second division of the second divisio</td><td></td><td></td><td></td><td></td><td>244</td></t<>		and the second division of the second divisio					244
Stage 2       -       -       -       155       -         Critical Hdwy Stg 1       -       -       5.42       6.22         Critical Hdwy Stg 1       -       -       5.42       -         Critical Hdwy Stg 2       -       -       5.42       -         Follow-up Hdwy       -       2.218       -       5.42       -         Follow-up Hdwy       -       2.218       -       3.518       3.318         Pot Cap-1 Maneuver       -       1321       607       795         Stage 2       -       -       -       797       -         Stage 2       -       -       -       873       -         Platoon blocked, %       -       -       -       797       -         Mov Cap-1 Maneuver       -       1321       600       795         Mov Cap-2 Maneuver       -       -       797       -         Stage 1       -       -       797       -         Stage 1       -       -       797       -         Stage 2       -       -       863       -         HCM Control Delay, s       0       0.7       10.1       -			U	240			
Critical Hdwy       -       4.12       -       6.42       6.22         Critical Hdwy Stg 1       -       -       5.42       -         Critical Hdwy Stg 2       -       -       5.42       -         Follow-up Hdwy       -       2.218       -       3.518       3.318         Pot Cap-1 Maneuver       -       1321       -       607       795         Stage 1       -       -       -       797       -         Stage 2       -       -       -       873       -         Platoon blocked, %       -       -       -       -       797         Mov Cap-1 Maneuver       -       1321       -       600       795         Mov Cap-1 Maneuver       -       -       -       -       -         Mov Cap-2 Maneuver       -       -       -       600       -         Stage 1       -       -       -       797       -         Stage 2       -       -       -       863       -         Mov Cap-2 Maneuver       -       -       -       797       -         Stage 2       -       -       -       863       -				-			
Critical Hdwy Stg 1       -       -       5.42       -         Critical Hdwy Stg 2       -       -       5.42       -         Follow-up Hdwy       -       2.218       -       3.518       3.318         Pot Cap-1 Maneuver       -       1321       -       607       795         Stage 1       -       -       -       797       -         Stage 2       -       -       -       873       -         Platoon blocked, %       -       -       -       600       795         Mov Cap-1 Maneuver       -       1321       -       600       795         Mov Cap-1 Maneuver       -       1321       -       600       795         Mov Cap-2 Maneuver       -       -       -       797       -         Stage 1       -       -       -       797       -         Stage 2       -       -       -       863       -         HCM Control Delay, s       0       0.7       10.1       -         HCM Lane //Major Mvmt       NBLn1       EBT       EBR       WBT         Capacity (veh/h)       743       -       1321       -		-	-				
Critical Hdwy Stg 2       -       -       5.42       -         Follow-up Hdwy       -       2.218       -       3.518       3.318         Pot Cap-1 Maneuver       -       1321       -       607       795         Stage 1       -       -       -       797       -         Stage 2       -       -       -       873       -         Platoon blocked, %       -       -       -       -       797         Mov Cap-1 Maneuver       -       1321       -       600       795         Mov Cap-1 Maneuver       -       -       -       -       797         Stage 1       -       -       -       600       795         Mov Cap-2 Maneuver       -       -       600       -         Stage 1       -       -       -       797       -         Stage 2       -       -       -       863       -         HCM Control Delay, s       0       0.7       10.1       -         HCM Lane //Major Mvmt       NBLn1       EBT       EBR       WBT         Capacity (veh/h)       743       -       1321       -         HCM Lane V/C Ratio		-		Concession in the survey of			10000000
Follow-up Hdwy       -       2.218       -       3.518       3.318         Pot Cap-1 Maneuver       -       1321       -       607       795         Stage 1       -       -       -       797       -         Stage 2       -       -       -       873       -         Platoon blocked, %       -       -       -       873       -         Mov Cap-1 Maneuver       -       1321       -       600       795         Mov Cap-1 Maneuver       -       -       1321       -       600       795         Mov Cap-2 Maneuver       -       -       -       600       -       Stage 1       -       -       797       -         Stage 1       -       -       -       797       -       Stage 2       -       -       863       -         VEX       -       -       -       797       -       863       -         Minor Lane/Major Mvmt       NBLn1       EBT       BR       WBT       -       -         Capacity (veh/h)       743       -       1321       -       -       -         HCM Lane V/C Ratio       0.048       -       0.01 </td <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>-</td>		-					-
Pot Cap-1 Maneuver       -       1321       -       607       795         Stage 1       -       -       797       -         Stage 2       -       -       873       -         Platoon blocked, %       -       -       -       873       -         Mov Cap-1 Maneuver       -       1321       600       795         Mov Cap-2 Maneuver       -       -       600       -         Stage 1       -       -       -       600       -         Stage 1       -       -       -       797       -         Stage 2       -       -       -       797       -         Stage 2       -       -       -       797       -         Stage 2       -       -       -       863       -         HCM Control Delay, s       0       0.7       10.1       -         HCM Loos       B       -       -       -       -         Minor Lane/Major Mvmt       NBLn1       EBT       EBR       WBT       -         Capacity (veh/h)       743       -       1321       -         HCM Lane V/C Ratio       0.048       -       0.01 <td></td> <td>6.53</td> <td>1</td> <td></td> <td>-</td> <td></td> <td></td>		6.53	1		-		
Stage 1       -       -       797       -         Stage 2       -       -       873       -         Platoon blocked, %       -       -       -       873       -         Mov Cap-1 Maneuver       -       1321       -       600       795         Mov Cap-2 Maneuver       -       -       1321       -       600       -         Stage 1       -       -       -       797       -       Stage 2       -       -       797       -         Stage 2       -       -       -       797       -       Stage 3       -         Approach       EB       WB       NB       NB       -       -       863       -         HCM Control Delay, s       0       0.7       10.1       -       -       -       -         Minor Lane/Major Mvmt       NBLn1       EBT       EBR       WBT       -       -       -         Capacity (veh/h)       743       -       1321       -       -       -       -         HCM Lane V/C Ratio       0.048       -       0.01       -       -       7.8       0         HCM Lane LOS       B       - <td></td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td></td> <td></td>		-	-		-		
Stage 2       -       -       873       -         Platoon blocked, %       -       -       -       -         Mov Cap-1 Maneuver       -       1321       -       600       795         Mov Cap-2 Maneuver       -       -       -       600       -         Stage 1       -       -       -       600       -         Stage 2       -       -       -       797       -         Stage 2       -       -       -       797       -         Stage 2       -       -       -       863       -         Minor Lane/Major Mvmt       B       NB       NB         Minor Lane/Major Mvmt       NBLn1       EBT       EBR       WBL       WBT         Capacity (veh/h)       743       -       1321       -         HCM Lane V/C Ratio       0.048       -       0.01       -         HCM Control Delay (s)       10.1       -       7.8       0         HCM Lane LOS       B       -       A       A		-	-	1321	-		
Platoon blocked, %       -       -       -         Mov Cap-1 Maneuver       -       1321       -       600       795         Mov Cap-2 Maneuver       -       -       -       600       -         Stage 1       -       -       -       797       -         Stage 2       -       -       -       863       -         Approach       EB       WB       NB         HCM Control Delay, s       0       0.7       10.1         HCM LOS       B       -       -         Minor Lane/Major Mvmt       NBLn1       EBT       EBR       WBL       WBT         Capacity (veh/h)       743       -       1321       -         HCM Lane V/C Ratio       0.048       -       0.01       -         HCM Control Delay (s)       10.1       -       7.8       0         HCM Lane LOS       B       -       A       A		-	-	-	-		÷
Mov Cap-1 Maneuver         -         -         1321         -         600         795           Mov Cap-2 Maneuver         -         -         -         600         -           Stage 1         -         -         -         797         -           Stage 2         -         -         -         863         -           Approach         EB         WB         NB           HCM Control Delay, s         0         0.7         10.1           HCM LOS         B         -         -         B           Minor Lane/Major Mvmt         NBLn1         EBT         EBR         WBT           Capacity (veh/h)         743         -         1321         -           HCM Lane V/C Ratio         0.048         -         0.01         -           HCM Control Delay (s)         10.1         -         7.8         0           HCM Lane LOS         B         -         A         A	Stage 2	-	-	-		873	+
Mov Cap-1 Maneuver         -         1321         -         600         795           Mov Cap-2 Maneuver         -         -         -         600         -           Stage 1         -         -         -         797         -           Stage 2         -         -         -         863         -           Approach         EB         WB         NB         -           HCM Control Delay, s         0         0.7         10.1           HCM LOS         B         -         -           Minor Lane/Major Mvmt         NBLn1         EBT         EBR         WBT           Capacity (veh/h)         743         -         1321         -           HCM Lane V/C Ratio         0.048         -         0.01         -           HCM Control Delay (s)         10.1         -         7.8         0		-	-		-		
Mov Cap-2 Maneuver         -         -         -         600         -           Stage 1         -         -         -         797         -           Stage 2         -         -         -         863         -           Approach         EB         WB         NB         -           HCM Control Delay, s         0         0.7         10.1           HCM LOS         B         -         -           Minor Lane/Major Mvmt         NBLn1         EBT         EBR         WBT           Capacity (veh/h)         743         -         1321         -           HCM Lane V/C Ratio         0.048         -         0.01         -           HCM Control Delay (s)         10.1         -         7.8         0		-	<del>-</del> -	1321	-	600	795
Stage 1         -         -         797         -           Stage 2         -         -         -         863         -           Approach         EB         WB         NB           HCM Control Delay, s         0         0.7         10.1           HCM LOS         B           Minor Lane/Major Mvmt         NBLn1         EBT         EBR         WBL         WBT           Capacity (veh/h)         743         -         1321         -           HCM Lane V/C Ratio         0.048         -         0.01         -           HCM Control Delay (s)         10.1         -         7.8         0           HCM Lane LOS         B         -         A         A		-	-		-	600	-
Stage 2863-ApproachEBWBNBHCM Control Delay, s00.710.1HCM LOSBMinor Lane/Major MvmtNBLn1EBTEBRWBLWBTCapacity (veh/h)743-1321-HCM Lane V/C Ratio0.048-0.01-HCM Control Delay (s)10.1-7.80HCM Lane LOSB-AA			-	-	-		-
ApproachEBWBNBHCM Control Delay, s00.710.1HCM LOSBMinor Lane/Major MvmtNBLn1EBTEBRWBLWBLVBTCapacity (veh/h)743-1321HCM Lane V/C Ratio0.048-0.01-HCM Control Delay (s)10.1-7.80HCM Lane LOSB-AA			-	-	-		-
HCM Control Delay, s00.710.1HCM LOSBMinor Lane/Major MvmtNBLn1EBTEBRWBLWBTCapacity (veh/h)7431321-HCM Lane V/C Ratio0.0480.01-HCM Control Delay (s)10.17.80HCM Lane LOSBAA	Oldyo 2						
HCM Control Delay, s00.710.1HCM LOSBMinor Lane/Major MvmtNBLn1EBTEBRWBLWBTCapacity (veh/h)7431321-HCM Lane V/C Ratio0.0480.01-HCM Control Delay (s)10.17.80HCM Lane LOSBAA							
HCM LOSBMinor Lane/Major MvmtNBLn1EBTEBRWBLWBTCapacity (veh/h)743-1321-HCM Lane V/C Ratio0.048-0.01-HCM Control Delay (s)10.1-7.80HCM Lane LOSB-AA	Approach	EB	in the	WB	the second		14
HCM LOSBMinor Lane/Major MvmtNBLn1EBTEBRWBLWBTCapacity (veh/h)743-1321-HCM Lane V/C Ratio0.0480.01-HCM Control Delay (s)10.17.80HCM Lane LOSB-AA	HCM Control Delay, s	0		0.7		10.1	
Minor Lane/Major MvmtNBLn1EBTEBRWBLWBTCapacity (veh/h)7431321-HCM Lane V/C Ratio0.0480.01-HCM Control Delay (s)10.17.80HCM Lane LOSB-AA						В	
Capacity (veh/h)         743         -         1321         -           HCM Lane V/C Ratio         0.048         -         0.01         -           HCM Control Delay (s)         10.1         -         7.8         0           HCM Lane LOS         B         -         A         A							
Capacity (veh/h)         743         -         1321         -           HCM Lane V/C Ratio         0.048         -         0.01         -           HCM Control Delay (s)         10.1         -         7.8         0           HCM Lane LOS         B         -         A         A	Miner Long/Mains Must		NDI nd	CDT	EDD		M/PT
HCM Lane V/C Ratio         0.048         -         0.01         -           HCM Control Delay (s)         10.1         -         -         7.8         0           HCM Lane LOS         B         -         -         A         A							
HCM Control Delay (s)10.17.80HCM Lane LOSBAA							
HCM Lane LOS B A A				-			
HCM 95th %tile O(veh) 01 0 -					-		
	HCM 95th %tile Q(veh)		0.1	-	-	0	- 10

In	tor	00	oti	on
111	ICI	20	CU	UII

Int Delay, s/veh 5.2 SBT SBR WBT WBR NBL NBT NBR SBL Movement EBL EBT EBR WBL **↔** 21 **4** 6 Lane Configurations 4 4 147 10 425 2 23 95 7 2 151 6 Traffic Vol, veh/h 425 2 2 151 147 10 Future Vol, veh/h 6 21 23 95 6 7 0 0 0 0 0 0 0 0 Conflicting Peds, #/hr 0 0 0 0 Stop Free Free Free Stop Free Free Free Sign Control Stop Stop Stop Stop None None None -**RT** Channelized None -------Storage Length ------------0 0 0 -Veh in Median Storage, # -. -0 ----Grade, % 0 0 0 --0 ------81 81 81 81 81 81 81 81 81 81 Peak Hour Factor 81 81 2 8 2 2 8 Heavy Vehicles, % 2 2 2 2 2 2 2 2 9 2 186 12 525 7 26 28 117 7 181 Mymt Flow

Aajor/Minor	Minor2			Minor1		1	Major1		١	Major2			 
Conflicting Flow All	839	921	526	858	832	277	527	0	0	367	0	0	
Stage 1	550	550	-	281	281	-	-	-		-	-	-	
Stage 2	289	371	-	577	551	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-	
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	+	÷.	-	-	-		
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
ollow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	÷	-	2.218	-	-	
Pot Cap-1 Maneuver	285	270	552	277	305	762	1040		-	1192	-	+	
Stage 1	519	516	-	726	678	-	-	-	-	-		-	
Stage 2	719	620	-	502	515	-	-	-	-		-	-	
Platoon blocked, %												-	
Nov Cap-1 Maneuver	273	266	552	240	300	762	1040	-	-	1192	+	-	
Nov Cap-2 Maneuver	273	266	-	240	300	-	-	-	-	-	-	-	
Stage 1	518	509	-	725	677		-		-		-	-	
Stage 2	702	619	-	446	508			-	-	-		-	
Approach	EB			WB			NB			SB			
ICM Control Delay, s	17.4			33.8	-		0.1			0.2			
HCM LOS	С			D									
1000 C													
Minor Lane/Major Mvn	nt	NBL	NBT	NBR	EBLn1	NBLn1	SBL	SBT	SBR			-	
Capacity (veh/h)		1040		-	351	254	1192	-	-				
HCM Lane V/C Ratio		0.002	-	-	0.176	0.525	0.01	-					
HCM Control Delay (s	)	8.5	0	-	17.4	33.8	8.1	0	-				
HCM Lane LOS		A	А	-	С	D	А	А	-				
HCM 95th %tile Q(veh	)	0		-	0.6	2.8	0	-	-				

#### Timings 1: SR 53 & Perimeter Rd

	٠	-	1	+	1	1	1	1	ŧ	
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Configurations	5	î»	٦	1.	٦	1	1	1	f.	
Traffic Volume (vph)	27	53	240	76	22	432	126	27	378	
Future Volume (vph)	27	53	240	76	22	432	126	27	378	
Lane Group Flow (vph)	31	105	279	144	26	502	147	31	473	
Turn Type	Perm	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4	3	8	1	6		5	2	
Permitted Phases	4		8		6		6	2		
Detector Phase	4	4	3	8	1	6	6	5	2	
Switch Phase										
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	
Minimum Split (s)	31.5	31.5	15.0	30.5	15.0	28.5	28.5	15.0	28.5	
Total Split (s)	31.5	31.5	19.0	50.5	15.0	54.5	54.5	15.0	54.5	
Total Split (%)	26.3%	26.3%	15.8%	42.1%	12.5%	45.4%	45.4%	12.5%	45.4%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lag	Lag	Lead	0.0	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	
Act Effct Green (s)	10.8	10.8	29.8	29.8	75.9	71.9	71.9	75.9	71.9	
Actuated g/C Ratio	0.09	0.09	0.25	0.25	0.63	0.60	0.60	0.63	0.60	
v/c Ratio	0.09	0.03	0.23	0.20	0.05	0.00	0.00	0.06	0.45	
	55.6	50.6	77.7	29.7	8.4	17.2	4.0	8.4	16.6	
Control Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Queue Delay	55.6	50.6	77.7	29.7	8.4	17.2	4.0	8.4	16.6	
Total Delay LOS	55.0 E	50.0 D	E	23.1 C	0.4 A	В	A.	A	B	
		51.7	-	61.4	~	14.0	~	А	16.1	
Approach Delay		51.7 D		61.4 E		14.0 B			B	
Approach LOS	00		104	71	6	226	8	8	207	
Queue Length 50th (ft)	23	58 106	194 #293	116	18	335	38	20	307	
Queue Length 95th (ft)	51		#293	635	10	704	30	20	962	
Internal Link Dist (ft)	440	1314	040	030	180	704	135	185	302	
Turn Bay Length (ft)	140	400	210	677	567	1063	997	544	1057	
Base Capacity (vph)	268	400	301	677				544 0	0	
Starvation Cap Reductn	0	0	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0 47	0 15	0	0 45	
Reduced v/c Ratio	0.12	0.26	0.93	0.21	0.05	0.47	0.15	0.06	0.45	
Intersection Summary										
Cycle Length: 120										
Actuated Cycle Length: 120										
Offset: 0 (0%), Referenced	to phase 2	SBTL ar	nd 6:NBTL	, Start of	Green					
Natural Cycle: 90										
Control Type: Actuated-Co	ordinated									
Maximum v/c Ratio: 0.93										
Intersection Signal Delay: 2	29.1				ntersectio					
Intersection Canacity Ultiliz		6			CULevel	of Servic	еA			

Intersection Capacity Utilization 54.3% Analysis Period (min) 15

ICU Level of Service A

A&R Engineering 22-013 Townhomes on Perimeter Rd

Synchro 11 Report Page 1

#### Timings 1: SR 53 & Perimeter Rd

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

#### Splits and Phases: 1: SR 53 & Perimeter Rd

101	Ø2 (R)	<b>√</b> Ø3	204
15 8	54.5 s	19 s	31.5 s
<b>1</b> 05	🚽 🕈 ø6 (R)	₹ø8	
15 s	54.5 s	50.5 s	

### HCM 6th Signalized Intersection Summary 1: SR 53 & Perimeter Rd

	1	-	7	1	+	*	1	1	1	5	Ŧ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	1.		7	4		1	1	1	٦	12	
Traffic Volume (veh/h)	27	53	37	240	76	48	22	432	126	27	378	28
Future Volume (veh/h)	27	53	37	240	76	48	22	432	126	27	378	28
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	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	31	62	43	279	88	56	26	502	147	31	440	33
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	159	82	57	287	254	162	522	1073	947	453	990	74
Arrive On Green	0.08	0.08	0.08	0.11	0.24	0.24	0.02	0.60	0.60	0.03	0.60	0.60
Sat Flow, veh/h	1244	1029	713	1781	1068	680	1781	1796	1585	1781	1650	124
Grp Volume(v), veh/h	31	0	105	279	0	144	26	502	147	31	0	473
Grp Sat Flow(s), veh/h/ln	1244	0	1742	1781	0	1748	1781	1796	1585	1781	0	1774
Q Serve(g_s), s	2.8	0.0	7.1	13.5	0.0	8.2	0.7	18.7	4.9	0.8	0.0	17.4
	2.8	0.0	7.1	13.5	0.0	8.2	0.7	18.7	4.9	0.8	0.0	17.4
Cycle Q Clear(g_c), s Prop In Lane	1.00	0.0	0.41	1.00	0.0	0.39	1.00	10.1	1.00	1.00		0.07
Lane Grp Cap(c), veh/h	159	0	139	287	0	416	522	1073	947	453	0	1065
V/C Ratio(X)	0.19	0.00	0.75	0.97	0.00	0.35	0.05	0.47	0.16	0.07	0.00	0.44
	330	0.00	377	287	0.00	656	620	1073	947	546	0	1065
Avail Cap(c_a), veh/h	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Platoon Ratio	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Upstream Filter(I)	52.1	0.0	54.1	46.7	0.0	37.9	10.0	13.5	10.7	10.1	0.0	13.1
Uniform Delay (d), s/veh		0.0	8.0	45.1	0.0	0.5	0.0	1.5	0.3	0.1	0.0	1.3
Incr Delay (d2), s/veh	0.6		0.0	45.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0			0.0	3.5	0.0	7.3	1.7	0.3	0.0	6.7
%ile BackOfQ(50%), veh/ln	0.9	0.0	3.4	5.2	0.0	3.0	0.2	1.0	1.7	0.0	0.0	0.1
Unsig. Movement Delay, s/veh		0.0	00.4	04.0	0.0	38.4	10.0	15.0	11.1	10.2	0.0	14.4
LnGrp Delay(d),s/veh	52.7	0.0	62.1	91.8	0.0				B	10.2 B	A	14.4 B
LnGrp LOS	D	A	E	F	A	D	В	B	D	D	504	
Approach Vol, veh/h		136			423			675				
Approach Delay, s/veh		59.9			73.6			13.9			14.2	
Approach LOS		E			E			В			В	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	77.5	19.0	15.1	8.7	77.2		34.1				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	49.0	13.5	26.0	9.5	49.0		45.0				
Max Q Clear Time (g_c+l1), s	2.7	19.4	15.5	9.1	2.8	20.7		10.2				
Green Ext Time (p_c), s	0.0	5.8	0.0	0.5	0.0	7.5		0.8				
Intersection Summary			-					-				
HCM 6th Ctrl Delay			32.1									
HCM 6th LOS			С									

Intersection	129		and and		-	
Int Delay, s/veh	0.9					
-	100		MDL	M/DT	NIDI	NDD
	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	Þ		40	4	M	40
Traffic Vol, veh/h	111	4	12	114	2	13
Future Vol, veh/h	111	4	12	114	2	13
Conflicting Peds, #/hr	0	0	0	0	0	0
	Free	Free	Free	Free	Stop	Stop
RT Channelized		None	•	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #		÷+	-	0	0	
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	152	5	16	156	3	18
Major/Minor M	aior1		Aaior2		Minor1	
	ajor1		Major2			155
Conflicting Flow All	0	0	157	0	343	
Stage 1	-		-	-	155	-
Stage 2	-	•	-		188	-
Critical Hdwy	-		4.12		6.42	6.22
Critical Hdwy Stg 1	-	-	-		5.42	-
Critical Hdwy Stg 2		-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	
Pot Cap-1 Maneuver	-	-	1423	-	653	891
Stage 1	-	-	-	-	873	
Stage 2	-	-	-	-	844	•
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1423	-	645	891
Mov Cap-2 Maneuver	-	-	-	-	645	- 14
Stage 1		-	-	-	873	
Stage 2	-	-	-		834	-
ougo E						
4			14/15		ND	
Approach	EB	and a	WB	Nu la	NB	
HCM Control Delay, s	0		0.7		9.4	
HCM LOS					A	
Minor Lane/Major Mvmt		NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		848	-		1423	-
HCM Lane V/C Ratio		0.024	-		0.012	-
		9.4			-	0
HCM Control Delay (s)			-		7.0 A	A
HCM Lane LOS		A	-	-		A -
HCM 95th %tile Q(veh)		0.1	-	-	0	-

3.8

#### Intersection

Int Delay, s/veh

BL	EBT	EBR	WBL	WBT	WBR	MDI	AIDT	NIDD	ODI	ODT	000	
				1101	VVDR	NBL	NBT	NBR	SBL	SBT	SBR	
	4			\$			4			4		
5	8	6	86	11	10	11	150	84	9	155	4	
5	8	6	86	11	10	11	150	84	9	155	4	
0	0	0	0	0	0	0	0	0	0	0	0	
ор	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
-	-	None	-	-	None	-	-	None	-	-	None	
-	-	-	-	-	-	- (#1)	-	•	-	-	-	
+	0	-		0	-	-	0		-	0	-	
-	0	-	-	0	-		0	-	(H)	0	-	
78	78	78	78	78	78	78	78	78	78	78	78	
2	2	2	2	2	2	2	8	2	2	8	2	
6	10	8	110	14	13	14	192	108	12	199	5	
	5 0 0 - - - 78 2	5 8 0 0 op Stop  - 0 - 0 78 78 2 2	5 8 6 0 0 0 op Stop Stop None  - 0 - - 78 78 78 2 2 2	5       8       6       86         0       0       0       0         op       Stop       Stop       Stop         -       None       -         -       0       -       -         -       0       -       -         78       78       78       78         2       2       2       2	5       8       6       86       11         0       0       0       0       0         op       Stop       Stop       Stop       Stop         -       -       None       -       -         -       0       -       -       0         -       0       -       -       0         -       0       -       -       0         78       78       78       78       78         2       2       2       2       2       2	5       8       6       86       11       10         0       0       0       0       0       0       0         op       Stop       Stop       Stop       Stop       Stop       Stop         -       None       -       -       None         -       0       -       -       0       -         0       -       -       0       -       -         0       -       -       0       -       -         78       78       78       78       78       78         2       2       2       2       2       2       2	5       8       6       86       11       10       11         0       0       0       0       0       0       0         op       Stop       Stop       Stop       Stop       Stop       Free         -       -       None       -       -       None       -         -       0       -       -       0       -       -         0       -       -       0       -       -       -         0       -       -       0       -       -       -         78       78       78       78       78       78       78         2       2       2       2       2       2       2       2       2	5       8       6       86       11       10       11       150         0       0       0       0       0       0       0       0       0         op       Stop       Stop       Stop       Stop       Stop       Stop       Free       Free         -       -       -       -       -       -       -       -         0       -       -       0       -       -       0       -       -         0       -       -       0       -       -       0       -       -       0         0       -       -       0       -       -       0       -       -       0         0       -       -       0       -       -       0       -       -       0         78       78       78       78       78       78       78       78       78         2       2       2       2       2       2       2       8       8	5       8       6       86       11       10       11       150       84         0       0       0       0       0       0       0       0       0       0         op       Stop       Stop       Stop       Stop       Stop       Free       Free       Free         -       None       -       -       None       -       -       None         -       -       -       -       -       -       -       None         -       -       -       -       -       -       -       -       None         -       -       -       -       -       -       -       -       -       -         0       -       -       0       -       -       0       -       -       0         -       0       -       -       0       -       -       0       -       -       0       -         -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -	5       8       6       86       11       10       11       150       84       9         0       0       0       0       0       0       0       0       0       0       0         op       Stop       Stop       Stop       Stop       Stop       Free       Free	5       8       6       86       11       10       11       150       84       9       155         0 <t< td=""><td>5       8       6       86       11       10       11       150       84       9       155       4         0       <t< td=""></t<></td></t<>	5       8       6       86       11       10       11       150       84       9       155       4         0 <t< td=""></t<>

Major/Minor	Minor2			Minor1		1	Major1		١	Major2			-
Conflicting Flow All	514	554	202	509	502	246	204	0	0	300	0	0	
Stage 1	226	226		274	274		-	-	-	-	-	÷	
Stage 2	288	328	-	235	228	-	-	-	-			-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-		
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52		-	-	-	-	-	-	
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318		-	-	2.218	-	-	
Pot Cap-1 Maneuver	471	440	839	475	471	793	1368	-	-	1261	-	-	
Stage 1	777	717	-	732	683	-	-	-	-	-	-		
Stage 2	720	647	-	768	715	-		-	-	-	-	-	
Platoon blocked, %								-	-		-	÷	
Nov Cap-1 Maneuver	445	430	839	454	460	793	1368	-	-	1261	-	-	
Mov Cap-2 Maneuver	445	430	-	454	460	-	-	-	-	-	-	-	
Stage 1	768	709	-	723	675		-	-	-	-	-	-	
Stage 2	685	639	-	742	707	÷	-	-	-	-	-	-	
Approach	EB			WB		-	NB			SB			
-ICM Control Delay, s	12.4			15.7			0.3			0.4			
HCM LOS	В			С									
1											1, 61		
Minor Lane/Major Mvr	nt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				 
Capacity (veh/h)		1368	-	-	514	474	1261	-	-				
HCM Lane V/C Ratio		0.01	-	-	0.047	0.289	0.009	4	-				
HCM Control Delay (s	)	7.7	0		12.4	15.7	7.9	0	-				
HCM Lane LOS		A	A	-	В	С	А	А	-				
		(G1)											

HCM 95th %tile Q(veh)

0

-

0.1

-

1.2

0

-

#### Timings 1: SR 53 & Perimeter Rd

	*	+	1	+	1	1	1	1	÷.	
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Configurations	5	Þ	7	Þ	7	1	1	7	1.	
Traffic Volume (vph)	22	47	126	40	55	476	181	20	357	
Future Volume (vph)	22	47	126	40	55	476	181	20	357	
Lane Group Flow (vph)	24	88	135	70	59	512	195	22	410	
Turn Type	Perm	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	T CHI	4	3	8	1	6	1 onn	5	2	2
Permitted Phases	4	-	8	U	6	U	6	2	-	
Detector Phase	4	4	3	8	1	6	6	5	2	1 C
	4	4	5	0		U	U	Ū	-	
Switch Phase	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	
Minimum Initial (s)	6.0	6.0	15.0	30.5	15.0	28.5	28.5	15.0	28.5	
Minimum Split (s)	31.5	31.5					58.5	15.0	58.5	
Total Split (s)	31.5	31.5	15.0	46.5	15.0	58.5			48.8%	
Total Split (%)	26.3%	26.3%	12.5%	38.8%	12.5%	48.8%	48.8%	12.5%		
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	
Act Effct Green (s)	9.8	9.8	24.6	24.6	82.1	77.3	77.3	78.6	73.8	
Actuated g/C Ratio	0.08	0.08	0.20	0.20	0.68	0.64	0.64	0.66	0.62	
v/c Ratio	0.22	0.53	0.56	0.18	0.09	0.45	0.18	0.04	0.38	
Control Delay	55.0	47.2	49.6	25.9	6.5	13.8	4.4	6.5	14.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	55.0	47.2	49.6	25.9	6.5	13.8	4.4	6.5	14.1	
LOS	D	D	D	С	А	В	А	А	В	
Approach Delay		48.9	54	41.5		10.9			13.7	
Approach LOS		D		D		В			В	
Queue Length 50th (ft)	18	45	91	27	13	205	19	5	157	
Queue Length 95th (ft)	44	96	145	65	29	325	56	14	254	
Internal Link Dist (ft)	44	1314	140	635	20	704	00		962	
Turn Bay Length (ft)	140	1014	210	000	180	104	135	185	UVE	
	286	400	243	617	648	1144	1066	597	1085	
Base Capacity (vph)	200	400	243	017	040	0	000	0	0	
Starvation Cap Reductn		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn		-				0.45		0.04	0.38	
Reduced v/c Ratio	0.08	0.22	0.56	0.11	0.09	0.45	0.18	0.04	0.30	
Intersection Summary										
Cycle Length: 120										
Actuated Cycle Length: 120	)									
Offset: 0 (0%), Referenced	to phase 2	SBTL ar	d 6:NBTI	, Start of	f Green					
Natural Cycle: 90										
Control Type: Actuated-Cod	ordinated									
Maximum v/c Ratio: 0.56										
Intersection Signal Delay: 1	8.6				ntersectio	on LOS: E	3			
Intersection Canacity Utiliza		6			CU Level					

Intersection Capacity Utilization 56.6% Analysis Period (min) 15

ICU Level of Service B

A&R Engineering

22-013 Townhomes on Perimeter Rd

Synchro 11 Report Page 1

#### Timings 1: SR 53 & Perimeter Rd

Splits and Phases: 1: SR 53 & Perimeter Rd

101	🖉 🖌 Ø2 (R)	<b>√</b> Ø3	404
58	58.5 \$	15s	31.5 s
Vø5	• 106 (R)	<b>1</b> Ø8	
S	58.5 s	46.5 s	

#### HCM 6th Signalized Intersection Summary 1: SR 53 & Perimeter Rd

	•	-	7	1	4	*	1	1	1	1	ŧ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	1.		1	1+		٦	1	1	٦	î.	
Traffic Volume (veh/h)	22	47	34	126	40	25	55	476	181	20	357	24
Future Volume (veh/h)	22	47	34	126	40	25	55	476	181	20	357	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	C
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	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	24	51	37	135	43	27	59	512	195	22	384	26
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	152	70	51	227	209	131	633	1161	1025	473	1052	71
Arrive On Green	0.07	0.07	0.07	0.08	0.19	0.19	0.04	0.65	0.65	0.02	0.63	0.63
Sat Flow, veh/h	1331	1008	731	1781	1074	675	1781	1796	1585	1781	1663	113
Grp Volume(v), veh/h	24	0	88	135	0	70	59	512	195	22	0	410
Grp Sat Flow(s), veh/h/ln	1331	0	1739	1781	0	1749	1781	1796	1585	1781	0	1776
Q Serve(g_s), s	2.1	0.0	6.0	8.2	0.0	4.0	1.4	16.9	6.0	0.5	0.0	13.2
Cycle Q Clear(g_c), s	2.1	0.0	6.0	8.2	0.0	4.0	1.4	16.9	6.0	0.5	0.0	13.2
Prop In Lane	1.00	0.0	0.42	1.00	0.0	0.39	1.00	10.0	1.00	1.00	0.0	0.06
	152	0	121	227	0	340	633	1161	1025	473	0	1123
Lane Grp Cap(c), veh/h	0.16	0.00	0.73	0.59	0.00	0.21	0.09	0.44	0.19	0.05	0.00	0.37
V/C Ratio(X)	348	0.00	377	227	0.00	598	710	1161	1025	576	0.00	1123
Avail Cap(c_a), veh/h 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
	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Upstream Filter(I)	52.9	0.0	54.7	45.5	0.0	40.6	7.6	10.5	8.6	8.3	0.0	10.6
Uniform Delay (d), s/veh	0.5	0.0	8.1	45.5	0.0	0.3	0.1	1.2	0.4	0.0	0.0	0.9
Incr Delay (d2), s/veh	0.5	0.0	0.1	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	2.8	3.8	0.0	1.7	0.0	6.3	1.9	0.0	0.0	4.9
%ile BackOfQ(50%),veh/In		0.0	2.0	3.0	0.0	1.7	0.0	0.0	1.9	0.2	0.0	7.0
Unsig. Movement Delay, s/veh		0.0	0.00	40.7	0.0	40.9	7.7	11.7	9.0	8.3	0.0	11.5
LnGrp Delay(d),s/veh	53.4	0.0	62.8	49.7	0.0		7.7 A	н./	9.0 A	0.5 A	A	E
LnGrp LOS	D	A	E	D	A	D	A		A	A	432	
Approach Vol, veh/h		112			205			766				
Approach Delay, s/veh		60.8			46.7			10.7			11.3	-
Approach LOS		E			D			В			В	-
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	81.4	15.0	13.8	8.1	83.1		28.8				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	53.0	9.5	26.0	9.5	53.0		41.0				
Max Q Clear Time (g_c+l1), s	3.4	15.2	10.2	8.0	2.5	18.9		6.0				
Green Ext Time (p_c), s	0.0	5.2	0.0	0.4	0.0	8.6		0.3				
Intersection Summary		_		14 de la			-					
HCM 6th Ctrl Delay			19.4									
HCM 6th LOS			В									

Intersection			1	1			
Int Delay, s/veh	0.7						
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	f.			4	Y		
Traffic Vol, veh/h	125	4	10	99	4	7	
Future Vol, veh/h	125	4	10	99	4	7	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None		None	
Storage Length	+	-	-	-	0	-	
Veh in Median Storage	,# 0	-		0	0	-	
Grade, %	0	-	-	0	0	Ξ.	
Peak Hour Factor	90	90	90	90	90	90	
Heavy Vehicles, %	2	2	2	2	2	2	
Mymt Flow	139	4	11	110	4	8	

Major/Minor	Major1		Major2	-	Minor1	1
Conflicting Flow All	0	0	143	0	273	141
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	132	+
Critical Hdwy	-		4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-		-	5.42	÷
Critical Hdwy Stg 2	-	-		-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	
Pot Cap-1 Maneuver	-	-	1440	-	716	907
Stage 1	-	-		-	886	-
Stage 2	-	-	-	-	894	-
Platoon blocked, %	-	-	×.	-		
Mov Cap-1 Maneuver	-		1440	-		907
Mov Cap-2 Maneuver	-	-		-	710	-
Stage 1	-			-	886	-
Stage 2	-	-		-	887	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.7		9.4	
HCM LOS					А	
Minor Lane/Major Mvn	nt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1. w.	824	- 1	-	1440	
HCM Lane V/C Ratio		0.015	5 -	-	0.008	-
HCM Control Delay (s	)	9.4	- 1	*	7.5	0
HCM Lane LOS		A	- ۱	-	A	А
HCM 95th %tile Q(veh	1)	0	) -	-	0	

2.8

### Intersection

Int Delay, s/veh

and the second												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		-	4			4	
Traffic Vol, veh/h	4	8	6	61	19	11	14	285	96	14	176	7
Future Vol, veh/h	4	8	6	61	19	11	14	285	96	14	176	7
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		- 20	None	-	-	None	-	-	None
Storage Length	-	-	-	4			-		-	-	-	-
Veh in Median Storage,	,# -	0	-		0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-		0		-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	8	2	2	8	2
Mvmt Flow	4	9	6	65	20	12	15	303	102	15	187	7

Major/Minor	Minor2			Minor1		-	Major1			Major2	. de		
Conflicting Flow All	621	656	191	612	608	354	194	0	0	405	0	0	
Stage 1	221	221	-	384	384	-			-		-		
Stage 2	400	435	-	228	224	-	-		-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-	
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	1. <del>9</del>	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-		-	-	
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-		2.218	-	-	
Pot Cap-1 Maneuver	400	385	851	405	410	690	1379	-	-	1154	-	-	
Stage 1	781	720	-	639	611		-	· · · ·	-	-	-	-	
Stage 2	626	580	-	775	718	-	-	-	-		•	-	
Platoon blocked, %								-	-		÷	-	
Mov Cap-1 Maneuver	370	374	851	386	398	690	1379	-	- 1	1154		-	
Mov Cap-2 Maneuver	370	374	-	386	398	-	-	-		-	-	-	
Stage 1	770	709	-	630	602	-	-	-	-	- 9 <del>-</del> -	-	-	
Stage 2	586	572	-	749	707	-		-	-	-	-	-	
Approach	EB			WB			NB			SB			 
HCM Control Delay, s	13.2			16.5	1	-	0.3			0.6		-	
HCM LOS	В			С									
Minor Lane/Major Mvr	nt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	-	1379	-	-	459	410	1154	-	-				

Capacity (ven/n)	13/9	-	-	409	410	1104	-	-	
HCM Lane V/C Ratio	0.011	-	-	0.042	0.236	0.013	-	-	
HCM Control Delay (s)	7.6	0	-	13.2	16.5	8.2	0	-	
HCM Lane LOS	А	А	-	В	С	А	А	+	
HCM 95th %tile Q(veh)	0	-		0.1	0.9	0		-	

A&R Engineering 22-013 Townhomes on Perimeter Rd Synchro 11 Report Page 5

# FUTURE "NO-BUILD" INTERSECTION ANALYSIS

	1	-	1	+	1	Ť	1	1	ŧ
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ň	P	7	Þ	1	1	1	1	Þ
Traffic Volume (vph)	43	137	278	81	17	330	257	54	449
Future Volume (vph)	43	137	278	81	17	330	257	54	449
ane Group Flow (vph)	55	252	356	175	22	423	329	69	607
Furn Type	Perm	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	i enn	4	3	8	1	6	1 onin	5	2
Permitted Phases	4	4	8	U	6	Ű	6	2	
Detector Phase	4	4	3	8	1	6	6	5	2
Switch Phase	7	7	0	U		Ŭ	v		-
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	31.5	31.5	15.0	30.5	15.0	28.5	28.5	15.0	28.5
Total Split (s)	31.5	31.5	23.0	54.5	15.0	50.5	50.5	15.0	50.5
Total Split (%)	26.3%	26.3%	19.2%	45.4%	12.5%	42.1%	42.1%	12.5%	42.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead	0.0	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min
Act Effct Green (s)	20.7	20.7	43.7	43.7	59.6	54.4	54.4	63.2	58.0
Actuated g/C Ratio	0.17	0.17	0.36	0.36	0.50	0.45	0.45	0.53	0.48
v/c Ratio	0.27	0.79	1.01	0.27	0.08	0.53	0.39	0.17	0.71
Control Delay	44.6	61.4	83.5	21.4	15.1	28.8	8.7	15.3	32.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	61.4	83.5	21.4	15.1	28.8	8.7	15.3	32.7
LOS	D	E	F	С	В	С	А	В	С
Approach Delay		58.4	-	63.1		19.9			30.9
Approach LOS		E		E		В			С
Queue Length 50th (ft)	37	176	~218	74	8	240	41	25	389
Queue Length 95th (ft)	63	214	#268	99	19	310	79	45	472
Internal Link Dist (ft)		1314		635		704			962
Turn Bay Length (ft)	140		210		180		135	185	
Base Capacity (vph)	261	398	351	734	330	805	848	437	855
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.63	1.01	0.24	0.07	0.53	0.39	0.16	0.71
Intersection Summary									
Cycle Length: 120									
Actuated Cycle Length: 120	1								
Offset: 0 (0%), Referenced		SBTL ar	d 6:NBTI	, Start of	Green				
Natural Cycle: 100									
Control Type: Actuated-Coc	ordinated								
Maximum v/c Ratio: 1.01									
Intersection Signal Delay: 3	8.3				ntersectio	n LOS: D	)		
Intersection Capacity Utiliza		6		1	CU Level	of Servic	e D		
Analysis Period (min) 15									

A&R Engineering 22-013 Townhomes on Perimeter Rd

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

#### Splits and Phases: 1: SR 53 & Perimeter Rd

101	🚽 🚽 Ø2 (R)	<b>√</b> Ø3		
158	50.5 s	23 8	31.5 s	
<b>1</b> 05	Ø6 (R)	₹ø8		
15 5	50.5 s	54.5 s		

# HCM 6th Signalized Intersection Summary 1: SR 53 & Perimeter Rd

	*	-	7	1	+	*	1	1	1	1	ł	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	5	1.		7	f.		٦	1	1	5	f.	
Traffic Volume (veh/h)	43	137	59	278	81	55	17	330	257	54	449	24
Future Volume (veh/h)	43	137	59	278	81	55	17	330	257	54	449	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	C
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	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	55	176	76	356	104	71	22	423	329	69	576	31
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	257	202	87	347	367	251	278	845	746	345	822	44
Arrive On Green	0.16	0.16	0.16	0.15	0.35	0.35	0.02	0.47	0.47	0.04	0.49	0.49
Sat Flow, veh/h	1210	1239	535	1781	1036	707	1781	1796	1585	1781	1689	91
Grp Volume(v), veh/h	55	0	252	356	0	175	22	423	329	69	0	607
Grp Sat Flow(s), veh/h/ln	1210	0	1774	1781	0	1743	1781	1796	1585	1781	0	1780
Q Serve(g_s), s	4.8	0.0	16.6	17.5	0.0	8.6	0.8	19.6	16.6	2.4	0.0	31.9
Cycle Q Clear(g_c), s	4.8	0.0	16.6	17.5	0.0	8.6	0.8	19.6	16.6	2.4	0.0	31.9
Prop In Lane	1.00	0.0	0.30	1.00	010	0.41	1.00		1.00	1.00	1999 H.S. H.S.	0.05
Lane Grp Cap(c), veh/h	257	0	289	347	0	618	278	845	746	345	0	866
V/C Ratio(X)	0.21	0.00	0.87	1.03	0.00	0.28	0.08	0.50	0.44	0.20	0.00	0.70
Avail Cap(c_a), veh/h	322	0.00	384	347	0	712	381	845	746	420	0	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.1	0.0	49.0	37.2	0.0	27.8	19.5	22.0	21.2	16.9	0.0	24.0
Incr Delay (d2), s/veh	0.4	0.0	15.5	55.2	0.0	0.2	0.1	2.1	1.9	0.3	0.0	4.7
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	1.4	0.0	8.5	13.5	0.0	3.5	0.3	8.3	6.2	0.9	0.0	13.6
Unsig. Movement Delay, s/veh		0.0	0.0	10.0	0.0	0.0	0.0	010	0.1			
LnGrp Delay(d),s/veh	44.5	0.0	64.5	92.4	0.0	28.1	19.6	24.1	23.1	17.1	0.0	28.7
LnGrp LOS	14.5 D	A	64.6 E	F	A	C	B	С	C	В	A	(
Approach Vol, veh/h	0	307			531			774			676	
		60.9			71.2			23.6			27.5	
Approach Delay, s/veh		00.9 E			E			C			C	
Approach LOS						-						
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	63.9	23.0	25.0	10.0	62.0		48.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	45.0	17.5	26.0	9.5	45.0		49.0				
Max Q Clear Time (g_c+l1), s	2.8	33.9	19.5	18.6	4.4	21.6		10.6				
Green Ext Time (p_c), s	0.0	4.7	0.0	0.9	0.0	7.5		1.0			-	
Intersection Summary	-	and the second								_		
HCM 6th Ctrl Delay		-	40.8									
HCM 6th LOS			D									

ntersection	ection
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Intersection	10,5		1			-	and the second second	
Int Delay, s/veh	1.1							
Movement	EBT	EBR	WBL	WBT	NBL	NBR		1
Lane Configurations	4			4	Y			
Traffic Vol, veh/h	206	2	11	110	6	24		
Future Vol, veh/h	206	2	11	110	6	24		_
Conflicting Peds, #/hr	0	0	0	0	0	0		
Sign Control	Free	Free	Free	Free	Stop	Stop		
RT Channelized	-	None	-	None	-	None		
Storage Length		-	-	-	0	+		
Veh in Median Storage,	# 0	-	-	0	0	-		
Grade, %	0	-	-	0	0	-		
Peak Hour Factor	79	79	79	79	79	79		
Heavy Vehicles, %	2	2	2	2	2	2		
Mymt Flow	261	3	14	139	8	30		
				-				

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	C	) 0	264	0	430	263
Stage 1		- · · · ·	-	-	263	-
Stage 2					167	
Critical Hdwy			4.12	-	6.42	6.22
Critical Hdwy Stg 1			-	-	5.42	-
Critical Hdwy Stg 2			- 1	-	5.42	-
Follow-up Hdwy			2.218	-	3.518	
Pot Cap-1 Maneuver			1300	-	582	776
Stage 1			-	-	781	-
Stage 2	-		-	-	863	-
Platoon blocked, %				-		
Mov Cap-1 Maneuver			1300	-	575	776
Mov Cap-2 Maneuver			-	-	575	-
Stage 1			-	-	781	-
Stage 2			-	-	853	-
1						
Approach	EE	3	WB		NB	
HCM Control Delay, s	(	)	0.7		10.2	
HCM LOS					В	
Minor Lane/Major Mvr	nt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		725	-	-	1300	
HCM Lane V/C Ratio		0.052	-	-	0.011	
HCM Control Delay (s	5)	10.2		-	7.8	0
HCM Lane LOS		В	-	-	A	А
HCM 95th %tile Q(veh	n)	0.2	-	-	0	-

6.9

1.00									
n	÷	0	rs	0	0	T	0	n	
	II.		10		U	u	U		

Int Delay, s/veh

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4	-	-	4		_	4			4	-	
Traffic Vol, veh/h	6	23	25	103	6	8	2	163	159	11	459	2	
Future Vol, veh/h	6	23	25	103	6	8	2	163	159	11	459	2	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-		None		-	None	-	-	None	
Storage Length	-	-	-			-		-	+			-	
Veh in Median Storage,	# -	0	-	-	0	-	- 1	0	-	-	0	-	
Grade, %	-	0	-	-	0	-		0		-	0	-	
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81	
Heavy Vehicles, %	2	2	2	2	2	2	2	8	2	2	8	2	
Mvmt Flow	7	28	31	127	7	10	2	201	196	14	567	2	

Major/Minor	Minor2			Minor1			Major1	-		Major2			 
Conflicting Flow All	908	997	568	929	900	299	569	0	0	397	0	0	
Stage 1	596	596		303	303	-	-	-	-	-		-	
Stage 2	312	401	-	626	597	-	-	+	-	-	-	+	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12			
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-		
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218		-	
Pot Cap-1 Maneuver	256	244	522	248	278	741	1003		-	1162	-	-	
Stage 1	490	492	-	706	664	-	-	-	-	-	-	-	
Stage 2	699	601	-	472	491		-	-	-	-	-	-	
Platoon blocked, %								-	-		-	-	
Mov Cap-1 Maneuver	243	239	522	209	272	741	1003	-	-	1162	-	-	
Mov Cap-2 Maneuver	243	239	-	209	272	-		-	-	4	-	-	
Stage 1	489	483	-	704	662	-	-	-	-		-	-	
Stage 2	680	599	-	410	482		-	-	-	-	-	-	
Approach	EB			WB	1.51		NB	-	-	SB	-		
HCM Control Delay, s	19.2			46.7			0.1			0.2			
HCM LOS	С			E									
Minor Lane/Major Mvr	nt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)		1003		-	320	223	1162		-				
HCM Lane V/C Ratio		0.002			0.208	0.648	0.012	4	-				

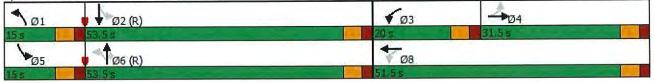
Capacity (veh/h)	1003	-	-	320	223	1162	-	-	
HCM Lane V/C Ratio	0.002	-	-	0.208	0.648	0.012	-	θ.	
HCM Control Delay (s)	8.6	0		19.2	46.7	8.1	0	-	
HCM Lane LOS	А	А	÷	С	E	А	А	-	
HCM 95th %tile Q(veh)	0	-	-	0.8	3.9	0	-	+	

				•				
EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
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								408
								509
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1	4		U		v	6		
	1		8		6			2
4	4	5	0		U	U	U	-
6.0	6.0	50	6.0	5.0	15.0	15.0	5.0	15.0
								28.5
								53.5
								44.6%
								3.5
								2.0
								0.0
								5.5
			0.0					Lag
								Yes
			None					C-Min
								70.3
								0.59
								0.49
								18.4
								0.0
								18.4
								B
E		T.		A		~	~	17.8
								B
25		208		7		12	9	237
								351
54		#010		20		-10	20	962
1/0	1014	210	000	180	104	135	185	002
	300		601		1039			1035
								0
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-			-				0.07	0.49
	SBTL an	d 6:NBTI	., Start of	Green				
rdinated								
anatou								
0.9				ntersectio	n LOS: C			
	1							
				10.00				
	29 29 34 Perm 4 4 4 4 6.0 31.5 31.5 26.3% 3.5 2.0 0.0 5.5 Lag Yes None 11.3 0.09 0.29 55.4 0.0 55.4 0.0 55.4 E 25 54 0.0 55.4 0.0 55.4 E 25 54 0.0 55.4 0.0 55.4 E 25 54 0.0 55.4 0.0 0 55.4 0.0 55.4 0.0 55.4 0.0 0.0 55.4 0.0 0 55.4 0.0 0.0 0.0 55.4 0.0 0.0 0.0 55.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	29       57         29       57         34       113         Perm       NA         4       4         6.0       6.0         5.5       5.5         Lag       Lag         Yes       Yes         None       None         11.3       11.3         0.0       0.0         55.4       51.8         E       D         25 <td>29         57         259           29         57         259           34         113         301           Perm         NA         pm+pt           4         3           4         8           4         4         3           6.0         6.0         5.0           31.5         31.5         15.0           31.5         31.5         20.0           26.3%         26.3%         16.7%           3.5         3.5         3.5           2.0         2.0         2.0           0.0         0.0         0.0           5.5         5.5         5.5           Lag         Lag         Lead           Yes         Yes         Yes           None         None         None           11.3         11.3         31.3           0.09         0.09         0.26           0.29         0.60         0.96           55.4         51.8         81.4           0.0         0.0         0           25         65         208           54         114         #318           1314<td>29       57       259       82         34       113       301       155         Perm       NA       pm+pt       NA         4       3       8         4       4       3       8         4       4       3       8         4       4       3       8         4       4       3       8         4       4       3       8         4       4       3       8         6.0       6.0       5.0       6.0         31.5       31.5       15.0       30.5         31.5       31.5       20.0       51.5         26.3%       26.3%       16.7%       42.9%         3.5       3.5       3.5       3.5         2.0       2.0       2.0       2.0         0.0       0.0       0.0       0.0         5.5       5.5       5.5       5.5         Lag       Lag       Lead       Yes         Yes       Yes       Yes       Yes         None       None       None       None       None         0.29       0.60       0.96</td><td>29         57         259         82         24           29         57         259         82         24           34         113         301         155         28           Perm         NA         pm+pt         NA         pm+pt           4         3         8         1           4         8         6           4         4         3         8         1           6.0         6.0         5.0         6.0         5.0           31.5         31.5         15.0         30.5         15.0           31.5         31.5         20.0         51.5         15.0           26.3%         26.3%         16.7%         42.9%         12.5%           3.5         3.5         3.5         3.5         3.5           2.0         2.0         2.0         2.0         2.0           0.0         0.0         0.0         0.0         0.0           5.5         5.5         5.5         5.5         5.5           Lag         Lag         Lead         Lead         Yes           Yes         Yes         Yes         Yes         Na</td><td>29         57         259         82         24         467           34         113         301         155         28         543           Perm         NA         pm+pt         NA         pm+pt         NA           4         3         8         1         6           4         4         3         8         1         6           4         4         3         8         1         6           4         4         3         8         1         6           6.0         6.0         5.0         6.0         5.0         15.0           31.5         31.5         15.0         30.5         15.0         28.5           31.5         31.5         20.0         51.5         15.0         53.5           2.0         2.0         2.0         2.0         2.0         2.0           0.0         0.0         0.0         0.0         0.0         0.0         0.0           0.5         5.5         5.5         5.5         5.5         5.5         5.5           Lag         Lag         Lead         Lag         Lag         Log         0.6</td><td>29         57         259         82         24         467         136           29         57         259         82         24         467         136           34         113         301         155         28         543         158           Perm         NA         pm+pt         NA         pm+pt         NA         Perm           4         3         8         1         6         6           4         4         3         8         1         6         6           4         4         3         8         1         6         6           6.0         6.0         5.0         6.0         5.0         15.0         15.0         15.0           31.5         31.5         20.0         51.5         15.0         53.5         53.5         26.3%         20.0         2.0</td><td>29         57         259         82         24         467         136         29           34         113         301         155         28         543         158         34           Perm         NA         pm+pt         NA         pm+pt         NA         Perm         pm+pt         NA         pm+pt         pm+pt         NA         Perm         pm+pt         NA         pm+pt         <td< td=""></td<></td></td>	29         57         259           29         57         259           34         113         301           Perm         NA         pm+pt           4         3           4         8           4         4         3           6.0         6.0         5.0           31.5         31.5         15.0           31.5         31.5         20.0           26.3%         26.3%         16.7%           3.5         3.5         3.5           2.0         2.0         2.0           0.0         0.0         0.0           5.5         5.5         5.5           Lag         Lag         Lead           Yes         Yes         Yes           None         None         None           11.3         11.3         31.3           0.09         0.09         0.26           0.29         0.60         0.96           55.4         51.8         81.4           0.0         0.0         0           25         65         208           54         114         #318           1314 <td>29       57       259       82         34       113       301       155         Perm       NA       pm+pt       NA         4       3       8         4       4       3       8         4       4       3       8         4       4       3       8         4       4       3       8         4       4       3       8         4       4       3       8         6.0       6.0       5.0       6.0         31.5       31.5       15.0       30.5         31.5       31.5       20.0       51.5         26.3%       26.3%       16.7%       42.9%         3.5       3.5       3.5       3.5         2.0       2.0       2.0       2.0         0.0       0.0       0.0       0.0         5.5       5.5       5.5       5.5         Lag       Lag       Lead       Yes         Yes       Yes       Yes       Yes         None       None       None       None       None         0.29       0.60       0.96</td> <td>29         57         259         82         24           29         57         259         82         24           34         113         301         155         28           Perm         NA         pm+pt         NA         pm+pt           4         3         8         1           4         8         6           4         4         3         8         1           6.0         6.0         5.0         6.0         5.0           31.5         31.5         15.0         30.5         15.0           31.5         31.5         20.0         51.5         15.0           26.3%         26.3%         16.7%         42.9%         12.5%           3.5         3.5         3.5         3.5         3.5           2.0         2.0         2.0         2.0         2.0           0.0         0.0         0.0         0.0         0.0           5.5         5.5         5.5         5.5         5.5           Lag         Lag         Lead         Lead         Yes           Yes         Yes         Yes         Yes         Na</td> <td>29         57         259         82         24         467           34         113         301         155         28         543           Perm         NA         pm+pt         NA         pm+pt         NA           4         3         8         1         6           4         4         3         8         1         6           4         4         3         8         1         6           4         4         3         8         1         6           6.0         6.0         5.0         6.0         5.0         15.0           31.5         31.5         15.0         30.5         15.0         28.5           31.5         31.5         20.0         51.5         15.0         53.5           2.0         2.0         2.0         2.0         2.0         2.0           0.0         0.0         0.0         0.0         0.0         0.0         0.0           0.5         5.5         5.5         5.5         5.5         5.5         5.5           Lag         Lag         Lead         Lag         Lag         Log         0.6</td> <td>29         57         259         82         24         467         136           29         57         259         82         24         467         136           34         113         301         155         28         543         158           Perm         NA         pm+pt         NA         pm+pt         NA         Perm           4         3         8         1         6         6           4         4         3         8         1         6         6           4         4         3         8         1         6         6           6.0         6.0         5.0         6.0         5.0         15.0         15.0         15.0           31.5         31.5         20.0         51.5         15.0         53.5         53.5         26.3%         20.0         2.0</td> <td>29         57         259         82         24         467         136         29           34         113         301         155         28         543         158         34           Perm         NA         pm+pt         NA         pm+pt         NA         Perm         pm+pt         NA         pm+pt         pm+pt         NA         Perm         pm+pt         NA         pm+pt         <td< td=""></td<></td>	29       57       259       82         34       113       301       155         Perm       NA       pm+pt       NA         4       3       8         4       4       3       8         4       4       3       8         4       4       3       8         4       4       3       8         4       4       3       8         4       4       3       8         6.0       6.0       5.0       6.0         31.5       31.5       15.0       30.5         31.5       31.5       20.0       51.5         26.3%       26.3%       16.7%       42.9%         3.5       3.5       3.5       3.5         2.0       2.0       2.0       2.0         0.0       0.0       0.0       0.0         5.5       5.5       5.5       5.5         Lag       Lag       Lead       Yes         Yes       Yes       Yes       Yes         None       None       None       None       None         0.29       0.60       0.96	29         57         259         82         24           29         57         259         82         24           34         113         301         155         28           Perm         NA         pm+pt         NA         pm+pt           4         3         8         1           4         8         6           4         4         3         8         1           6.0         6.0         5.0         6.0         5.0           31.5         31.5         15.0         30.5         15.0           31.5         31.5         20.0         51.5         15.0           26.3%         26.3%         16.7%         42.9%         12.5%           3.5         3.5         3.5         3.5         3.5           2.0         2.0         2.0         2.0         2.0           0.0         0.0         0.0         0.0         0.0           5.5         5.5         5.5         5.5         5.5           Lag         Lag         Lead         Lead         Yes           Yes         Yes         Yes         Yes         Na	29         57         259         82         24         467           34         113         301         155         28         543           Perm         NA         pm+pt         NA         pm+pt         NA           4         3         8         1         6           4         4         3         8         1         6           4         4         3         8         1         6           4         4         3         8         1         6           6.0         6.0         5.0         6.0         5.0         15.0           31.5         31.5         15.0         30.5         15.0         28.5           31.5         31.5         20.0         51.5         15.0         53.5           2.0         2.0         2.0         2.0         2.0         2.0           0.0         0.0         0.0         0.0         0.0         0.0         0.0           0.5         5.5         5.5         5.5         5.5         5.5         5.5           Lag         Lag         Lead         Lag         Lag         Log         0.6	29         57         259         82         24         467         136           29         57         259         82         24         467         136           34         113         301         155         28         543         158           Perm         NA         pm+pt         NA         pm+pt         NA         Perm           4         3         8         1         6         6           4         4         3         8         1         6         6           4         4         3         8         1         6         6           6.0         6.0         5.0         6.0         5.0         15.0         15.0         15.0           31.5         31.5         20.0         51.5         15.0         53.5         53.5         26.3%         20.0         2.0	29         57         259         82         24         467         136         29           34         113         301         155         28         543         158         34           Perm         NA         pm+pt         NA         pm+pt         NA         Perm         pm+pt         NA         pm+pt         pm+pt         NA         Perm         pm+pt         NA         pm+pt         pm+pt <td< td=""></td<>

A&R Engineering 22-013 Townhomes on Perimeter Rd

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

#### Splits and Phases: 1: SR 53 & Perimeter Rd



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# HCM 6th Signalized Intersection Summary 1: SR 53 & Perimeter Rd

	1	-	7	1	-	*	1	1	1	1	+	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
ane Configurations	1	1.		7	₽.		1	1	1	7	12	
Traffic Volume (veh/h)	29	57	40	259	82	52	24	467	136	29	408	30
Future Volume (veh/h)	29	57	40	259	82	52	24	467	136	29	408	30
nitial 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	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	34	66	47	301	95	60	28	543	158	34	474	35
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	164	86	61	302	269	170	478	1047	924	410	968	71
Arrive On Green	0.08	0.08	0.08	0.12	0.25	0.25	0.03	0.58	0.58	0.03	0.59	0.59
Sat Flow, veh/h	1232	1016	724	1781	1072	677	1781	1796	1585	1781	1652	122
Grp Volume(v), veh/h	34	0	113	301	0	155	28	543	158	34	0	509
Grp Sat Flow(s), veh/h/ln	1232	0	1740	1781	0	1749	1781	1796	1585	1781	0	1774
Q Serve(g_s), s	3.1	0.0	7.6	14.5	0.0	8.7	0.8	21.7	5.5	0.9	0.0	20.0
Cycle Q Clear(g_c), s	3.1	0.0	7.6	14.5	0.0	8.7	0.8	21.7	5.5	0.9	0.0	20.0
Prop In Lane	1.00		0.42	1.00		0.39	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	164	0	148	302	0	440	478	1047	924	410	0	1039
V/C Ratio(X)	0.21	0.00	0.77	1.00	0.00	0.35	0.06	0.52	0.17	0.08	0.00	0.49
Avail Cap(c_a), veh/h	327	0	377	302	0	670	574	1047	924	501	0	1039
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.7	0.0	53.7	46.0	0.0	36.9	11.0	15.0	11.6	11.3	0.0	14.4
Incr Delay (d2), s/veh	0.6	0.0	8.0	50.4	0.0	0.5	0.1	1.8	0.4	0.1	0.0	1.7
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	1.0	0.0	3.6	6.0	0.0	3.7	0.3	8.6	1.9	0.3	0.0	7.8
Unsig. Movement Delay, s/veh		010	0.0									
LnGrp Delay(d),s/veh	52.3	0.0	61.8	96.4	0.0	37.4	11.1	16.8	12.0	11.4	0.0	16.1
LnGrp LOS	D	A	E	F	A	D	В	В	В	В	А	E
Approach Vol, veh/h		147		-	456			729	-		543	
Approach Delay, s/veh		59.6			76.4			15.5			15.8	
Approach LOS		55.0 E			E			B			В	
						0					-	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	75.8	20.0	15.7	8.9	75.4		35.7				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	48.0	14.5	26.0	9.5	48.0		46.0				
Max Q Clear Time (g_c+l1), s	2.8	22.0	16.5	9.6	2.9	23.7		10.7		-		
Green Ext Time (p_c), s	0.0	6.1	0.0	0.5	0.0	7.7		0.8				
Intersection Summary			_	-			_	_				
HCM 6th Ctrl Delay			33.9									
HCM 6th LOS			С									

Intersection	1			They -		
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1		TIDE	é.	Y	TIDIX
Traffic Vol, veh/h	120	4	13	123	2	14
Future Vol, veh/h	120	4	13	123	2	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-		-		-	None
Storage Length		NUTIC -	-	-	0	-
Veh in Median Storage		-	-	0	0	
Grade, %	c, # 0	-	-	0	0	-
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	2	2	2	2	2	2
	164	5	18	168	2	19
Mvmt Flow	104	9	10	100	3	19
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	169	0	371	167
Stage 1	-		-	-	167	-
Stage 2	-	-	-	-	204	
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	÷.	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-		-	5.42	-
Follow-up Hdwy	-		2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1409		630	877
Stage 1	-	-	-	-	863	-
Stage 2	-		-	-	830	1
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1409	-	621	877
Mov Cap-2 Maneuver		-	-	-	621	-
Stage 1	-	-		-	863	-
Stage 2	-	-	-	-	818	-
olugo 1						
4			14/0		NID	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.7		9.4	
HCM LOS					А	

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	834	-	-	1409	-
HCM Lane V/C Ratio	0.026	-	-	0.013	-
HCM Control Delay (s)	9.4		-	7.6	0
HCM Lane LOS	A	-	-	А	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

4.1

### Intersection

Int Delay, s/veh

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
Traffic Vol, veh/h	5	9	6	93	12	11	12	162	91	10	167	4	
Future Vol, veh/h	5	9	6	93	12	11	12	162	91	10	167	4	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None		-	None	-	-	None	-	-	None	
Storage Length	-		-		-	-	-	-	-	-		-	
Veh in Median Storage,	# -	0	-	-	0	-	-	0		-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78	
Heavy Vehicles, %	2	2	2	2	2	2	2	8	2	2	8	2	
Mymt Flow	6	12	8	119	15	14	15	208	117	13	214	5	

Major/Minor	Minor2			Minor1			Major1			Major2	-		
Conflicting Flow All	554	598	217	550	542	267	219	0	0	325	0	0	
Stage 1	243	243	-	297	297	-	-	-	-	-	-	-	
Stage 2	311	355	-	253	245	-	-	· #	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-		4.12	-	-	
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-		-		
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018			-	-	2.218	-	-	
Pot Cap-1 Maneuver	443	416	823	446	447	772	1350	-	-	1235	-	-	
Stage 1	761	705		712	668	-	_		-	-		-	
Stage 2	699	630	-	751	703		-	-	-	-	-	-	
Platoon blocked, %								-	-			4	
Mov Cap-1 Maneuver	415	405	823	424	435	772	1350		-	1235	-	-	
Mov Cap-2 Maneuver	415	405	-	424	435	+	-	-	-	-	-	-	
Stage 1	750	697	-		659		-	-	-	-	-	-	
Stage 2	661	621	÷	723	695	-	-	-	-	-	-	-	
Approach	EB		1	WB			NB			SB			-
HCM Control Delay, s	12.9			17.1	1		0.3			0.4			
HCM LOS	В			С									
Minor Lane/Major Mvn	nt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				 
Capacity (veh/h)		1350		-	481	444	1235	-	+				
HCM Lane V/C Ratio		0.011	-	-	0.053	0.335	0.01	-	+				
HCM Control Delay (s	)	7.7	0	-	12.9	17.1	7.9	0	-				
HCM Lane LOS		А	A	+	В	С	А	А	-				

1.5

0.2

-

0

HCM 95th %tile Q(veh)

0

-

	×	-	1	+	1	1	1	1	ŧ	
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Configurations	5	Þ	7	Þ	٦	1	1	1	12	
Traffic Volume (vph)	24	51	136	43	59	514	195	22	386	
Future Volume (vph)	24	51	136	43	59	514	195	22	386	
Lane Group Flow (vph)	26	95	146	75	63	553	210	24	443	
Turn Type	Perm	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	1 onn	4	3	8	1	6		5	2	
Permitted Phases	4		8		6		6	2		
Detector Phase	4	4	3	8	1	6	6	5	2	
Switch Phase										
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	
Minimum Split (s)	31.5	31.5	15.0	30.5	15.0	28.5	28.5	15.0	28.5	
Total Split (s)	31.5	31.5	15.0	46.5	15.0	58.5	58.5	15.0	58.5	
Total Split (%)	26.3%	26.3%	12.5%	38.8%	12.5%	48.8%	48.8%	12.5%	48.8%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lag	Lag	Lead	0.0	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	
Act Effct Green (s)	10.2	10.2	25.1	25.1	81.6	76.8	76.8	78.3	73.4	
	0.08	0.08	0.21	0.21	0.68	0.64	0.64	0.65	0.61	
Actuated g/C Ratio	0.08	0.08	0.21	0.21	0.00	0.49	0.20	0.05	0.41	
v/c Ratio	54.7	48.3	51.4	25.5	6.8	14.8	4.9	6.7	14.8	
Control Delay	0.0	40.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Queue Delay	54.7	48.3	51.4	25.5	6.8	14.8	4.9	6.7	14.8	
Total Delay	54.7 D	40.3 D	01.4 D	20.0 C	0.0 A	14.0 B	4.5 A	A	В	
LOS	U	49.7	U	42.6	~	11.7	~	~	14.4	
Approach Delay				42.0 D		В			B	
Approach LOS	10	D	98	29	14	231	24	5	175	
Queue Length 50th (ft)	19	50		68	32	368	65	15	282	
Queue Length 95th (ft)	47	103	155		32	704	05	15	962	
Internal Link Dist (ft)	140	1314	040	635	400	704	135	185	902	
Turn Bay Length (ft)	140	100	210	040	180	4407			1080	
Base Capacity (vph)	285	400	242	618	617	1137	1060	561		
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.09	0.24	0.60	0.12	0.10	0.49	0.20	0.04	0.41	
Intersection Summary										
Cycle Length: 120										
Actuated Cycle Length: 120	)									
Offset: 0 (0%), Referenced		SBTL ar	d 6:NBTI	, Start of	Green					
Natural Cycle: 90										
Control Type: Actuated-Cod	ordinated									
Maximum v/c Ratio: 0.61										
Intersection Signal Delay: 1	9.5				ntersectio	n LOS: E	3			
Intersection Capacity Utiliza		6		1	CU Level	of Servic	e B			

Analysis Period (min) 15

A&R Engineering 22-013 Townhomes on Perimeter Rd

#### Splits and Phases: 1: SR 53 & Perimeter Rd

101	Ø2 (R)	<b>√</b> Ø3 →Ø4	
55	58.5 s	15 5 31.5 5	
<b>1</b> 05	<b>0</b> 6 (R)	<b>V</b> Ø8	
5 5	58,5 \$	46,5.5	

# HCM 6th Signalized Intersection Summary 1: SR 53 & Perimeter Rd

	*	-	*	1	+-	*	1	1	1	1	ł	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	1.		1	f.		٦	1	7	7	4	
Traffic Volume (veh/h)	24	51	37	136	43	27	59	514	195	22	386	26
Future Volume (veh/h)	24	51	37	136	43	27	59	514	195	22	386	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	C
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	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	26	55	40	146	46	29	63	553	210	24	415	28
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	158	74	54	227	213	134	602	1151	1016	439	1044	70
Arrive On Green	0.07	0.07	0.07	0.08	0.20	0.20	0.04	0.64	0.64	0.02	0.63	0.63
Sat Flow, veh/h	1325	1007	732	1781	1073	676	1781	1796	1585	1781	1664	112
Grp Volume(v), veh/h	26	0	95	146	0	75	63	553	210	24	0	443
Grp Sat Flow(s), veh/h/ln	1325	0	1739	1781	0	1749	1781	1796	1585	1781	0	1776
Q Serve(g_s), s	2.2	0.0	6.4	8.9	0.0	4.3	1.5	19.2	6.6	0.6	0.0	14.9
Cycle Q Clear(g_c), s	2.2	0.0	6.4	8.9	0.0	4.3	1.5	19.2	6.6	0.6	0.0	14.9
Prop In Lane	1.00		0.42	1.00		0.39	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	158	0	128	227	0	348	602	1151	1016	439	0	1114
V/C Ratio(X)	0.16	0.00	0.74	0.64	0.00	0.22	0.10	0.48	0.21	0.05	0.00	0.40
Avail Cap(c_a), veh/h	347	0	377	227	0	597	677	1151	1016	539	0	1114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.5	0.0	54.5	45.4	0.0	40.2	8.0	11.2	8.9	8.8	0.0	11.1
Incr Delay (d2), s/veh	0.5	0.0	8.1	6.0	0.0	0.3	0.1	1.4	0.5	0.1	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	0.8	0.0	3.1	4.2	0.0	1.8	0.5	7.2	2.2	0.2	0.0	5.6
Unsig. Movement Delay, s/veh	1											
LnGrp Delay(d),s/veh	53.0	0.0	62.6	51.4	0.0	40.6	8.1	12.6	9.4	8.8	0.0	12.2
LnGrp LOS	D	А	E	D	А	D	А	В	A	А	А	E
Approach Vol, veh/h		121			221			826			467	
Approach Delay, s/veh		60.5			47.7			11.5			12.0	
Approach LOS		E			D			В			В	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	80.8	15.0	14.3	8.3	82.4		29.3				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	53.0	9.5	26.0	9.5	53.0		41.0				
Max Q Clear Time (g_c+l1), s	3.5	16.9	10.9	8.4	2.6	21.2		6.3				
Green Ext Time (p_c), s	0.0	5.7	0.0	0.4	0.0	9.3		0.3				
Intersection Summary										_		
HCM 6th Ctrl Delay			20.1				-					
HCM 6th LOS			С									

Interse	ction
Int Dela	ay, s/veh

Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1+			4	Y	_
Traffic Vol, veh/h	135	4	11	107	4	8
Future Vol, veh/h	135	4	11	107	4	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	,# 0	-		0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	150	4	12	119	4	9

Major/Minor I	Major1	1	Major2		Minor1	
Conflicting Flow All	0	0	154	0	295	152
Stage 1	-	-	-	-	152	-
Stage 2	-		-	-	143	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	. L	-		5.42	4
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	
Pot Cap-1 Maneuver	-	-	1426	-	696	894
Stage 1	-	÷.	-		876	
Stage 2	1.4	-	-	-	884	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1426	-	690	894
Mov Cap-2 Maneuver	+	-	-	-	690	-
Stage 1		-	-	-	876	-
Stage 2	-		-	-	876	-
					in.	
Approach	EB		WB	-	NB	
HCM Control Delay, s	0	6	0.7		9.5	
HCM LOS					А	
Minor Lane/Major Mvn	nt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	19-1	814		-	1426	
HCM Lane V/C Ratio		0.016	-	-	0.009	-
HCM Control Delay (s)	)	9.5		-	7.5	0
HCM Lane LOS		А	-	-	А	А
HCM 95th %tile Q(veh	)	0.1	-	-	0	1.1

3

### Intersection

Int Delay, s/veh

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4	-	_	4			4		
Traffic Vol, veh/h	4	9	6	66	21	12	15	308	104	15	190	8	
Future Vol, veh/h	4	9	6	66	21	12	15	308	104	15	190	8	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-		None	-	-	None		-	None	-	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-		-	
Veh in Median Storage,	# -	0	-	-	0	-		0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	
Heavy Vehicles, %	2	2	2	2	2	2	2	8	2	2	8	2	
Mymt Flow	4	10	6	70	22	13	16	328	111	16	202	9	

Major/Minor	Minor2			Minor1			Major1		1	Major2				
Conflicting Flow All	672	710	207	663	659	384	211	0	0	439	0	0		
Stage 1	239	239	-	416	416	-	-	-	-	-	-			
Stage 2	433	471	-	247	243	-	-	-	÷	-	*	÷		
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-		4.12	-	-		
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	+	-				
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-		-	-			
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318		-		2.218		-		
Pot Cap-1 Maneuver	370	359	833	375	384	664	1360	-	-	1121	-	-		
Stage 1	764	708	-	614	592	-	-	-	-	-	-			
Stage 2	601	560	-	757	705	-	-	-	14	-		-		
Platoon blocked, %							_		-		•			
Mov Cap-1 Maneuver	338	348	833	356	372	664	1360	-	-	1121	-	-		
Mov Cap-2 Maneuver	338	348	-	356	372	-	-	-	-	-	-			
Stage 1	752	697	-	604	583	-	-	-	-	-	•	1.1		
Stage 2	558	551	-	729	694	-	-	-	-		-	-		
Approach	EB		-	WB			NB			SB				
HCM Control Delay, s	13.9			18			0.3			0.6	-	-		
HCM LOS	В			С										
Minor Lane/Major Mvn	nt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				_	
Capacity (veh/h)		1360		+	423	381	1121	-	-					
HCM Lane V/C Ratio		0.012	-	-	0.048	0.276	0.014	-						
					10.0	10		•						

8.3

А

0

18

С

1.1

0

А

-

-

-

-

-

-

-

13.9

В

0.1

0

А

-

7.7

A

0

HCM Control Delay (s)

HCM 95th %tile Q(veh)

HCM Lane LOS

FUTURE "BUILD" INTERSECTION ANALYSIS

EBL         EBT         WBL         WBT         NBL         NBT         NBR         SBL         SBT           ph)         50         140         278         83         32         330         257         57         466           ph)         50         140         278         83         32         330         257         57         466           ph)         50         140         278         83         32         330         257         57         466           ph)         64         276         356         177         41         423         329         73         628           Perm         NA         pm+pt         NA         pm+pt         NA         Perm         pm+pt         NA           ss         4         3         8         1         6         5         2           ss         4         3         8         1         6         6         2         2           ss         6.0         6.0         5.0         6.0         5.0         15.0         51.0         28.5           ss         31.5         31.5         22.0         53.5         15.0 <td< th=""></td<>
ons         1
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
s       4       8       6       6       2         4       4       3       8       1       6       6       2         5)       6.0       6.0       5.0       6.0       5.0       15.0       15.0       5.0       15.0         31.5       31.5       15.0       30.5       15.0       28.5       28.5       15.0       28.5         31.5       31.5       22.0       53.5       15.0       51.5       51.5       15.0       28.5         26.3%       26.3%       18.3%       44.6%       12.5%       42.9%       42.9%       12.5%       42.9%         3.5
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
31.5         31.5         15.0         30.5         15.0         28.5         28.5         15.0         28.5           31.5         31.5         22.0         53.5         15.0         51.5         51.5         15.0         51.5           26.3%         26.3%         18.3%         44.6%         12.5%         42.9%         42.9%         12.5%         42.9%           3.5         5.5 <t< td=""></t<>
31.5         31.5         15.0         30.5         15.0         28.5         28.5         15.0         28.5           31.5         31.5         22.0         53.5         15.0         51.5         51.5         15.0         51.5           26.3%         26.3%         18.3%         44.6%         12.5%         42.9%         42.9%         12.5%         42.9%           3.5         5.5 <t< td=""></t<>
31.5       31.5       22.0       53.5       15.0       51.5       51.5       15.0       51.5         26.3%       26.3%       18.3%       44.6%       12.5%       42.9%       42.9%       12.5%       42.9%         3.5       3.5       3.5       3.5       3.5       3.5       3.5       3.5       3.5       3.5         2.0       2.0       2.0       2.0       2.0       2.0       2.0       2.0       2.0         (s)       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0         s)       5.5       5.5       5.5       5.5       5.5       5.5       5.5       5.5       5.5         Lag       Lag       Lead       Lag       Lag       Lag       Lag       Lag
26.3%         26.3%         18.3%         44.6%         12.5%         42.9%         42.9%         12.5%         42.9%           3.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5
3.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5         5.5
2.0         2.0
(s)         0.0
s) 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.
Lag Lag Lead Lead Lag Lag Lead Lag
None None None None None C-Min C-Min None C-Min
s) 21.8 21.8 43.8 43.8 60.0 54.2 54.2 61.7 55.0
tio 0.18 0.18 0.36 0.36 0.50 0.45 0.45 0.51 0.46
0.29 0.82 1.08 0.27 0.16 0.53 0.39 0.17 0.77
44.6 62.8 102.9 21.9 15.8 28.9 8.5 15.4 37.3
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
44.6 62.8 102.9 21.9 15.8 28.9 8.5 15.4 37.3
DEFCBCABD
59.4 76.0 19.8 35.0
acity Utilization 75.9% ICU Level of Service D
E         E         B           Dth (ft)         43         191         ~230         76         15         243         40         26           5th (ft)         71         233         #301         104         30         305         75         46           (ft)         1314         635         704

A&R Engineering

22-013 Townhomes on Perimeter Rd

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

# Splits and Phases: 1: SR 53 & Perimeter Rd

101	Ø2 (R)	<b>√</b> Ø3	404	
158	51.5 s	22,6	31.5 s	
<b>1</b> 05	🖡 🕇 ø6 (R)	₹_Ø8		
15 5	51.5 \$	53.5 s		

# HCM 6th Signalized Intersection Summary 1: SR 53 & Perimeter Rd

Traffic Volume (veh/h)       50       140       76       278       83       55       32       330       257         Future Volume (veh/h)       50       140       76       278       83       55       32       330       257         Initial Q (Qb), veh       0 <th>1 4</th> <th>1</th> <th>* * +</th> <th>1</th>	1 4	1	* * +	1
Traffic Volume (veh/h)       50       140       76       278       83       55       32       330       257         Future Volume (veh/h)       50       140       76       278       83       55       32       330       257         Initial Q (Qb), veh       0 <th>the second se</th> <th>NBF</th> <th>Statement of the second s</th> <th>SBR</th>	the second se	NBF	Statement of the second s	SBR
Future Volume (veh/h)         50         140         76         278         83         55         32         330         257           Initial Q (Qb), veh         0	7 7	1		
Initial Q (Qb), veh       0	257 57	25		24
Ped-Bike Adj(A_pbT)       1.00 <th< td=""><td>257 57</td><td>25</td><td>257 57 466</td><td>24</td></th<>	257 57	25	257 57 466	24
Parking Bus, Adj       1.00       1.01       1.00       1.00       1.01       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.	0 0			0
Work Zone On Approach         No         No         No         No           Adj Sat Flow, veh/h/ln         1870         <	1.00 1.00			1.00
Adj Sat Flow, veh/h18701870187018701870187018701870187017961870Adj Flow Rate, veh/h64179973561067141423325Peak Hour Factor0.78<	1.00 1.00	1.0		1.00
Adj Flow Rate, veh/h       64       179       97       356       106       71       41       423       329         Peak Hour Factor       0.78       0			No	
Peak Hour Factor         0.78         0.44           Sat Flow, veh/h         1207         1141         618         177         41         423         322         0.85         1.00         8.7         1.4         19.8         16.5           Q Serve(g_c), veh/h         274         0         311         331         0         628         261 <td></td> <td></td> <td></td> <td>1870</td>				1870
Percent Heavy Veh, %       2       2       2       2       2       2       2       2       7       2         Cap, veh/h       274       202       109       331       376       252       261       834       736         Arrive On Green       0.18       0.18       0.18       0.19       0.36       0.36       0.03       0.46       0.46         Sat Flow, veh/h       1207       1141       618       1781       1045       700       1781       1796       1586         Grp Volume(v), veh/h       64       0       276       356       0       177       41       423       326         Grp Sat Flow(s), veh/h/ln       1207       0       1759       1781       0       1744       1781       1796       1586         Q Serve(g_s), s       5.5       0.0       18.4       16.5       0.0       8.7       1.4       19.8       16.5         Q/cycle Q Clear(g_c), veh/h       274       0       311       331       0       628       261       834       736         V/C Ratio(X)       0.23       0.00       0.89       1.08       0.00       0.00       1.00       1.00         V	329 73			31
Cap, veh/h274202109331376252261834736Arrive On Green0.180.180.180.190.360.360.030.460.46Sat Flow, veh/h1207114161817811045700178117961586Grp Volume(v), veh/h640276356017741423325Grp Sat Flow(s), veh/h/in120701759178101744178117961586Q Serve(g_s), s5.50.018.416.50.08.71.419.816.6Cycle Q Clear(g_c), s5.50.018.416.50.08.71.419.816.6Cycle Q Clear(g_c), veh/h27403113310628261834736Cycle Q Cap(c), veh/h27403113310628261834736V/C Ratio(X)0.230.000.891.080.000.280.160.510.44Avail Cap(c_a), veh/h32203813310698347834736HCM Platoon Ratio1.001.001.001.001.001.001.001.001.001.00Upstream Filter(I)1.000.00.00.00.00.00.00.00.00.0Uniform Delay (d), s/veh0.40.067.1105.80.027.6 <td>0.78 0.78</td> <td>0.7</td> <td></td> <td>0.78</td>	0.78 0.78	0.7		0.78
Cap, veh/h         274         202         109         331         376         252         261         834         736           Arrive On Green         0.18         0.18         0.18         0.19         0.36         0.36         0.03         0.46         0.46           Sat Flow, veh/h         1207         1141         618         1781         1045         700         1781         1796         1586           Grp Volume(v), veh/h         64         0         276         356         0         177         41         423         326           Grp Sat Flow(s), veh/h         1207         0         1759         1781         0         1744         1781         1796         1586           Q Serve(g_s), s         5.5         0.0         18.4         16.5         0.0         8.7         1.4         19.8         16.8           Cycle Q Clear(g_c), s         5.5         0.0         18.4         16.5         0.0         8.7         1.4         19.8         16.8           Cycle Q Clear(g_c), veh/h         274         0         311         331         0         628         261         834         736           V/C Ratio(X)         0.23         0.0	2 2			2
Sat Flow, veh/h         1207         1141         618         1781         1045         700         1781         1796         1586           Grp Volume(v), veh/h         64         0         276         356         0         177         41         423         325           Grp Sat Flow(s), veh/h/in         1207         0         1759         1781         0         1744         1781         1796         1586           Q Serve(g_s), s         5.5         0.0         18.4         16.5         0.0         8.7         1.4         19.8         16.8           Cycle Q Clear(g_c), s         5.5         0.0         18.4         16.5         0.0         8.7         1.4         19.8         16.8           Prop In Lane         1.00         0.35         1.00         0.40         1.00 <td>736 340</td> <td>73</td> <td>736 340 798</td> <td>41</td>	736 340	73	736 340 798	41
Grp Volume(v), veh/h       64       0       276       356       0       177       41       423       325         Grp Sat Flow(s), veh/h/ln       1207       0       1759       1781       0       1744       1781       1796       1585         Q Serve(g_s), s       5.5       0.0       18.4       16.5       0.0       8.7       1.4       19.8       16.5         Cycle Q Clear(g_c), s       5.5       0.0       18.4       16.5       0.0       8.7       1.4       19.8       16.5         Prop In Lane       1.00       0.35       1.00       0.40       1.00       1.00         Lane Grp Cap(c), veh/h       274       0       311       331       0       628       261       834       736         V/C Ratio(X)       0.23       0.00       0.89       1.08       0.00       0.28       0.16       0.51       0.44         Avail Cap(c_a), veh/h       322       0       381       331       0       698       347       834       736         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	0.46 0.04	0.4		0.47
Gr       Sat Flow(s), veh/h/ln       1207       0       1759       1781       0       1744       1781       1796       1585         Q Serve(g_s), s       5.5       0.0       18.4       16.5       0.0       8.7       1.4       19.8       16.5         Cycle Q Clear(g_c), s       5.5       0.0       18.4       16.5       0.0       8.7       1.4       19.8       16.5         Prop In Lane       1.00       0.35       1.00       0.40       1.00       1.00       1.00         Lane Grp Cap(c), veh/h       274       0       311       331       0       628       261       834       736         V/C Ratio(X)       0.23       0.00       0.89       1.08       0.00       0.28       0.16       0.51       0.44         Avail Cap(c_a), veh/h       322       0       381       331       0       698       347       834       736         HCM Platoon Ratio       1.00       <	1585 1781	158	585 1781 1693	88
Grp Sat Flow(s),veh/h/ln       1207       0       1759       1781       0       1744       1781       1796       1585         Q Serve(g_s), s       5.5       0.0       18.4       16.5       0.0       8.7       1.4       19.8       16.5         Cycle Q Clear(g_c), s       5.5       0.0       18.4       16.5       0.0       8.7       1.4       19.8       16.5         Prop In Lane       1.00       0.35       1.00       0.40       1.00       1.00       1.00         Lane Grp Cap(c), veh/h       274       0       311       331       0       628       261       834       736         V/C Ratio(X)       0.23       0.00       0.89       1.08       0.00       0.28       0.16       0.51       0.44         Avail Cap(c_a), veh/h       322       0       381       331       0       698       347       834       736         HCM Platoon Ratio       1.00	329 73	32	329 73 0	628
Q Serve(g_s), s       5.5       0.0       18.4       16.5       0.0       8.7       1.4       19.8       16.8         Cycle Q Clear(g_c), s       5.5       0.0       18.4       16.5       0.0       8.7       1.4       19.8       16.8         Cycle Q Clear(g_c), s       5.5       0.0       18.4       16.5       0.0       8.7       1.4       19.8       16.8         Prop In Lane       1.00       0.35       1.00       0.40       1.00       1.00       1.00         Lane Grp Cap(c), veh/h       274       0       311       331       0       628       261       834       736         V/C Ratio(X)       0.23       0.00       0.89       1.08       0.00       0.28       0.16       0.51       0.44         Avail Cap(c_a), veh/h       322       0       381       331       0       698       347       834       736         HCM Platoon Ratio       1.00	1585 1781	158	585 1781 0	1780
Cycle Q Clear(g_c), s       5.5       0.0       18.4       16.5       0.0       8.7       1.4       19.8       16.6         Prop In Lane       1.00       0.35       1.00       0.40       1.00       1.00         Lane Grp Cap(c), veh/h       274       0       311       331       0       628       261       834       736         V/C Ratio(X)       0.23       0.00       0.89       1.08       0.00       0.28       0.16       0.51       0.44         Avail Cap(c_a), veh/h       322       0       381       331       0       698       347       834       736         HCM Platoon Ratio       1.00	16.8 2.6	16.	16.8 2.6 0.0	34.6
Prop In Lane       1.00       0.35       1.00       0.40       1.00       1.00         Lane Grp Cap(c), veh/h       274       0       311       331       0       628       261       834       736         V/C Ratio(X)       0.23       0.00       0.89       1.08       0.00       0.28       0.16       0.51       0.44         Avail Cap(c_a), veh/h       322       0       381       331       0       698       347       834       736         HCM Platoon Ratio       1.00       1	16.8 2.6	16.	16.8 2.6 0.0	34.
Lane Grp Cap(c), veh/h         274         0         311         331         0         628         261         834         736           V/C Ratio(X)         0.23         0.00         0.89         1.08         0.00         0.28         0.16         0.51         0.44           Avail Cap(c_a), veh/h         322         0         381         331         0         698         347         834         736           HCM Platoon Ratio         1.00	1.00 1.00	1.0	1.00 1.00	0.0
V/C Ratio(X)       0.23       0.00       0.89       1.08       0.00       0.28       0.16       0.51       0.44         Avail Cap(c_a), veh/h       322       0       381       331       0       698       347       834       736         HCM Platoon Ratio       1.00	736 340	73	736 340 0	839
Avail Cap(c_a), veh/h       322       0       381       331       0       698       347       834       736         HCM Platoon Ratio       1.00 <td< td=""><td>0.45 0.21</td><td>0.4</td><td>0.45 0.21 0.00</td><td>0.75</td></td<>	0.45 0.21	0.4	0.45 0.21 0.00	0.75
HCM Platoon Ratio1.001.001.001.401.001.001.001.001.00Upstream Filter(I)1.000.001.001.001.001.001.001.001.001.00Uniform Delay (d), s/veh42.90.048.234.80.027.320.622.521.7Incr Delay (d2), s/veh0.40.018.971.00.00.20.32.22.0Initial Q Delay(d3), s/veh0.00.00.00.00.00.00.00.0%ile BackOfQ(50%), veh/ln1.70.09.513.60.03.50.68.46.3Unsig. Movement Delay, s/veh1.070.067.1105.80.027.620.924.723.7LnGrp LOSDAEFACCCCApproach Vol, veh/h34053379334Approach LOSEECCCTimer - Assigned Phs1234568Phs Duration (G+Y+Rc), s9.262.122.026.710.161.248.7Change Period (Y+Rc), s5.55.55.55.55.55.55.5Max Green Setting (Gmax), s9.546.016.526.09.546.048.0	736 414	73	736 414 0	839
Uniform Delay (d), s/veh         42.9         0.0         48.2         34.8         0.0         27.3         20.6         22.5         21.3           Incr Delay (d2), s/veh         0.4         0.0         18.9         71.0         0.0         0.2         0.3         2.2         2.0           Initial Q Delay(d3), s/veh         0.0         0.	1.00 1.00	1.0	1.00 1.00 1.00	1.00
Uniform Delay (d), s/veh42.90.048.234.80.027.320.622.521.3Incr Delay (d2), s/veh0.40.018.971.00.00.20.32.22.0Initial Q Delay(d3), s/veh0.00.00.00.00.00.00.00.00.0%ile BackOfQ(50%), veh/ln1.70.09.513.60.03.50.68.46.3Unsig. Movement Delay, s/veh0.067.1105.80.027.620.924.723.3LnGrp Delay(d), s/veh43.40.067.1105.80.027.620.924.723.3LnGrp LOSDAEFACCCCApproach Vol, veh/h34053379334.824.134.1<	1.00 1.00	1.0	1.00 1.00 0.00	1.00
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	21.7 17.3	21.	21.7 17.3 0.0	25.9
Initial Q Delay(d3),s/veh       0.0 <t< td=""><td>2.0 0.3</td><td>2.</td><td>2.0 0.3 0.0</td><td>6.</td></t<>	2.0 0.3	2.	2.0 0.3 0.0	6.
%ile BackOfQ(50%),veh/ln       1.7       0.0       9.5       13.6       0.0       3.5       0.6       8.4       6.5         Unsig. Movement Delay, s/veh       LnGrp Delay(d),s/veh       43.4       0.0       67.1       105.8       0.0       27.6       20.9       24.7       23.5         LnGrp LOS       D       A       E       F       A       C       C       C       C         Approach Vol, veh/h       340       533       793       7	0.0 0.0	0.	0.0 0.0 0.0	0.0
Unsig. Movement Delay, s/veh         LnGrp Delay(d),s/veh       43.4       0.0       67.1       105.8       0.0       27.6       20.9       24.7       23.7         LnGrp LOS       D       A       E       F       A       C       C       C       C         Approach Vol, veh/h       340       533       793       793         Approach Delay, s/veh       62.6       79.8       24.1       24.1         Approach LOS       E       E       C       C       C         Timer - Assigned Phs       1       2       3       4       5       6       8         Phs Duration (G+Y+Rc), s       9.2       62.1       22.0       26.7       10.1       61.2       48.7         Change Period (Y+Rc), s       5.5       5.5       5.5       5.5       5.5       5.5         Max Green Setting (Gmax), s       9.5       46.0       16.5       26.0       9.5       46.0       48.0	6.3 1.0	6.	6.3 1.0 0.0	15.
LnGrp Delay(d),s/veh       43.4       0.0       67.1       105.8       0.0       27.6       20.9       24.7       23.3         LnGrp LOS       D       A       E       F       A       C <td></td> <td></td> <td></td> <td></td>				
LnGrp LOS         D         A         E         F         A         C	23.7 17.6	23.	23.7 17.6 0.0	32.0
Approach Delay, s/veh         62.6         79.8         24.1           Approach LOS         E         E         C           Timer - Assigned Phs         1         2         3         4         5         6         8           Phs Duration (G+Y+Rc), s         9.2         62.1         22.0         26.7         10.1         61.2         48.7           Change Period (Y+Rc), s         5.5         5.5         5.5         5.5         5.5         5.5           Max Green Setting (Gmax), s         9.5         46.0         16.5         26.0         9.5         46.0         48.0	C B	4	С В А	(
Approach Delay, s/veh         62.6         79.8         24.1           Approach LOS         E         E         C           Timer - Assigned Phs         1         2         3         4         5         6         8           Phs Duration (G+Y+Rc), s         9.2         62.1         22.0         26.7         10.1         61.2         48.7           Change Period (Y+Rc), s         5.5         5.5         5.5         5.5         5.5         5.5           Max Green Setting (Gmax), s         9.5         46.0         16.5         26.0         9.5         46.0         48.0			701	
Approach LOS         E         E         C           Timer - Assigned Phs         1         2         3         4         5         6         8           Phs Duration (G+Y+Rc), s         9.2         62.1         22.0         26.7         10.1         61.2         48.7           Change Period (Y+Rc), s         5.5         5.5         5.5         5.5         5.5         5.5           Max Green Setting (Gmax), s         9.5         46.0         16.5         26.0         9.5         46.0         48.0			30.5	
Phs Duration (G+Y+Rc), s         9.2         62.1         22.0         26.7         10.1         61.2         48.7           Change Period (Y+Rc), s         5.5<			С	
Change Period (Y+Rc), s         5.5				
Change Period (Y+Rc), s         5.5         5.5         5.5         5.5         5.5         5.5           Max Green Setting (Gmax), s         9.5         46.0         16.5         26.0         9.5         46.0         48.0				
Max Q Clear Time (g_c+l1), s 3.4 36.6 18.5 20.4 4.6 21.8 10.7				
Green Ext Time (p_c), s 0.0 4.4 0.0 0.8 0.0 7.6 1.0				
Intersection Summary				
HCM 6th Ctrl Delay 44.1				
HCM 6th LOS D				

Inte	reo	otic	m
IIIIC	190	CIIC	/11

Int Delay, s/veh 2.3 SBT SBR Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL **4** 206 4 110 17 **↔** 0 **4**> 1 Lane Configurations 20 6 24 26 9 2 Traffic Vol, veh/h 11 20 26 1 Future Vol, veh/h 9 206 2 11 110 17 6 0 24 0 0 0 0 0 0 0 0 0 0 Conflicting Peds, #/hr 0 0 Stop Stop Stop Stop Stop Sign Control Free Free Free Free Free Free Stop None None None **RT** Channelized None --------Storage Length 150 ----------0 0 Veh in Median Storage, # 0 0 -----. --0 0 0 0 Grade, % --------79 79 79 79 79 79 79 79 79 79 79 79 Peak Hour Factor 2 2 2 2 2 2 2 2 2 2 Heavy Vehicles, % 2 2 8 0 1 25 3 139 22 30 33 Mvmt Flow 11 261 14

Major/Minor	Major1			Major2		1	Minor1		1	Minor2		-	 and the
Conflicting Flow All	161	0	0	264	0	0	476	474	263	467	453	139	
Stage 1	-			-	-	-	285	285		167	167	-	
Stage 2	-	-	-	-	-		191	189	-	300	286		
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22	
Critical Hdwy Stg 1	-	+	-	-	-	1.5	6.12	5.52	-	6.12	5.52	-	
Critical Hdwy Stg 2	-	-	-	-	-		6.12	5.52		6.12	5.52	- 1	
Follow-up Hdwy	2.218	÷	-	2.218		-	3.518	4.018	3.318	3.518		3.318	
Pot Cap-1 Maneuver	1418	-	-	1300	-	-	499	489	776	506	503	909	
Stage 1	-			+	-	-	722	676	-	835	760	-	
Stage 2	-	-	-	-	-	-	811	744	-	709	675	-	
Platoon blocked, %		-											
Mov Cap-1 Maneuver	1418	-	-	1300	-	-	477	479	776	479	492	909	
Mov Cap-2 Maneuver	-	-	-	-	-	-	477	479	-	479	492	÷	
Stage 1	-	-	-	-	-	-	716	670	-	827	751	-	
Stage 2	-	-	-	-	-	-	778	735		675	669	-	
Approach	EB			WB	1		NB			SB			
HCM Control Delay, s	0.3			0.6		1	10.5			11.7			
HCM LOS							В			В			
Minor Lane/Major Mvm	nt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)		690	1418	-	-	1300		-	600				
HCM Lane V/C Ratio		0.055		-	-	0.011	-	-	0.099				
HCM Control Delay (s)	1	10.5	7.6	0		7.8	0	-	11.7				
HCM Lane LOS		В	А	А	-	А	А	-	В				
HCM 95th %tile Q(veh	)	0.2	0	-	-	0	-	-	0.3				

Intersection										-	-		
Int Delay, s/veh	9.2												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4	_		4			4			4		
Traffic Vol, veh/h	6	23	25	116	6	15	2	163	165	14	459	2	
Future Vol, veh/h	6	23	25	116	6	15	2	163	165	14	459	2	
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										
Storage Length	-	-	-	-		+	-	-	-	-	-	-	
Veh in Median Storage	,# -	0	-	-	0	-		0	-	•	0	-	
Grade, %	-	0	-	-	0			0	÷		0	-	
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81	
Heavy Vehicles, %	2	2	2	2	2	2	2	8	2	2	8	2	-
Mvmt Flow	7	28	31	143	7	19	2	201	204	17	567	2	

Major/Minor	Minor2	-		Minor1			Major1	Contraction of the second	N	Major2			 
Conflicting Flow All	922	1011	568	939	910	303	569	0	0	405	0	0	
Stage 1	602	602	•	307	307	-	-	-	-	-		-	
Stage 2	320	409		632	603	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-		4.12		-	
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.12	5.52	1-	6.12	5.52	-	-	-	-	-	-		
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318		-		2.218	-	-	
Pot Cap-1 Maneuver	251	240	522	244	275	737	1003	-	-	1154		÷	
Stage 1	486	489	-	703	661	-		-	-	-	-	-	
Stage 2	692	596		468	488	-	-	-	-	-	1371		
Platoon blocked, %								-	-		-	-	
Mov Cap-1 Maneuver	235	234	522	204	268	737	1003	-	-	1154	-	-	
Mov Cap-2 Maneuver	235	234	-	204	268	-	-	÷	-	-		-	
Stage 1	485	478	-	701	659		-	-	-		•	-	
Stage 2	665	594	-	405	477	-	-		-	-	- *	-	
										-			
Approach	EB			WB			NB		-	SB		-	 
HCM Control Delay, s	19.5			58.1			0.1			0.2			
HCM LOS	С			F									

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1V	VBLn1	SBL	SBT	SBR	
Capacity (veh/h)	1003	-	-	314	224	1154	-	-	
HCM Lane V/C Ratio	0.002	-	-	0.212	0.755	0.015	-	- R.	
HCM Control Delay (s)	8.6	0	-	19.5	58.1	8.2	0	-	
HCM Lane LOS	A	А	-	С	F	А	А	1	
HCM 95th %tile Q(veh)	0	-	-	0.8	5.2	0	-	-	

A&R Engineering 22-013 Townhomes on Perimeter Rd

Intersection			-			
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		1	1	7
Traffic Vol, veh/h	0	19	0	436	527	3
Future Vol, veh/h	0	19	0	436	527	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Free
Storage Length	-	0	-	-	-	175
Veh in Median Storage,	# 0	-	-	0	0	
Grade, %	0	-	(+	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	21	0	474	573	3

Major/Minor	Minor2	N	lajor1	M	ajor2	-
Conflicting Flow All	-	573	-	0	-	0
Stage 1	6	-	1.	-		199
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver		519	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %					-	
Mov Cap-1 Maneuve		519	-	-	-	4
Mov Cap-2 Maneuve	r -	-	-	-	÷	-
Stage 1	-	-	1.4		-	-
Stage 2	-	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay,	s 12.2	D.C.	0	1	0	
HCM LOS	В					
Minor Lane/Major Mv	/mt	NBT E	BLn1	SBT		
Capacity (veh/h)	1. 1.	14	519	-		
HCM Lane V/C Ratio	)	20	0.04			
HCM Control Delay (		-	12.2	-		
HCM Lane LOS		-	В	-		
HCM 95th %tile Q(ve	eh)	-	0.1	-		

	٠	-	1	+	1	Ť	1	4	ŧ
ane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
ane Configurations	1	1.	7	Þ	1	1	1	1	1.
raffic Volume (vph)	33	58	259	87	53	467	136	30	417
uture Volume (vph)	33	58	259	87	53	467	136	30	417
ane Group Flow (vph)	38	124	301	161	62	543	158	35	520
urn Type	Perm	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
rotected Phases	1 01111	4	3	8	1	6		5	2
ermitted Phases	4		8		6		6	2	
etector Phase	4	4	3	8	1	6	6	5	2
witch Phase									
/inimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Vinimum Split (s)	31.5	31.5	15.0	30.5	15.0	28.5	28.5	15.0	28.5
Total Split (s)	31.5	31.5	20.0	51.5	15.0	53.5	53.5	15.0	53.5
Total Split (%)	26.3%	26.3%	16.7%	42.9%	12.5%	44.6%	44.6%	12.5%	44.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
_ead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min
Act Effct Green (s)	11.8	11.8	31.8	31.8	74.7	69.8	69.8	71.9	66.6
Actuated g/C Ratio	0.10	0.10	0.26	0.26	0.62	0.58	0.58	0.60	0.56
//c Ratio	0.32	0.62	0.97	0.33	0.13	0.53	0.16	0.08	0.53
Control Delay	55.7	50.8	84.0	30.0	9.6	19.6	4.9	9.5	21.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	50.8	84.0	30.0	9.6	19.6	4.9	9.5	21.0
OS	E	D	F	С	А	В	А	А	С
Approach Delay		52.0		65.2		15.7			20.3
Approach LOS		D		E		В			С
Queue Length 50th (ft)	28	68	207	82	16	264	12	9	253
Queue Length 95th (ft)	58	120	#320	127	36	392	45	23	377
Internal Link Dist (ft)	-	1314		635		704			699
Turn Bay Length (ft)	140		210		180		135	185	-
Base Capacity (vph)	264	401	311	691	489	1032	972	497	980
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.31	0.97	0.23	0.13	0.53	0.16	0.07	0.53
tersection Summary									
ycle Length: 120									
ctuated Cycle Length: 120									
ffset: 0 (0%), Referenced t		:SBTL an	d 6:NBTI	, Start of	Green				
latural Cycle: 90									
Control Type: Actuated-Coo	rdinated								
laximum v/c Ratio: 0.97									
ntersection Signal Delay: 3	1.8				ntersectio	n LOS: C	;		
tersection Capacity Utiliza	tion 67.5%	0			CU Level	of Servic	eC		

A&R Engineering 22-013 Townhomes on Perimeter Rd

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

#### Splits and Phases: 1: SR 53 & Perimeter Rd



# HCM 6th Signalized Intersection Summary 1: SR 53 & Perimeter Rd

	1	-	7	1	+	*	1	1	1	5	ŧ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	ň	1.		٦	fr		٦	1	7	٦	4	
Traffic Volume (veh/h)	33	58	49	259	87	52	53	467	136	30	417	30
Future Volume (veh/h)	33	58	49	259	87	52	53	467	136	30	417	30
Initial Q (Qb), veh	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	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	38	67	57	301	101	60	62	543	158	35	485	35
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	173	86	73	303	284	169	467	1033	912	403	939	68
Arrive On Green	0.09	0.09	0.09	0.12	0.26	0.26	0.04	0.58	0.58	0.03	0.57	0.57
Sat Flow, veh/h	1225	933	794	1781	1100	653	1781	1796	1585	1781	1655	119
Grp Volume(v), veh/h	38	0	124	301	0	161	62	543	158	35	0	520
Grp Sat Flow(s), veh/h/ln	1225	0	1727	1781	0	1753	1781	1796	1585	1781	0	1775
Q Serve(g_s), s	3.5	0.0	8.4	14.5	0.0	9.0	1.7	22.1	5.6	1.0	0.0	21.5
Cycle Q Clear(g_c), s	3.5	0.0	8.4	14.5	0.0	9.0	1.7	22.1	5.6	1.0	0.0	21.5
Prop In Lane	1.00	0.0	0.46	1.00	0.0	0.37	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	173	0	159	303	0	453	467	1033	912	403	0	1007
V/C Ratio(X)	0.22	0.00	0.78	0.99	0.00	0.36	0.13	0.53	0.17	0.09	0.00	0.52
Avail Cap(c_a), veh/h	325	0.00	374	303	0.00	672	543	1033	912	493	0	1007
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.1	0.0	53.3	45.4	0.0	36.3	11.8	15.5	12.0	11.9	0.0	15.9
Incr Delay (d2), s/veh	0.6	0.0	8.1	50.1	0.0	0.5	0.1	1.9	0.4	0.1	0.0	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	1.1	0.0	4.0	6.0	0.0	3.8	0.6	8.8	2.0	0.4	0.0	8.5
Unsig. Movement Delay, s/veh		0.0	4.0	0.0	0.0	0.0	0.0	0.0	2.0	0.1	0.0	UN
	51.7	0.0	61.4	95.4	0.0	36.8	12.0	17.4	12.4	12.0	0.0	17.8
LnGrp Delay(d),s/veh	51.7 D	0.0 A	01.4 E	55.4 F	A	00.0 D	12.0 B	B	B	B	A	E
LnGrp LOS	D	162	L		462		U	763	D		555	-
Approach Vol, veh/h					75.0			16.0			17.4	
Approach Delay, s/veh		59.1			75.0 E			10.0 B			B	
Approach LOS		E			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	73.6	20.0	16.5	8.9	74.5		36.5				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	48.0	14.5	26.0	9.5	48.0		46.0				
Max Q Clear Time (g_c+l1), s	3.7	23.5	16.5	10.4	3.0	24.1		11.0				
Green Ext Time (p_c), s	0.0	6.1	0.0	0.6	0.0	7.7		0.9				
Intersection Summary	La star								-			
HCM 6th Ctrl Delay			34.0									
HCM 6th LOS			С									

1.9

#### Intersection

Int Delay, s/veh

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4	1		4	-	-	4		
Traffic Vol, veh/h	17	120	4	13	123	34	2	1	14	14	0	10	
Future Vol, veh/h	17	120	4	13	123	34	2	1	14	14	0	10	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized	-	-	None		-	None	-	-	None	-	-	None	
Storage Length	-	-	-		-	150	-	-	-	( <del>-</del>	-	-	
Veh in Median Storage,	# -	0		-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	×	0	-	
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	23	164	5	18	168	47	3	1	19	19	0	14	
Personal de la construcción de la c													

Major/Minor	Major1			Major2	1		Minor1		1	Minor2		-	
Conflicting Flow All	215	0	0	169	0	0	448	464	167	427	419	168	
Stage 1	-	-	-	-	-	-	213	213	-	204	204	-	
Stage 2	-	-		-	-	-	235	251	-	223	215	-	
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22	
Critical Hdwy Stg 1	-	÷	-	-	-	-	6.12	5.52	-	6.12	5.52	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-	
Follow-up Hdwy	2.218	÷	-	2.218	-	-	3.518	4.018	3.318	3.518		3.318	
Pot Cap-1 Maneuver	1355	-	-	1409	-	-	521	495	877	538	525	876	
Stage 1		-	-	-	÷	-	789	726	-	798	733	-	
Stage 2		-	-	-	-	-	768	699	-	780	725	-	
Platoon blocked, %		-			-	-		_					
Mov Cap-1 Maneuver	1355	-	-	1409	-	-	500	478	877	512	507	876	
Mov Cap-2 Maneuver	-	-		-	-	-	500	478	-	512	507	7	
Stage 1	-	-	-	-	-	-	774	712	-		722	-	
Stage 2	-	-			-	. +	745	689		747	711	-	
							1						
Approach	EB			WB			NB			SB			
HCM Control Delay, s	0.9			0.6			9.8			11.1			
HCM LOS							А			В			
Minor Lane/Major Mvn	nt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)		771	1355	-	-	1409	-		619				
HCM Lane V/C Ratio		0.03	0.017	-	-	0.013	-	-	0.053				
HCM Control Delay (s)	)	9.8	7.7	0	-	7.6	0	-	11.1				
HCM Lane LOS		А	А	А	-	А	А	-	В				
HCM 95th %tile Q(veh	)	0.1	0.1	-	-	0	-	-	0.2				

A&R Engineering 22-013 Townhomes on Perimeter Rd

.

4.6

### Intersection

Int Delay, s/veh

EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
	4			4			4			4		
5	9	6	100	12	14	12	162	103	16	167	4	
5	9	6	100	12	14	12	162	103	16	167	4	
0	0	0	0	0	0	0	0	0	0	0	0	
Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
-	-	None	-		None	-	-	None	-	-	None	
-	-		-	-	-		-	-	-	-	-	
# -	0		-	0	-	-	0		-	0	-	
	0	-		0	-	-	0	-	-	0	-	
78	78	78	78	78	78	78	78	78	78	78	78	
2	2	2	2	2	2	2	8	2	2	8	2	
6	12	8	128	15	18	15	208	132	21	214	5	
	5 5 0 Stop - - # - 78 2		↓       ↓	Image: Step Stop       9       6       100         5       9       6       100         0       0       0       0         Stop       Stop       Stop       Stop         -       -       None       -         -       -       -       -         #       -       0       -       -         78       78       78       78         2       2       2       2       2	Image: box of the symbol       Image: box of t	Image: boot with the symbol withe symbol with the symbol with the symbol with t	Image: Stop       Image: Stop <thimage: stop<="" th=""> <thimage: stop<="" th=""></thimage:></thimage:>	Image: Constraint of the constraint	Image: Stop       Image: Stop <thimage: stop<="" th=""> <thimage: stop<="" th=""></thimage:></thimage:>	Image: symbol box         Image: symbol box	Image: state         Image: state <tt>Image: state         <tt>Image: state&lt;</tt></tt>	Lot       Lot       Hot       H

580 259 321 7.12 6.12 6.12	629 259 370 6.52 5.52	217 - - 6.22	573 304 269	565 304 261	274	219	0	0	340	0	0	
321 7.12 6.12	370 6.52	-	269		-							
7.12 6.12	6.52			261		-	-	-	-	-	-	
6.12		6.22		201	÷	-			-	-	×.	
	5 52		7.12	6.52	6.22	4.12		-	4.12	-	-	
6.12	0.02	-	6.12	5.52	+	-	-	-	-	4	-	
	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
.518	4.018	3.318	3.518	4.018			-	-	2.218	-	-	
426	399	823	430	434	765	1350	-	-	1219	-	-	
746	694	-	705	663	-	-	-	-	-	-	-	
691	620	-	737	692	-	-	-	-	-		-	
						-	-	-		-	-	
394	385	823	405		765	1350	100	-	1219	-	-	
394	385	-	405			-	-	-	-	-	-	
736	680	-			-	-	-	-	-	-	-	
650	611		703	678		-	-	-	-		-	
EB			WB		-	NB			SB			
13.3		-	18.4		-	0.3			0.7			
В			С									
-	NBL	NBT	NBR	EBLn1	VBLn1	SBL	SBT	SBR				
1	1350	-	-	461	429	1219		-				
	0.011	-	-	0.056	0.377	0.017	-	-				
	7.7	0		13.3	18.4	8	0	-				
	А	А	-	В	С	А	А	-				
	0	-	-	0.2	1.7	0.1		-				
	426 746 691 394 394 736 650 EB 13.3	426 399 746 694 691 620 394 385 394 385 736 680 650 611 EB 13.3 B NBL 1350 0.011 7.7 A	426 399 823 746 694 - 691 620 - 394 385 823 394 385 - 736 680 - 650 611 - <u>EB</u> 13.3 B <u>NBL NBT</u> 1350 - 0.011 - 7.7 0 A A	426       399       823       430         746       694       -       705         691       620       -       737         394       385       823       405         394       385       -       405         394       385       -       405         736       680       -       695         650       611       -       703         EB       WB         13.3       18.4       B       C         NBL       NBT       NBR         1350       -       -       -         0.011       -       -       -         7.7       0       -       -         A       A       -       -	426       399       823       430       434         746       694       -       705       663         691       620       -       737       692         394       385       823       405       419         394       385       -       405       419         394       385       -       405       419         736       680       -       695       654         650       611       -       703       678         EB       WB         13.3       18.4       B       C         NBL       NBT       NBR EBLn1\/         1350       -       -       461         0.011       -       0.056       7.7       0       -       13.3         A       A       -       B       B       B       0.056       13.3	426       399       823       430       434       765         746       694       -       705       663       -         691       620       -       737       692       -         394       385       823       405       419       765         394       385       -       405       419       -         736       680       -       695       654       -         650       611       -       703       678       -         UBE       WB         ISA       NBL       NBT       NBR EBLn1WBLn1         1350       -       -       461       429         0.011       -       -       0.056       0.377         7.7       0       -       13.3       18.4         A       A       -       B       C	426         399         823         430         434         765         1350           746         694         -         705         663         -         -           691         620         -         737         692         -         -           394         385         823         405         419         765         1350           394         385         -         405         419         -         -           736         680         -         695         654         -         -           736         680         -         695         654         -         -           650         611         -         703         678         -         -           8         C         -         -         -         -         -           13.3         18.4         0.3         -         -         -         -           9         C         -         -         461         429         1219           0.011         -         -         0.056         0.377         0.017           7.7         0         -         13.3         18.4         8 <td>426       399       823       430       434       765       1350       -         746       694       -       705       663       -       -       -         691       620       -       737       692       -       -       -         394       385       823       405       419       765       1350       -         394       385       -       405       419       -       -       -         736       680       -       695       654       -       -       -         736       680       -       695       654       -       -       -         736       680       -       695       654       -       -       -         650       611       -       703       678       -       -       -         8       C       -       -       -       -       -       -       -         13.3       18.4       0.3       -       -       -       -       -       -         0.011       -       -       461       429       1219       -       -       -       -</td> <td>426       399       823       430       434       765       1350       -       -         746       694       -       705       663       -       -       -       -       -         691       620       -       737       692       -       -       -       -       -         394       385       823       405       419       765       1350       -       -         394       385       -       405       419       -       -       -       -         394       385       -       405       419       -       -       -       -         394       385       -       405       419       -       -       -       -         736       680       -       695       654       -       -       -       -         650       611       -       703       678       -       -       -       -         8       C       -       -       -       -       -       -       -       -       -       -         13.3       18.4       0.3       0.377       0.017       -       -<td>426       399       823       430       434       765       1350       -       -       1219         746       694       -       705       663       -       &lt;</td><td>426       399       823       430       434       765       1350       -       -       1219       -         746       694       -       705       663       -       &lt;</td><td>426       399       823       430       434       765       1350       -       -       1219       -       -         746       694       -       705       663       -       &lt;</td></td>	426       399       823       430       434       765       1350       -         746       694       -       705       663       -       -       -         691       620       -       737       692       -       -       -         394       385       823       405       419       765       1350       -         394       385       -       405       419       -       -       -         736       680       -       695       654       -       -       -         736       680       -       695       654       -       -       -         736       680       -       695       654       -       -       -         650       611       -       703       678       -       -       -         8       C       -       -       -       -       -       -       -         13.3       18.4       0.3       -       -       -       -       -       -         0.011       -       -       461       429       1219       -       -       -       -	426       399       823       430       434       765       1350       -       -         746       694       -       705       663       -       -       -       -       -         691       620       -       737       692       -       -       -       -       -         394       385       823       405       419       765       1350       -       -         394       385       -       405       419       -       -       -       -         394       385       -       405       419       -       -       -       -         394       385       -       405       419       -       -       -       -         736       680       -       695       654       -       -       -       -         650       611       -       703       678       -       -       -       -         8       C       -       -       -       -       -       -       -       -       -       -         13.3       18.4       0.3       0.377       0.017       -       - <td>426       399       823       430       434       765       1350       -       -       1219         746       694       -       705       663       -       &lt;</td> <td>426       399       823       430       434       765       1350       -       -       1219       -         746       694       -       705       663       -       &lt;</td> <td>426       399       823       430       434       765       1350       -       -       1219       -       -         746       694       -       705       663       -       &lt;</td>	426       399       823       430       434       765       1350       -       -       1219         746       694       -       705       663       -       <	426       399       823       430       434       765       1350       -       -       1219       -         746       694       -       705       663       -       <	426       399       823       430       434       765       1350       -       -       1219       -       -         746       694       -       705       663       -       <

Synchro 11 Report Page 5

Intersection	-	
Int Delay, s/veh		(

Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1	-	1	1	7
Traffic Vol, veh/h	0	10	0	552	468	6
Future Vol, veh/h	0	10	0	552	468	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Free
Storage Length	-	0	-	-	-	175
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	+	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	0	600	509	7

Major/Minor	Minor2	N	Aajor1	М	ajor2	
Conflicting Flow All	-	509	-	0	-	0
Stage 1	-	-	-		-	-
Stage 2	-	-	-	-		-
Critical Hdwy		6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	564	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuve	r -	564	-	-	-	-
Mov Cap-2 Maneuve	er -	-	-		-	-
Stage 1	-	-	-	-	-	-
Stage 2	-		-	-		-
			1			
Approach	EB		NB	-	SB	15
HCM Control Delay,	s 11.5		0		0	
HCM LOS	В					
Minor Lane/Major Mv	/mt	NBT	EBLn1	SBT		
Capacity (veh/h)		-	564	-		
HCM Lane V/C Ratio	)	-	0.019	-		
HCM Control Delay (	s)	-	11.5	-		
HCM Lane LOS		=	В	-		
HCM 95th %tile Q(ve	eh)	-	0.1	-		

	٨	+	1	+	1	1	1	1	ŧ
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	٦	Ţ.	5	Þ	ካ	1	1	7	Þ
Traffic Volume (vph)	29	53	136	48	91	514	195	24	398
Future Volume (vph)	29	53	136	48	91	514	195	24	398
Lane Group Flow (vph)	31	110	146	81	98	553	210	26	456
Turn Type	Perm	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4	3	8	1	6		5	2
Permitted Phases	4		8		6		6	2	
Detector Phase	4	4	3	8	1	6	6	5	2
Switch Phase									
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	31.5	31.5	15.0	30.5	15.0	28.5	28.5	15.0	28.5
Total Split (s)	31.5	31.5	15.0	46.5	15.0	58.5	58.5	15.0	58.5
Total Split (%)	26.3%	26.3%	12.5%	38.8%	12.5%	48.8%	48.8%	12.5%	48.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min
Act Effct Green (s)	10.7	10.7	25.6	25.6	81.8	76.2	76.2	75.5	69.4
Actuated g/C Ratio	0.09	0.09	0.21	0.21	0.68	0.64	0.64	0.63	0.58
v/c Ratio	0.27	0.59	0.62	0.21	0.17	0.49	0.20	0.05	0.45
Control Delay	54.9	47.2	51.9	27.4	7.3	15.3	5.1	7.2	16.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.9	47.2	51.9	27.4	7.3	15.3	5.1	7.2	16.9
LOS	D	D	D	С	А	В	А	А	В
Approach Delay		48.9	-	43.1		11.9			16.4
Approach LOS		D		D		В			В
Queue Length 50th (ft)	23	56	98	36	22	235	24	6	189
Queue Length 95th (ft)	53	111	153	75	46	378	67	17	307
Internal Link Dist (ft)		1314		635		704			699
Turn Bay Length (ft)	140		210		180	6.5.6	135	185	
Base Capacity (vph)	284	402	236	618	579	1127	1052	559	1022
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.27	0.62	0.13	0.17	0.49	0.20	0.05	0.45
Intersection Summary									
Cycle Length: 120			-						1
Actuated Cycle Length: 12	0								
Offset: 0 (0%), Referenced		SBTL ar	d 6:NBTI	. Start of	Green				
Natural Cycle: 90									
Control Type: Actuated-Co	ordinated								
Maximum v/c Ratio: 0.62									
Intersection Signal Dolour	00.4			1	ntoreactio	n100.0			

Intersection Signal Delay: 20.4 Intersection Capacity Utilization 59.2% Analysis Period (min) 15 Intersection LOS: C ICU Level of Service B

A&R Engineering

22-013 Townhomes on Perimeter Rd

Splits and Phases: 1: SR 53 & Perimeter Rd

101	Ø2 (R)	<b>√</b> Ø3 →Ø4	
5s	58.5 s	15 s 31.9 s	
VØ5	• 1ø6 (R)	<b>₩</b> Ø8	
55	58.5 s	46.5.5	

# HCM 6th Signalized Intersection Summary 1: SR 53 & Perimeter Rd

	1	-	7	1	+	*	1	1	1	5	ŧ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	1		٦	1		1	1	7	1	f)	
Traffic Volume (veh/h)	29	53	49	136	48	27	91	514	195	24	398	26
Future Volume (veh/h)	29	53	49	136	48	27	91	514	195	24	398	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	C
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	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	31	57	53	146	52	29	98	553	210	26	428	28
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	170	74	69	228	235	131	581	1131	998	430	1024	67
Arrive On Green	0.08	0.08	0.08	0.08	0.21	0.21	0.04	0.63	0.63	0.02	0.61	0.61
Sat Flow, veh/h	1317	892	829	1781	1128	629	1781	1796	1585	1781	1668	109
Grp Volume(v), veh/h	31	0	110	146	0	81	98	553	210	26	0	456
Grp Sat Flow(s), veh/h/ln	1317	0	1721	1781	0	1757	1781	1796	1585	1781	0	1777
Q Serve(g_s), s	2.7	0.0	7.5	8.8	0.0	4.6	2.4	19.8	6.8	0.6	0.0	16.0
Cycle Q Clear(g_c), s	2.7	0.0	7.5	8.8	0.0	4.6	2.4	19.8	6.8	0.6	0.0	16.0
Prop In Lane	1.00		0.48	1.00		0.36	1.00		1.00	1.00		0.0
Lane Grp Cap(c), veh/h	170	0	144	228	0	366	581	1131	998	430	0	109
V/C Ratio(X)	0.18	0.00	0.77	0.64	0.00	0.22	0.17	0.49	0.21	0.06	0.00	0.42
Avail Cap(c_a), veh/h	345	0	373	228	0	600	651	1131	998	528	0	1091
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.6	0.0	53.8	44.4	0.0	39.4	8.8	11.9	9.5	9.4	0.0	12.0
Incr Delay (d2), s/veh	0.5	0.0	8.2	5.9	0.0	0.3	0.1	1.5	0.5	0.1	0.0	1.3
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	0.9	0.0	3.5	4.2	0.0	2.0	0.8	7.5	2.3	0.2	0.0	6.
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	0.0	62.0	50.4	0.0	39.7	8.9	13.4	10.0	9.4	0.0	13.
LnGrp LOS	D	A	E	D	А	D	А	В	А	А	А	F
Approach Vol, veh/h		141			227		199	861			482	
Approach Delay, s/veh		59.9			46.6			12.0			13.0	
Approach LOS		E			D			В			В	
Timer - Assigned Phs	1	2	3	4	5	6	-	8				
Phs Duration (G+Y+Rc), s	10.3	79.2	15.0	15.5	8.4	81.1		30.5				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	53.0	9.5	26.0	9.5	53.0		41.0				
Max Q Clear Time (g_c+l1), s	4.4	18.0	10.8	9.5	2.6	21.8		6.6				
Green Ext Time (p_c), s	0.1	5.8	0.0	0.5	0.0	9.2		0.4				
Intersection Summary	0.1	0.0	0.0	0.0	0.0							
			20.8							-		
HCM 6th Ctrl Delay			20.8 C									
HCM 6th LOS			U									

A&R Engineering 22-013 Townhomes on Perimeter Rd

2

#### Intersection

Int Delay, s/veh

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	a provincial and	
Lane Configurations		4			4	1		4			4			
Traffic Vol, veh/h	19	135	4	11	107	37	4	1	8	20	0	15		
Future Vol, veh/h	19	135	4	11	107	37	4	1	8	20	0	15		
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0		
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop		
RT Channelized		-	None			None	-	-	None	-	-	None		
Storage Length		-	-	-	-	150	-	-	-	-	-	-		
Veh in Median Storage,	# -	0			0	-	-	0	-	-	0	-		
Grade, %		0	-	-	0	-	-	0	-	17	0	+		
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90		
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2		
Mvmt Flow	21	150	4	12	119	41	4	1	9	22	0	17		
a constant of the second s														

Major/Minor I	Major1		1	Major2	1		Minor1			Minor2	in the		
Conflicting Flow All	160	0	0	154	0	0	366	378	152	342	339	119	
Stage 1	-	-	-	-	-	-	194	194	-	143	143		
Stage 2	-	-	-	-	-	-	172	184		199	196		
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22	
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	0	5.52	-	6.12	5.52	-	
Follow-up Hdwy	2.218	-	-	2.218	-	-	01010	4.018	3.318	3.518			
Pot Cap-1 Maneuver	1419	-	+	1426	-	-	590	554	894	612	582	933	
Stage 1	-	-	-	-		-	808	740	-	860	779	-	
Stage 2	-	-	-	-	-	-	830	747	-	803	739		
Platoon blocked, %		-	-		-							12-12-2	
Mov Cap-1 Maneuver	1419	-	-	1426	-	-	569	540	894	594	567	933	
Mov Cap-2 Maneuver	-	-	-	-	÷	÷	569	540	-	594	567	-	
Stage 1	-	-	-	+	-	-	795	728	-	846		-	
Stage 2	÷	-	-	-	-	-	808	740	-	781	727	-	_
							1.						
Approach	EB			WB			NB			SB			
HCM Control Delay, s	0.9			0.5			10		1	10.4			
HCM LOS							В			В			
Minor Lane/Major Mvn	nt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)		729	1419		-	1426	-	-	704				
HCM Lana VIC Patio		0.02	0.015		1.6	0 000			0.055				

HCM Lane V/C Ratio 0.02 0.015 -- 0.009 -- 0.055 10 0 7.5 0 10.4 HCM Control Delay (s) 7.6 --В А А А А В HCM Lane LOS --0.2 HCM 95th %tile Q(veh) 0.1 0 0 -. --

3.5

# Intersection

Int Delay, s/veh

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4	-		4			4			4		
Traffic Vol, veh/h	4	9	6	76	21	17	15	308	117	21	190	8	
Future Vol, veh/h	4	9	6	76	21	17	15	308	117	21	190	8	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized		-	None	-	-	None	-	-	None	-	•	None	
Storage Length	-	-	-	÷	-	-	-	-	-	-	-	-	
Veh in Median Storage,	# -	0	-	-	0	-		0		-	0	+	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	
Heavy Vehicles, %	2	2	2	2	2	2	2	8	2	2	8	2	
Mvmt Flow	4	10	6	81	22	18	16	328	124	22	202	9	

Major/Minor	Minor2			Minor1			Major1	-	1	Major2		2.24	1
Conflicting Flow All	693	735	207	681	677	390	211	0	0	452	0	0	
Stage 1	251	251		422	422	-	-	-	-	-	-	-	
Stage 2	442	484	-	259	255	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-		
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-		-	-	-	-	
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	+	-	-	-	-	-	
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-		2.218	-	-	
Pot Cap-1 Maneuver	358	347	833	364	375	658	1360	-		1109	-	-	
Stage 1	753	699	-	609	588	-	-	-	-	-	-	-	
Stage 2	594	552	-	746	696	-	-		-	-	-	-	
Platoon blocked, %								-	-		-	-	
Mov Cap-1 Maneuver	322	334	833	343	361	658	1360			1109	+	-	
Mov Cap-2 Maneuver	322	334	-	343	361		-	-	-	-	-	-	
Stage 1	741	684	-	599	579	-	-	-	-			-	
Stage 2	546	543	-	714	681	-		-		-	-	-	

Approach	EB	WB	NB	SB	
HCM Control Delay, s	14.3	19.2	0.3	0.8	
HCM LOS	В	С			

						-	-	
Minor Lane/Major Mvmt	NBL	NBT	NBR E	BLn1V	VBLn1	SBL	SBT	SBR
Capacity (veh/h)	1360	-		408	373	1109	-	-
HCM Lane V/C Ratio	0.012	-		0.05	0.325	0.02	-	-
HCM Control Delay (s)	7.7	0	•	14.3	19.2	8.3	0	-
HCM Lane LOS	A	А		В	С	A	А	1.14
HCM 95th %tile Q(veh)	0	-	-	0.2	1.4	0.1	-	-

A&R Engineering

22-013 Townhomes on Perimeter Rd

Intersection				-		
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		1	1	1
Traffic Vol, veh/h	0	14	0	570	433	7
Future Vol, veh/h	0	14	0	570	433	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Free
Storage Length	-	0		-	-	175
Veh in Median Storage	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	15	0	620	471	8
Major/Minor I	Minor2		Major1		Major2	1.13
Conflicting Flow All	-	471	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-		-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy			-	•	-	-
Pot Cap-1 Maneuver	0	593	0	-	-	0
Stage 1	0	-	0		÷	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				•	-	
Mov Cap-1 Maneuver	-	593	-	-	-	1
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-		
Stage 2	-	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	11.2		0		0	
HCM LOS	В					
No. 8 San Cons						
Minor Lane/Major Mvn	nt	NBT	EBLn1	SBT	-	
Capacity (veh/h)		-	593	-	-	
HCM Lane V/C Ratio		-	0.026	-		
HCM Control Delay (s)			11.2	-		
HOM Lang LOO						

A&R Engineering 22-013 Townhomes on Perimeter Rd

HCM Lane LOS

HCM 95th %tile Q(veh)

-

-

В

0.1

-

-

TRAFFIC VOLUME WORKSHEETS

22-013 Townhome Development on Perimeter Road in Dawson County, GA Traffic Volumes

A&R Engineering February 2022

### 1. SR 53 @ Perimeter Rd

## A.M. Peak Hour (7 am - 9 am)

		15	SR 53			S	SR 53			Perime	Perimeter Road			Perime	Perimeter Road	
		North	Northbound			South	Southbound			Eastl	Eastbound			West	Westbound	
Condition	L	۲	ы	Tot		ŗ	¥	Tot	1	Т	Я	Tot		т	R	Tot
Existing 2022 Traffic Counts:	16	306	238	560	50	416	22	488	40	127	55	222	257	75	51	383
Growth Factor (%):	4	4	4		4	4	4		4	4	4		4	4	4	
No-Build 2024 Volumes:	17	330	257	604	54	449	24	527	43	137	6	739	278	81	55	414
Total New Trips:	15	0	0	15	'n	17	0	20	7	ю	17	22	0	7	0	7
Future 2024 Traffic Volumes:	32	330	257	619	57	466	24	547	50	140	76	266	278	83	55	416
			Sch	School Dismissal Peak Hour (2 pm - 4 pm)	ússal Pe	ak Hoi	ur (2 pu	n - 4 pm)								
		iS	SR 53			ß	SR 53			Perime	Perimeter Road			Perime	Perimeter Road	
		North	Northbound			South	Southbound			East	Eastbound			West	Westbound	
Condition	<b>}</b> ~	F	P	Tot		F	4	Tot		F	2	Tot	<u> </u>	۲	~	Tot

Existing 2022 Traffic Counts:	52	432	126	580	72	378	38	433	27	53	37	117	240	76	48	364
Growth Factor (%):	4	4	4		4	4	4		4	4	4		ব	4	4	
No-Build 2024 Volumes:	24	467	136	627	29	408	30	467	29	57	40	126	259	82	23	393
Total New Trips:	29	0	0	29	-	6	0	10	4	1	6	14	0	'n	0	ы
Future 2024 Traffic Volumes:	53	467	136	656	30	417	30	477	33	58	49	140	259	87	52	398
				P.M. P	P.M. Peak Hour (4 pm - 6 pm)	ır (4 pr	1-6 pm									
		SR	SR 53			SR 53	53			Perimeter Road	r Road			Perimeter Road	r Road	
		North	Northbound			Southbound	punq			Eastbound	bund			Westbound	pune	
Condition	L L	Г	×	Tot	L]	Ŧ	R	Tot	ŗ	Т	×	Tot	Г	Т	2	Tot
Existing 2022 Traffic Counts:	55	476	181	712	20	357	54	401	22	47	34	103	126	40	25	191
Growth Factor (%):	4	4	4		4	4	4		4	4	4		4	4	4	
No-Build 2024 Volumes:	66	514	195	768	22	386	26	434	24	51	37	112	136	43	22	206
Total New Trips:	32	0	0	32	5	12	0	14	Ś	61	12	19	0	ເກ	0	ъ
Future 2024 Traffic Volumes:	16	514	195	800	24	398	26	448	29	53	49	131	136	48	27	211

Future 2024 Traffic Volumes:

22-013 Townhome Development on Perimeter Road in Dawson County, GA Traffic Volumes

### A&R Engineering February 2022

# A.M. Peak Hour (7 am - 9 am)

2. Perimeter Rd @ Farmington Cir / Site Drwy 1

		Farming	Farmington Circle	e		Site Driveway	veway 1			Perimet	Perimeter Road			Perimeter Road	er Road	
		North	Northbound			South	Southbound			Eastb	Eastbound	:		Westbound	ound	
Condition	7	L	Ч	Tot	Ч	Т	Я	Tot	L	T	¥	Tot	L,	Г	ĸ	Tot
Existing 2022 Traffic Counts:	9	Û	53	28	0	0	0	0	0	191	6	193	10	102	0	112
Growth Factor (%):	4	4	4		4	4	4		4	4	4		4	ষ	4	
No-Build 2024 Volumes:	6	0	24	30	0	0	0	0	0	206	2	208	11	110	0	121
Total New Trips:	0	0	0	0	26	1	20	47	6	0	0	6	0	0	17	17
Future 2024 Traffic Volumes:	ę	0	24	30	26	1	20	47	6	206	7	217	11	110	17	138

		Farming	Farmington Circle	e		Site Dri	Site Driveway 1			Perime	Perimeter Road			Perimeter Road	er Road	
		North	Northbound			South	Southbound			East	Eastbound		i	Westbound	puno	
Condition	7	H	¥	Tot	T	Ţ	¥	Tot	ų	T	2	Tot	-	т	R	Tot
Existing 2022 Traffic Counts:	2	0	13	15	0	0	0	0	0	111	4	115	12	114	0	126
Growth Factor (%):	4	শ	4		4	4	4		4	4	4		4	4	4	
No-Build 2024 Volumes:	2	0	14	16	0	0	0	0	0	120	4	124	13	123	0	136
Total New Trips:	0	***	0		14	0	10	24	17	0	0	17	0	0	34	z
Future 2024 Traffic Volumes:	3	m	14	17	14	0	10	24	17	120	4	141	13	123	34	170
				P.M. I	P.M. Peak Hour (4 pm - 6 pm)	ur (4 pn	u - 6 ptr					-				
		Farming	Farmington Circle	je.		Site Dri	Site Driveway 1			Perime	Perimeter Road			Perimet	Perimeter Road	
		North	Northbound			South	Southbound			East	Eastbound			West	Westbound	

		Farmington Circle	ton Circl	e e		Site Driveway	reway 1			Perimeter Road	er Road			Perimeter Road	ier Road	
		North	Northbound			Southbound	punoq			Eastb	Eastbound			West	Westbound	
Condition	<u>ר</u>	T	R	Tot		T	2	Tot		T	×	Tot	L	Т	Я	Tot
Existing 2022 Traffic Counts:	4	0	7	11	0	0	0	0	û	125	4	129	10	8	0	109
Growth Factor (%):	4	4	4		4	4	4		4	4	4		4	4	4	
No-Build 2024 Volumes:	4	0	80	12	0	0	0	0	Ð	135	4	139	11	107	0	118
Total New Trips:	0	1	0	1	20	0	15	35	19	0	0	19	o	0	37	37
Future 2024 Traffic Volumes:	4	1	œ	13	20	0	15	35	19	135	4	158	11	107	37	155

22-013 Townhome Development on Perimeter Road in Dawson County, GA Traffic Volumes

### A&R Engineering February 2022

## A.M. Peak Hour (7 am - 9 am)

3. SR 9 @ Perímeter Rd

		SI	SR 9			SR 9	6			J C Burt Road	t Road			Perimet	Perimeter Road	
		North	Northbound			Southbound	punoq			Eastb	Eastbound			West	Westbound	
Condition		Н	×	Tot	1	T	~	Tot	T	ĩ	ы	Tot	Ľ,	T	2	Tot
Existing 2022 Traffic Counts:	2	151	147	300	10	425	2	437	Ģ	21	23	50	95	Q,	7	108
Growth Factor (%):	ব	4	4		4	4	4		ব	4	4		ষ	ষ	4	
No-Build 2024 Volumes:	2	163	159	324	11	459	7	472	Ģ	73	ង	54	103	9	80	117
Total New Trips:	0	0	9	9	ĥ	0	0	з	0	0	0	0	13	0	2	20
Future 2024 Traffic Volumes:	7	163	165	330	14	459	7	475	9	23	25	54	116	9	15	137

															ŀ	I
		SR 9	6			SR 9	6			J C Burt Road	Road			Perimeter Koad	r Koad	
		Northb	puno			Southb	puno			Eastbound	pun			Westbound	pund	
Condition	Ч	H	×	L T R Tot	니	T R Tot	¥	Tot	Ļ	E	×	Tot	Ц	T	ĸ	
Existing 2022 Traffic Counts:	11	11 150 84	84	245	6	155	4	155 4 168	ы	8	Ģ	19	86	Ц	10	Ħ
Growth Factor (%):	4	4	4		দ	4	দ		4	4	4		4	4	4	
No-Build 2024 Volumes:	12	162	16	265	10	167	4	181	ы	6	9	20	93	12	11	-
Total New Trips:	0	0	12	12	ę	0	0	9	0	0	0	0	7	0	εŋ	-

Tot

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Future 2024 Traffic Volumes:

				P.M. P6	P.M. Peak Hour (4 pm - 6 pm)	r (4 pm	- 6 pm	_								
		SR 9	6			SR 9	6			J C Burt Road	Road			Perimeter Road	rimeter Road	
Cendition	L.	Northbound T R	R	Tot	Г	Southbound T R	R	Tot	L	T R	n R	Tot		H H	R	Tot
Existing 2022 Traffic Counts:	14	285	96	395	14	176	2	197	ব	80	9	18	61	19	11	16
Growth Factor (%):	4	4	4		4	4	4		4	4	4		4	4	4	
No-Build 2024 Volumes:	15	308	104	427	15	190	8	213	4	6	ę	19	66	71	12	66
Total New Trips:	0	0	13	13	9	0	0	9	0	0	0	0	10	0	ŝ	15
Future 2024 Traffic Volumes:	15	308	117	440	21	190	80	219	দ	6	9	19	26	21	17	114

22-013 Townhome Development on Perimeter Road in Dawson County, GA Traffic Volumes

### A&R Engineering February 2022

## A.M. Peak Hour (7 am - 9 am)

4. SR 53 @ Drwy 2 (RIRO)

$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$			SR	SR 53			SR	SR 53		Site	Site Driveway 2 (RIRO)	'ay 2 (RI	RO)				
L         T         R         Tot         R         Tot         L         T         R         Tot         L         T         R         Tot         L         T         R         Tot         L         T         R         Tot         L         Tot         R         Tot         L         Tot         R         Tot         L         T         R         Tot         L         T         R         Tot         L         R         Tot         L         R         L         L         R         L         L         R         L         L         R         R         L         L         R         L         L         R         L         L         R         L         L         R         L         L         R         L<			North	punoq			South	punoq			Eastb	puno			West	pound	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Condition	<del>ر</del>	T	2	Tot	L	Т	2	Tot		н	ч	Tot	Ľ	T	ч	Tot
4         4	Existing 2022 Traffic Counts:	0	397	0	397	0	488	0	488	0	0	0	0	0	0	0	0
0         429         0         429         0         527         0         527         0         0         0         0         0         10         13         13         14         10	Growth Factor (%):	4	4	4		Ŧ	4	4		4	4	4		4	4	4	
0 7 0 7 0 3 3 3 0 0 19 0 436 0 436 0 527 3 530 0 0 19	Jo-Build 2024 Volumes:	0	429	0	429	0	527	0	527	0	0	0	0	0	0	0	0
0 436 0 436 0 527 3 530 0 0 19	otal New Trips:	0	2	0	7	0	0	ŝ	c.	0	0	19	19	0	0	0	0
	uture 2024 Traffic Volumes:	0	436	0	436	0	527	rt)	530	0	0	19	19	0	0	0	0

		SI	SR 53			SR 53	53		Site	: Drivew	Site Driveway 2 (RIRO)	RO)		•		
		North	Northbound			South	Southbound			East	Eastbound			Westh	Westbound	
Condition	<b>ب</b>	Т	2	Tot	H	T	×	Tot		⊢	R	Tot		T	R	Tot
Existing 2022 Traffic Counts:	0	507	0	507	0	433	0	433	0	0	0	0	o	0	0	0
Growth Factor (%):	4	4	4		ষ	4	4		4	4	4		4	4	Ŧ	
No-Build 2024 Volumes:	0	548	0	548	0	468	0	468	0	0	0	0	0	0	0	0
Total New Trips:	0	4	0	ኮ	0	0	Ģ	9	0	0	10	10	0	0	0	0
Future 2024 Traffic Volumes:	0	552	0	552	0	468	\$	474	0	0	10	10	0	0	0	•
				P.M.I	P.M. Peak Hour (4 pm - 6 pm)	ur (4 pn	1-6 pu	•								
		S	SR 53			SR	SR 53		Sit	e Drivev	Site Driveway 2 (RIRO)	RO)				
		North	Northhound			South	Southhound			East	Easthound			West	Westbound	

		SR	SR 53			SR	SR 53		Site I	Drivew.	ay 2 (RII	(Q)				
		Northbound	punoq			South	punoq			Eastb	puno			West	bound	
Condition		F	ы	Tot		T	ы	Tot		Т	×	Tot	L,	н	ч	Tot
Existing 2022 Traffic Counts:	0	523	0	523	0	401	0	401	0	0	0	0	0	0	0	0
Growth Factor (%):	4	4	4		4	4	4		4	4	4		4	4	4	
No-Build 2024 Volumes:	0	565	٥	565	0	433	٥	433	0	0	0	0	0	0	0	0
Total New Trips:	0	ŝ	0	Ľ	0	0	7	7	0	0	14	14	0	0	0	0
Future 2024 Traffic Volumes:	0	570	0	570	0	433	7	440	0	0	14	14	0	0	0	0



#### DAWSONVILLE CITY COUNCIL EXECUTIVE SUMMARY FOR AGENDA ITEM # <u>11</u>

#### SUBJECT: REQUEST FOR REFUND OF BUILDING PERMIT FEE

CITY COUNCIL MEETING DATE: 10/03/2022

BUDGET INFORMATION: GL ACCOUNT #\_\_\_\_\_

Funds Available from:	Annual Budget:	Capital Budget: Oth	ner
Budget Amendment Reque	est from Reserve:	Enterprise Fund:	General Fund

#### PURPOSE FOR REQUEST:

Request approval from resident Paul Winschuh for refund of building permit fee of \$400.00

#### HISTORY/ FACTS / ISSUES:

- Called Dawson County to verify if a permit was needed, they did not check the address to see which jurisdiction property was in; and told him that if it was 200 square foot and under a permit was not needed.
- Mr. Winschuh was in the process of building his shed when he was informed that a permit was needed.
- A variance for the placement of the shed was approved by Planning Commission on September 12, 2022.
- The minimum requirement for the square footage of a storage building will be done on the next update of the regulations: to 201' square foot or less will not be required to obtain a permit.

<u>OPTIONS:</u> Approve, Deny or Postpone

RECOMMENDED SAMPLE MOTION:

DEPARTMENT: Planning and Zoning

REQUESTED BY: Diane Callahan



To whom it may concern:

I would like to request a refund for the building permit fee, since the law will be amended soon, and my size shed will no longer require a permit. I have already paid \$436 for the variance.

Thank you for your kind consideration!

Paul Winschuh



#### **City of Dawsonville** 415 HIGHWAY 53 STE 100 DAWSONVILLE, GA 30534

ATTN: Beverly Banister, City Clerk (706)265-3256

#### **INVOICE** #

12300239

INVOICE DATE: 09/23/22 DUE DATE: 10/23/22

ACCOUNT ID:

Paul Winschuh 375 ANGELA LANE LOT 46B Dawsonville, GA 30534

PERMIT INFORMATION PERMIT NO: C2300029 LOCATION: 375 ANGELA LANE 46B OWNER: Paul Winschuh

QUANTITY/UNIT	SERVICE ID	DESCRIPTION	UNIT PRICE	AMOUNT
		Permit No: C2300029		
1.0000	P-0001	RESIDENTIAL CERTIFICATE	50.00000	50.00
		Permit No: C2300029		
1,0000	P-0097P	PERMIT REVIEW FEE	50,000000	50.00
		Permit No: C2300029		
1.0000	P-0107A	ACCESSORY BUILDING INSPECTION	200.000000	200.00
		Permit No: C2300029		
1.0000	P-0111M	MINIMUM PERMIT FEE	100,000000	100.00
		Permit No: C2300029		
			TOTAL DUE:	\$ 400.00
		Prn Payment: 09/23/22 CK 629		-400.00
			BALANCE:	\$ 0.00

PAYMENT COUPON - PLEASE DETACH AND RETURN THIS PORTION ALONG WITH YOUR PAYMENT

City of Dawsonville 415 HIGHWAY 53 STE 100 DAWSONVILLE, GA 30534

INVOICE #: 12300239 DESCRIPTION: Permit No: C2300029 ACCOUNT ID: DUE DATE: 10/23/22 TOTAL DUE: \$0.00



Paul Winschuh 375 ANGELA LANE LOT 46B Dawsonville, GA 30534



#### DAWSONVILLE CITY COUNCIL EXECUTIVE SUMMARY FOR AGENDA ITEM # 12

#### SUBJECT: RED HAWK SUBDIVISION ROAD DEDICATION REQUEST

CITY COUNCIL MEETING DATE: 10/03/2022

BUDGET INFORMATION: GL ACCOUNT #\_\_\_\_\_

Funds Available from: \_\_\_\_\_ Annual Budget \_\_\_\_\_ Capital Budget \_\_\_\_Other \_\_\_\_\_

Budget Amendment Request from Reserve: \_\_\_\_Enterprise Fund \_\_\_\_General Fund

PURPOSE FOR REQUEST:

REQUEST APPROVAL FOR ACCEPTANCE OF ROADS AND THE RIGHT OF WAY FOR RED HAWK RIDGE SUBDIVISION.

HISTORY/ FACTS / ISSUES:

Construction started in 2005 and consists of 184 Single Family Homes. There are 9 roads for which they are asking to be accepted into the City: Red Hawk Drive, Peregrine Lane North, Peregrine Lane South, Aplomado Lane East, Aplomado Lane West, Swanson Street, Harrier Drive, Kestrel Court West, Kestrel Court East.

OPTIONS:

RECOMMENDED SAMPLE MOTION:

REQUESTED BY: Diane Callahan, Interim Planning Director\_\_\_\_



September 19, 2022

#### VIA FEDEX and VIA EMAIL at diane.callahan@dawsonville-ga.gov

Diane Callahan Interim Planning Direction City of Dawsonville 415 Hwy 53 #100 Dawsonville, GA 30534

#### **RE: Red Hawk subdivision**

Dear Diane,

This firm represents LCG Residential, LLC ("LCG"), owner and developer of the Red Hawk development ("Red Hawk") within the City of Dawsonville ("City").

This letter is a request that the City of Dawsonville accept dedication of the roads within Red Hawk.

Attached are the following documents:

- 1. Indemnity & Undertaking Agreement (executed)
- 2. Title Certificate and Opinion Effective August 4, 2022
- 3. Right of Way Warranty Deed (executed)

Please contact me if you have any questions or concerns at all regarding this letter.

When accepted by the City, please send to me (email is fine) a copy of the executed recorded deed.

Sincerely,

Denly H. Knaly

Wendy W. Kraby

cc: LCG Residential, LLC (via email)

49 Atlanta Street Marietta, Georgia 30060

2951 Flowers Road South, Suite 220 Atlanta, Georgia 30341

Gregory, Doyle, Calhoun & Rogers, LLC

#### INDEMNITY & UNDERTAKING AGREEMENT (GAP)

WHEREAS, The City of Dawsonville ("City") is to take title to the roads and right of way (the "Dedication") as stated in the Title Commitment (attached hereto as Exhibit "A") from LCG Residential, LLC ("LCG");

**AND WHEREAS,** the City has raised as title exceptions on certain defects or other matters, hereinafter referred to as the "Exception", more particularly described as follows:

Any defect, lien, encumbrance, adverse claim or other matter that appears for the first time in the Public Records or is created, attaches or is disclosed between the Effective Date of the Title Certificate attached hereto as "Exhibit A") and the date of Dedication.

**NOW THEREFORE,** in consideration of the issuance of the Dedication, to the extent permitted by law, the undersigned, hereby covenants and agrees with the City:

- 1. to forever fully protect, defend and save the City harmless from and against the Exception, in and from any and all actual loss, costs, damages, attorneys' fees and expenses of every kind and nature which it may suffer, expend or incur, or by reason, or in consequence of the Dedication on account, or in consequence, or growing out of the Exception only, or on account of the assertion or enforcement or attempted assertion or enforcement thereof or of any rights existing or hereafter arising, or which may at any time be claimed to exist under, or by reason, or in consequence, or growing out of the Exception;
- 3. to pay, discharge, satisfy or remove the Exception and, when the Exception appears as a matter of public record, to clear the record by the recording or filing of releases, assignments, deeds or other appropriate instruments, or by the procurement of a final court order or judgment entered by a court of competent jurisdiction quieting the title of the insured, or declaring the Exception to be null and void and of no force and effect, on or before 30 DAYS AFTER RECEIPT OF DEMAND FROM THE CITY, and
- 4. that each and every provision herein shall extend and be in force concerning the Dedication.

The undersigned agrees that this Agreement is not intended to give any benefits, rights, privileges, actions or remedies to any person or party, other than the City, as a third party beneficiary or otherwise under any theory of law.

The undersigned hereby agrees that in lieu of an original written signature the facsimile or the electronically transmitted signature on this document will constitute a valid original signature to this document and can be relied upon for enforcement purposes.

[Remainder of page intentionally left blank; Signature page to follow]

IN WITNESS WHEREOF, the parties have executed this agreement this \_\_\_\_\_ day of , 2022.

#### LCG Residential, LLC, a Georgia limited liability company

By:

Matthew Bennett, Managing Member

City of Dawsonville, a political subdivision of the state of Georgia

By: \_\_\_\_\_

Please return to: City of Dawsonville Planning and Zoning Department 415 Hwy. 53E, Suite 100 Dawsonville, GA 30534

Parcel ID: \_\_\_\_\_

#### RIGHT OF WAY WARRANTY DEED City Council of Dawsonville, Georgia

#### STATE OF GEORGIA COUNTY OF DAWSON

١

THIS DEED made this \_\_\_\_\_\_day of \_\_\_\_\_\_, 2022 between LCG Residential, LLC, the Grantor, and City of Dawsonville, a political subdivision of the State of Georgia, the Grantee.

#### WITNESSETH:

WITNESSETH: That, Grantor, for and in consideration of TEN DOLLARS (\$10.00) AND OTHER GOOD AND VALUABLE CONSIDERATION, in hand paid at and before the sealing and delivery of these presents, the receipt and sufficiency of which are hereby acknowledged, has granted, bargained, sold, and conveyed, and by these presents does grant, bargain, sell and convey unto Grantees, all that tract or parcel of land more particularly described a follows:

All that tract of parcel of land, lying and being in land Lot(s) 308 and 309 of the 4th District, 1st Section of Dawson County, Georgia, being a portion of Red Hawk Ridge, Phase 1,2,3 and 4 Subdivision, (hereafter collectively and individually referred to as the "Roads"); as shown on Exhibit "A," attached hereto.

TO HAVE AND TO HOLD the said bargained premises, together with all and singular the rights, members and appurtenances thereof, to the same being, belonging or in anywise appertaining, to the only proper use, benefit and behoof of Grantee, forever, in fee simple. Grantor shall warrant and forever defend the right, title and interest in and to said property unto Grantee, its successors and assigns, against the claims of all persons whomsoever. Where the context requires or permits, "Grantor" and "Grantee" shall include their respective heirs, successors and assigns.

[REMINDER OF PAGE LEFT BLANK]

#### **EXHIBIT "A"**

#### PHASE 1 ROADS

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LAND LOTS 308 AND 309 OF THE 4<sup>TH</sup> DISTRICT, 1<sup>ST</sup> SECTION, CITY OF DAWSONVILLE, DAWSON COUNTY, GEORGIA, BEING KNOWN AS THE "ROADS" LOCATED IN RED HAWK RIDGE SUBDIVISION, PHASE 1, MORE PARTICULARLY DESCRIBED AS FOLLOWS: **RED HAWK DRIVE 50-FOOT R/W, KESTRAL COURT WEST 50-FOOT R/W, HARRIER DRIVE 50-FOOT R/W, KESTRAL COURT EAST 50-FOOT R/W, APLOMADO LANE WEST 50-FOOT R/W, APLOMADO LANE EAST 50-FOOT R/W, PEREGRINE LANE NORTH 50-FOOT R/W AND PEREGRINE LANE SOUTH, AS SHOWN ON A PLAT RECORDED IN PLAT BOOK 70, PAGES 235, 237, 239, 241 AND 243, DAWSON COUNTY, GEORGIA RECORDS, SAID PLAT IS INCORPORATED HEREIN AND MADE A PART HEREOF BY REFERENCE FOR A COMPLETE LEGAL DESCRIPTION.** 

#### <u>AND</u>

#### PHASE 2 ROADS

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LAND LOT 308 OF THE 4<sup>TH</sup> DISTRICT, 1<sup>ST</sup> SECTION, CITY OF DAWSONVILLE, DAWSON COUNTY, GEORGIA, BEING KNOWN AS THE **"ROADS"** LOCATED IN RED HAWK RIDGE SUBDIVISION, PHASE 2, MORE PARTICULARLY DESCRIBED AS FOLLOWS: **RED HAWK DRIVE 50-FOOT R/W, KESTRAL COURT EAST 50-FOOT R/W AND APLOMADO** LANE EAST 50-FOOT R/W, AS SHOWN ON A PLAT RECORDED IN PLAT BOOK 76, PAGES 41-45, DAWSON COUNTY, GEORGIA RECORDS, SAID PLAT IS INCORPORATED HEREIN AND MADE A PART HEREOF BY REFERENCE FOR A COMPLETE LEGAL DESCRIPTION.

#### **EXHIBIT "A", CONTINUED**

#### PHASE 3 ROADS

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LAND LOT 308 OF THE 4<sup>TH</sup> DISTRICT, 1<sup>ST</sup> SECTION, CITY OF DAWSONVILLE, DAWSON COUNTY, GEORGIA, BEING KNOWN AS THE **"ROADS"** LOCATED IN RED HAWK RIDGE SUBDIVISION, PHASE 3, MORE PARTICULARLY DESCRIBED AS FOLLOWS: APLOMADO LANE EAST 50-FOOT R/W, AS SHOWN ON A PLAT RECORDED IN PLAT BOOK 82, PAGES 20-22, DAWSON COUNTY, GEORGIA RECORDS, SAID PLAT IS INCORPORATED HEREIN AND MADE A PART HEREOF BY REFERENCE FOR A COMPLETE LEGAL DESCRIPTION.

#### <u>AND</u>

#### PHASE 4 ROADS

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LAND LOT 308 OF THE 4<sup>TH</sup> DISTRICT, 1<sup>ST</sup> SECTION, CITY OF DAWSONVILLE, DAWSON COUNTY, GEORGIA, BEING KNOWN AS THE "ROADS" LOCATED IN RED HAWK RIDGE SUBDIVISION, PHASE 4, MORE PARTICULARLY DESCRIBED AS FOLLOWS: RED HAWK DRIVE 50-FOOT R/W, HARRIER DRIVE 50-FOOT R/W, KESTRAL COURT EAST 50-FOOT R/W; SWAINSON STREET 50-FOOT R/W, PEREGRINE LANE NORTH 50-FOOT R/W AND PEREGRINE LANE SOUTH 50-FOOT R/W, AS SHOWN ON A PLAT RECORDED IN PLAT BOOK 82, PAGES 24-27, DAWSON COUNTY, GEORGIA RECORDS, SAID PLAT IS INCORPORATED HEREIN AND MADE A PART HEREOF BY REFERENCE FOR A COMPLETE LEGAL DESCRIPTION.

IN WITNESS WHEREOF, the said Grantor has executed the indenture under seal the day and year first above written.

Signed, sealed, and delivered in the presence of:

Witness

Notary Public My Commission Expires: 07/06/2024 [NOTARY SEAL]

GRANTOR: LCG Residential, LLC

By:

Matthew Bennett, Managing Member



(SEAL)

#### ATTORNEY CERTIFIED LAND TITLE, L.L.C. 550 SAILWIND DRIVE ROSWELL, GA 30076

EDMUND P. BURKE, ESQ. \* MEMBER \* TELEPHONE (770) 643-2234 Facsimile (770) 643-0827

#### TITLE CERTIFICATE AND OPINION

This Title Certificate and Opinion is valid only if the Standard Exceptions, Special Exceptions and Exhibit "A" are attached. It is provided for the sole benefit and use of:

GDCR, Attorneys at Law and The City of Dawsonville, Georgia

CLIENT FILE #:	2021-Red Hawk Ridge Roads – Update
PROPERTY ADDRESS:	Roads in Phases I, 2, 3 and 4 – Red Hawk Ridge
	Dawson County Georgia Government
SCOPE OF SEARCH:	FULL SEARCH Update
EFFECTIVE DATE:	August 4, 2022

#### TITLE IS VESTED IN

After careful examination of the real estate records of the Office of the Clerk of Superior Court of **Dawson County, Georgia**, in which the Subject Property lics; and according to such records as properly and correctly indexed, and effective through **August 4**, **2022**, the Undersigned Certifies that good and merchantable **fee simple title** to the real estate (Subject Property per Exhibit "A"), subject to the Standard Exceptions and Special Exceptions set forth below, and by virtue of the Vesting Instruments set forth below, **Vests In**:

#### LCG Residential, LLC, a Georgia limited liability company

#### **VESTING INSTRUMENTS:**

1. Limited Warranty Deed from REO Funding Solutions, III, LLC, a Georgia limited liability company, to LCG Residential, LLC, a Georgia limited liability company, dated 12/11/2014, filed 12/15/2014, and recorded in Deed Book/Page 1135/383.

#### SUBJECT PROPERTY

(See Legal Description per EXHIBIT "A" Attached) Dawson County, Georgia
4th District, 1st Section, Land Lots 308 and 309 Roads in Phases 1, 2, 3 and 4 – Red Hawk Ridge

DATED: 8/15/2022

E.R. P. P. h.

Edmund P. Burke - Examining Attorney (Total Pages with Attachments)

#### SPECIAL EXCEPTIONS

#### 1. SECURITY INSTRUMENTS AND UCC'S:

- a. No Open Loans found of record, Please Inquire.
- 2. TAXES: Roads in Phases 1, 2, 3 and 4.
  - a. No tax parcel number has been assigned to the streets in the subdivision, and no taxes have been assessed.

#### 3. LIENS, JUDGMENTS, SUPERIOR COURT CIVIL SUITS:

a. N/A.

#### 4. **OTHER EXCEPTIONS:**

- a. N/A.
- 5. NOTES:
  - a. N/A.
- 6. PLAT:
  - a. Subject to all matters as shown on plat for Phase 1 recorded in Plat Book/Pages 70/235-243.
  - b. Subject to all matters as shown on plat for Phase 2 recorded in Plat Book/Pages 76/41-45.
  - c. Subject to all matters as shown on plat for Phase 3 recorded in Plat Book/Pages 82/20-22.
  - d. Subject to all matters as shown on plat for Phase 4 recorded in Plat Book/Pages 82/24-27.

#### 7. COVENANTS:

 Declaration of Covenants, Conditions, and Restrictions by Knight Group, Inc., a Georgia corporation, (Declarant), dated 5/16/2007, filed 5/21/2007, and recorded in Deed Book/Page 812/108;

as amended in Deed Book/Page 874/433; to add Phase 2

as affected by Assignment of Declarant Rights to Atlas LCG Residential, LLC, a Georgia limited liability company, dated 9/27/2012, filed 10/29/2012, and recorded in Deed Book/Page 1045/323.

as further affected by Quitelaim Transfer of Declarant Rights to LCG Residential, LLC, a Georgia limited liability company, dated 2/2/2015, filed 4/13/2015, and recorded in Deed Book/Page 1148/530 and as may be further amended. (PUD – Mandatory HOA Membership and Creation of Lien Assessment).

#### 8. EASEMENTS/OTHER PERMITTED EXCEPTIONS:

- a. Easement from George Elliott to Georgia Power Company, dated 1/21/1966, filed 2/25/1966, and recorded in Deed Book/Page 4/288(b).
- b. Easement from George Elliott to Georgia Power Company, dated 5/5/1967, filed 5/13/1967, and recorded in Deed Book/Page 6/324.
- c. Easement from George Elliott to Georgia Power Company, dated 6/7/1968, filed 6/19/1968, and recorded in Deed Book/Page 8/252.
- d. Easement from E. G. Elliott to Georgia Power Company, dated 10/10/1968, filed 10/25/1968, and recorded in Deed Book/Page 9/33.
- e. Easement from E. G. Elliott to Georgia Power Company, dated 3/20/1969, filed 3/24/1969, and recorded in Deed Book/Page 9/417.

#### 8. EASEMENTS/OTHER PERMITTED EXCEPTIONS:

- f. Right of Way Deed from George Elliott to State Highway Department of Georgia, dated 3/7/1972, filed 8/21/1979, and recorded in Deed Book/Page 48/616.
- g. Easement from Knight Group, Inc. to Atlanta Gas Light Company, dated 5/16/2007, filed 5/21/2007, and recorded in Deed Book/Page 752/554.
- h. Sanitary Sewer Easement by and between Steve Blanchard and Knight Group, Inc., dated 7/25/2006, filed 8/15/2006, and recorded in Deed Book/Page 757/571.

#### STANDARD EXCEPTIONS

All questions with reference to the following matters are not certified herein and are expressly excepted from this Title Certificate and Opinion:

- 1. All matters of record subsequent to the Effective Date of this Title Certificate and Opinion.
- Such state of facts as would be disclosed by a current, accurate survey and careful inspection of Subject Property. (Obtaining a current survey is always advisable to determine the existence of encroachments, over-hangs or over-laps, to verify that improvements are within the boundaries of the property and to clearly establish boundary lines and properly mark corners).
- 3. Title to any portion of the Subject Property within the bounds of any public road.
- 4. Possessory rights or other claims of any tenants in possession and whose rights or claims are not shown of record.
- 5. Improperly indexed instruments and other errors of personnel of said Clerk's office.
- 6. Unrecorded claims of liens for labor or material furnished for the improvement of the Subject Property.
- 7. All casements, rights-of-way, liens, protective covenants, restrictions and other claims or matters not shown of record.
- 8. All municipal and county zoning ordinances and regulations and all Governmental regulations affecting the use and occupancy of Subject Property.
- 9. City, State and County Taxes not yet due and payable, and any Taxes becoming due and payable in future times.
- 10 All past due utility bills and pay-as-you-enter utility bills including without limitation (gas water, electricity, telephone, sewer and sanitary services).
- 11. Losses, Claims or Damages resulting from Bankruptcy proceedings.
- All matters regarding federal truth-in-lending laws, real estate settlement procedures laws or other consumer legislation.
- 13. All items of personalty used in connection with or attached to the Subject Property, where not indexed upon the aforesaid real estate records.
- 14. Any matters affecting title not shown by the public records, including without limitation forgeries of documents or documents obtained through fraudulent means.
- 15. Riparian rights incident to Subject Property.
- 16. Loss or damage resulting from the exact location of U. S. Government property lines and or contour lines as well as flowage casements granted to the U. S. Government.
- 17. State and Federal environmental liens or encumbrances, where unrecorded or not properly indexed upon the Grantor/Grantee Indices.
- 18. The exact amount of acreage contained in Subject Property.
- 19. Any mineral, mining, oil or gas interests in, on and under Subject Property that are not revealed within the period of examination.
- 20. Whether Subject Property lies within "wetlands" as defined and governed by Federal, State or Local laws, rules or regulations.
- 21. Existence or absence of burial sites or archaeological sites that may affect Subject Property.
- 22. Matters filed pursuant to the provisions of the Uniform Commercial Code. (Applies only to Residential Property Title Examination).
- 23. This Title Certificate and Opinion is limited to names as they appear in the chain of title to Subject Property.

#### EXHIBIT "A"

#### PHASE 1 ROADS

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LAND LOTS 308 AND 309 OF THE 4<sup>TH</sup> DISTRICT, 1<sup>ST</sup> SECTION, CITY OF DAWSONVILLE, DAWSON COUNTY, GEORGIA, BEING KNOWN AS THE **"ROADS"** LOCATED IN RED HAWK RIDGE SUBDIVISION, PHASE 1, MORE PARTICULARLY DESCRIBED AS FOLLOWS: **RED HAWK DRIVE 50-FOOT R/W, KESTRAL COURT WEST 50-FOOT R/W, HARRIER DRIVE 50-FOOT R/W, KESTRAL COURT EAST 50-FOOT R/W, APLOMADO LANE WEST 50-FOOT R/W, APLOMADO LANE EAST 50-FOOT R/W, PEREGRINE LANE NORTH 50-FOOT R/W AND PEREGRINE LANE SOUTH, AS SHOWN ON A PLAT RECORDED IN PLAT BOOK 70, PAGES 235, 237, 239, 241 AND 243, DAWSON COUNTY, GEORGIA RECORDS, SAID PLAT IS INCORPORATED HEREIN AND MADE A PART HEREOF BY REFERENCE FOR A COMPLETE LEGAL DESCRIPTION.** 

#### <u>AND</u>

#### PHASE 2 ROADS

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LAND LOT 308 OF THE 4<sup>TH</sup> DISTRICT, 1<sup>ST</sup> SECTION, CITY OF DAWSONVILLE, DAWSON COUNTY, GEORGIA, BEING KNOWN AS THE **"ROADS"** LOCATED IN RED HAWK RIDGE SUBDIVISION, PHASE 2, MORE PARTICULARLY DESCRIBED AS FOLLOWS: **RED HAWK DRIVE 50-FOOT R/W, KESTRAL COURT EAST 50-FOOT R/W AND APLOMADO LANE EAST 50-FOOT R/W**, AS SHOWN ON A PLAT RECORDED IN PLAT BOOK 76, PAGES 41-45, DAWSON COUNTY, GEORGIA RECORDS, SAID PLAT IS INCORPORATED HEREIN AND MADE A PART HEREOF BY REFERENCE FOR A COMPLETE LEGAL DESCRIPTION.

<u>AND</u>

#### EXHIBIT "A", CONTINUED

#### PHASE 3 ROADS

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LAND LOT 308 OF THE 4<sup>TH</sup> DISTRICT, 1<sup>ST</sup> SECTION, CITY OF DAWSONVILLE, DAWSON COUNTY, GEORGIA, BEING KNOWN AS THE **"ROADS"** LOCATED IN RED HAWK RIDGE SUBDIVISION, PHASE 3, MORE PARTICULARLY DESCRIBED AS FOLLOWS: **APLOMADO LANE EAST 50-FOOT R/W**, AS SHOWN ON **A** PLAT RECORDED IN PLAT BOOK 82, PAGES 20-22, DAWSON COUNTY, GEORGIA RECORDS, SAID PLAT IS INCORPORATED HEREIN AND MADE A PART HEREOF BY REFERENCE FOR A COMPLETE LEGAL DESCRIPTION.

#### <u>AND</u>

#### PHASE 4 ROADS

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LAND LOT 308 OF THE 4<sup>TH</sup> DISTRICT, 1<sup>ST</sup> SECTION, CITY OF DAWSONVILLE, DAWSON COUNTY, GEORGIA, BEING KNOWN AS THE **"ROADS"** LOCATED IN RED HAWK RIDGE SUBDIVISION, PHASE 4, MORE PARTICULARLY DESCRIBED AS FOLLOWS: **RED HAWK DRIVE 50-FOOT R/W, HARRIER DRIVE 50-FOOT R/W, KESTRAL COURT EAST 50-FOOT R/W; SWAINSON STREET 50-FOOT R/W, PEREGRINE LANE NORTH 50-FOOT R/W AND PEREGRINE LANE SOUTH 50-FOOT R/W,** AS SHOWN ON A PLAT RECORDED IN PLAT BOOK 82, PAGES 24-27, DAWSON COUNTY, GEORGIA RECORDS, SAID PLAT IS INCORPORATED HEREIN AND MADE A PART HEREOF BY REFERENCE FOR A COMPLETE LEGAL DESCRIPTION.



#### DAWSONVILLE CITY COUNCIL EXECUTIVE SUMMARY FOR AGENDA ITEM #\_\_\_\_13\_\_\_\_

#### SUBJECT: UPDATE APPRAISAL FOR ELLIOTT FIELD AIRPORT PROPERTY

CITY COUNCIL MEETING DATE: 10/03/2022

BUDGET INFORMATION: GL ACCOUNT #\_\_\_\_\_

Funds Available from: \_\_\_\_\_ Annual Budget \_\_\_\_\_ Capital Budget Other\_\_\_\_\_

☑ Budget Amendment Request from Reserve: \_\_\_\_Enterprise Fund \_\_\_\_General Fund

#### PURPOSE FOR REQUEST:

TO REQUEST APPROVAL FOR AN UPDATED AIRPORT APPRAISAL NOT TO EXCEED \$22,000.00 TO ASCERTAIN THE CURRENT VALUE OF THE REAL ESTATE AND FACILITIES IN PLACE TO AID EFFORTS TO SEEK FUNDING BY GRANT AND OTHER MEANS.

FUNDS WILL MOST LIKELY COME OUT OF GENERAL FUND RESERVES.

HISTORY/ FACTS / ISSUES:

THE LAST AIRPORT APPRAISAL UPDATE WAS IN 2019. VALUE OF LAND HAS MOST LIKELY INCREASED AND THERE ARE MORE HANGARS THAT HAVE BEEN ADDED.

**OPTIONS**:

RECOMMENDED SAMPLE MOTION:

MOTION TO AUTHORIZE STAFF TO PURSUE THE UPDATED APPRAISAL AT A COST NOT TO EXCEED \$22,000.00.

REQUESTED BY: Bob Bolz, City Manager



#### SUBJECT: <u>AWARD BIDS – PICKLEBALL AND BASKETBALL COURTS FOR MAIN STREET</u> <u>PARK</u>

CITY COUNCIL MEETING DATE: 10/03/2022

BUDGET INFORMATION: GL ACCOUNT #\_\_\_\_\_

Funds Available from: \_\_\_\_\_ Annual Budget \_\_\_\_\_ Capital Budget Other SPLOST VII

Budget Amendment Request from Reserve: \_\_\_\_\_Enterprise Fund \_\_\_\_\_General Fund

#### PURPOSE FOR REQUEST:

TO REQUEST APPROVAL TO DIRECT STAFF TO MOVE FORWARD WITH ENGINEERING OF THE PICKLEBALL AND BASKETBALL COURTS AND TO BID OUT THE GRADING FOR THE COURTS AND TO AWARD RFP #2023-03 AND RFP #2023-04 TO SIGNATURE TENNIS COURTS, INC. IN THE AMOUNT OF \$140,148.00. THESE FUNDS ARE BUDGETED IN THE FY 2023 SPLOST VII FUND

#### HISTORY/ FACTS / ISSUES:

- REQUEST FOR PROPOSALS WERE ADVERTISED AND RETURNED ON 09/01/2022
- CITY ONLY RECEIVED ONE RESPONSE FOR OPTION #1 TO BID BOTH PICKLEBALL COURTS AND BASKETBALL COURTS TOGETHER
- ENGINEERING FOR BOTH COURTS WILL BE PROVIDED BY CIVIL ENGINEERING CONSULTANTS, INC. NOT TO EXCEED \$13,500.00
- GRADING FOR BOTH COURTS WILL NEED TO BE BID OUT; THE COST IS ESTIMATED AT
   \$50,000.00 TO GRADE BOTH COURTS

#### OPTIONS:

AWARD RFP TO SIGNATURE TENNIS COURTS, INC.FOR THE CONSTRUCTION OF FOUR (4) NEW PICKLEBALL COURTS WITH LIGHTING SYSTEM AND CONSTRUCTION OF A BASKETBALL COURT WITH FENCING FOR A TOTAL OF \$140,148.00

### APPROVE DIRECTING STAFF TO MOVE FORWARD WITH ENGINEERING AND BIDDING OUT THE GRADING

REQUESTED BY: Trampas Hansard, Public Works Director



PHONE: 404-642-5002 FAX: 770-516-0916 MIKE@SIGNATURETENNIS.COM



August 29, 2022

Signature Tennis Courts, Inc., is proposing to build 2 or 4 pickle ball courts and one basketball court at the Main Street Park, located in Dawsonville, Georgia.

ES

Signature Tennis Courts, Inc., intends to complete this project in the manner in which the expectations of our client are exceeded, according to the specifications included in this request for proposal.

The total cost of the proposed construction projects are listed below and are included in the attached quotes. Construction of Main Street Park Pickle Ball Courts – 2 pickle ball courts - \$46,948 Option to build 4 pickle ball courts - \$60,948 Option to install LED lights - \$23,400 Construction of Main Street Basketball court - \$38,900 Option to install fencing - \$16,900

\*\* If both projects are selected and done at the same time, Signature Tennis will apply a 5% discount to the total of the project\*\*

*This request for proposals 2023-03 and 2303-04, is presented by Signature Tennis Courts, Inc and to the best of my knowledge is accurate.* 

Mike Imbornone CTCB, Owner

Signature Tennis Courts, Inc. 1025 Rose Creek Drive Suite 620-244 Woodstock, Ga 30189 Phone 404-642-5002 Fax 770-516-0916

Original

#### VI. BID SCHEDULE (This page is to be sent in a separate sealed envelope)

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A. For furnishing all labor, materials and equipment necessary to construct two (2) new pickleball courts totaling sixty by sixty-four feet (60' X 64")

See BID SCHEDULE: Courts as specified and as described herein. *Include additional line items and amounts as necessary.* 

	RFP #20	)23-03			
	Construction of Main Stree	et Park Pi	ckleba	ll Courts	;
ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT AMOUNT	AMOUNT
0001	Haul and place 4" of crusher run with laser grader	3840 SF	1.30		4,992
0002	Roll crusher run when moist until compacted. Test to verify proper compaction				2,006
0003	Apply 2" fine topping asphalt	38405F	3.38		12,979
0004	Install 4' high black vinyl coated fence with 9 gauge wire, 3" terminal posts, 2 ½" line posts, gates and hardware as necessary around perimeter of courts	248LF			13,888
0005	Install 4 net post foundations	4	1,000		4,000
0006	Flood courts with water to check for planarity and to identify low areas (birdbaths) and correct as needed according to U.S. court specifications				500
0007	Apply 2 coats of black and 2 coats of ACRYTECH colored full acrylic playing surface (color selected by owner)	3840SF	1-82		6989
8000	Stripe 2 pickleball courts with one coat of primer and two coats of texturized white line paint	2	400		800
0009	Install new net posts, new pickleball nets and center straps				800
0010					
0011					
0012		 			
				TOTAL	46,948
f pì	uleball propert and Basket	ball pr	vi'ect	4-	
f Pi Ire	done at the same time	ball pr	oj'eci e tau		46,

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT AMOUNT	AMOUNT
	ΟΡΤΙΟ	DN #1			
0013	Construct four (4) new pickleball courts with same specifications as above				60,948
				TOTAL	60,948
	ΟΡΤΙΟ	ON #2			
0014	Install a 4-pole/4-fixture 560-watt SCIMITAR LED lighting system				23,400
				TOTAL	23,400

<u>Questions:</u> For all questions, clarifications, further information should be directed to the Public Works Director at trampas.hansard@dawsonville-ga.gov or 706-541-6454.

#### VII. BIDDERS RESPONSE:

#### RFP #2023-03

The undersigned agrees, if this bid is accepted within sixty (60) calendar days after date of opening, to furnish all supplies or services in strict accordance with provisions of this Invitation for Bid at the price in the Bid Schedule.

Prices to remain firm for sixty (60) calendar days or	60	calendar days after date of opening.
Vendor must initial here if he changes the 60-day req	uirement:	

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a bid for the same supplies or services and is in all respects fair and without collusion or fraud. I understand that collusive bidding is a violation of state and federal law and can result in fines, prison sentences, and civil damage awards. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the bidder.

#### Bids not signed must be declared as "non-responsive" and not considered for award.

Signature:	Title: Owner
Printed Name: Milly Imbornone	

Original

#### VI. BID SCHEDULE (This page is to be sent in a separate sealed envelope)

A. For furnishing all labor, materials and equipment necessary to construct one (1) new basketball court totaling fifty by eighty feet (50' X 80')

See BID SCHEDULE: Courts as specified and as described herein. *Include additional line items and amounts as necessary.* 

	BID SCH	EDULE			
	RFP #20	023-04			
Construction of Main Street Park Basketball Court					
ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	Unit Amount	AMOUNT
0001	Haul and place 4" of crusher run with laser grader	4000SF	1.30		5,200
0002	Roll crusher run when moist until compacted. Test to verify proper compaction				2,000
0003	Apply 2" fine topping asphalt	YDOOSF	338		13,520
0004	Install two (2) new Endurance basketball systems	4200	2		9,600
0005	Flood courts with water to check for planarity and to identify low areas (birdbaths) and correct as needed according to U.S. court specifications				500
0006	Apply 2 coats of black and 2 coats of ACRYTECH colored full acrylic playing surface (color selected by owner)	4000sf	1.92		7,280
0007	Stripe basketball court with one coat of primer and two coats of texturized white line paint				800
8000					
0009					
0010					
0011					
0012				TOTAL	38,900

\* IF Basketball Court and Pickle Ball courts are done at the Sametime, prease take a 5% discount.

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT AMOUNT	AMOUNT
	ΟΡΤΙΟ	DN #1			
0013	Install 10' high black vinyl coated 9- gauge wire, powder coated 3" terminal posts, 2 1/2" line posts and hardware as necessary	260LF	65		16,900
				TOTAL	16,900

<u>Questions:</u> For all questions, clarifications, further information should be directed to the Public Works Director at trampas.hansard@dawsonville-ga.gov or 706-541-6454.

#### VII. BIDDERS RESPONSE:

Date of Bid: 0-1-2022

#### RFP #2023-04

The undersigned agrees, if this bid is accepted within sixty (60) calendar days after date of opening, to furnish all supplies or services in strict accordance with provisions of this Invitation for Bid at the price in the Bid Schedule.

Prices to remain firm for sixty (60) calendar days or	60	calendar days after date of opening.
Vendor must initial here if he changes the 60-day req	uirement:	

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a bid for the same supplies or services and is in all respects fair and without collusion or fraud. I understand that collusive bidding is a violation of state and federal law and can result in fines, prison sentences, and civil damage awards. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the bidder.

Bids not signed must be declared as "non-responsive" and not considered for award.

Signature: A'/	Title: Owner	
Printed Name: Mille Imbornone		



September 26, 2021

Mr. Bob Bolz City Manager City of Dawsonville 415 Highway 53 East, Suite 100 Dawsonville, GA

RE: Proposal for Main Street Park Improvements - City of Dawsonville, Georgia

Dear Mr. Bolz:

Civil Engineering Consultants, Inc. (CEC) is pleased to offer this Proposal for providing Professional Consulting Services for the Main Street Park Improvements.

I am proposing an hourly basis Not-To-Exceed fee of \$13,500 to develop the plans and specifications for the park improvements. The improvements will include four pickleball courts and a basketball court. CEC will perform a drone field survey of existing conditions and provide the necessary permit coordination required for a land disturbing permit.

Our Scope of Work includes the following:

1. Park Drone Survey – Prepare working base plan drawing including site topography for park improvements.

Fee: \$4,500 Lump Sum

2. Park Improvements Design – Prepare working drawings for park improvements. Provide a layout and site grading plans.

Fee: \$5,000 Lump Sum

3. Land disturbance Permitting and Coordination – The site disturbed acreage is expected to be less than an acre but the pickleball courts appear to be within 200ft of state waters. Submit plans and engineering calculations to City of Dawsonville and the NRCS, if required, for review and approval. Leg work and meetings with City to get design approved and obtain a Land Disturbance Permit for the park improvements.

Fee: \$2,000 Hourly Not to Exceed

4. Soils Investigation – To ensure proper subgrade conditions exist a soils investigation is recommended.

Fee: \$2,000 Hourly Not to Exceed

Mr. Bob Bolz September 26, 2022 Page 2 of 2

You may accept this Proposal by filling out our Agreement for Limited Professional Services and signing and dating in the space provided below and returning one copy to me. Please call with any questions.

Very truly yours, CIVIL ENGINEERING CONSULTANTS, Inc.

Certas Re Longis

Andrew E. Lovejoy, P.E. President

S:\22097 - CEC Proposals\City of Dawsonville\Bob Bolz - Park Improvements.docx

#### CIVIL ENGINEERING CONSULTANTS, INC. AGREEMENT FOR LIMITED PROFESSIONAL SERVICES

Project Name:	Main Street Park Im	provements					
Project Location	: <u>Main Street, City of</u>	Main Street, City of Dawsonville, Georgia					
Proposal Date:	oposal Date: September 26, 2021						
Description of S	Description of Services: Design Engineering Services for Sidewalk Improvements						
Financial Consid	inancial Considerations: <u>\$13,500 Hourly Not-To-Exceed</u>						
FOR PAYM	ENT OF CHARGES						
Charge Invoice t	to the Account of:						
Firm:							
Address	s:						
Attentio	on:						
Phone:		Fax:					
FOR APPRO	OVAL OF CHARGES						
If the invoice is	to be mailed for approval to someo	e other than the account charged, please indicate in the space below:					
Firm:							
Addres	5:						
Attentio							
Phone:							
		provisions:					
This Agreemen	t together with Civil Engineerin	g Consultants' Standard Contract Conditions constitute the entire Consultants and supersedes all prior written or oral understandings.					
OFFERED BY:	:	ACCEPTED BY:					
Civil Engineeri	ng Consultants, Inc.	Client:					
Signature:	Cinden R Lovers	Signature:					
Date:	September 26, 2022	Date:					
Printed Name:	Andrew E. Lovejoy, P.E.	Printed Name:					

 Title:
 President

#### CIVIL ENGINEERING CONSULTANTS, Inc.

#### STANDARD CONTRACT CONDITIONS

<u>PERSONNEL CHARGES</u> - Compensation for our professional services is based upon and measured by the following elements: the quoted rates include direct salary, payroll taxes, insurance incident to employment, holidays, sick leave, vacation, general office overhead and profit.

Time spent in either local or inter-city travel, when travel is in the interest of the work, will be charged in accordance with the attached schedule. When traveling by public carrier, a maximum charge of eight (8) hours per day will be made.

Should overtime rates be required, the hourly rates for personnel will be multiplied by 1.30. Overtime is time in excess of eight (8) hours per day and Saturdays, Sundays or holidays. Overtime will be worked only with prior approval.

OTHER SERVICES AND SUPPLIES - Charges for services, equipment, and facilities not furnished directly by CIVIL ENGINEERING CONSULTANTS, Inc., are to be paid directly to the provider with no mark-up by CIVIL ENGINEERING CONSULTANTS, Inc. Subcontracts paid by CIVIL ENGINEERING CONSULTANTS, Inc. Subcontracts paid by CIVIL ENGINEERING CONSULTANTS, Inc. will have a surcharge of 15% added to them. Reimbursable expenses are in addition to Lump Sum Fee proposed for Basic Services and include, but are not limited to the following: long distance telephone calls, courier services, reproduction, postage and handling of reports and drawings and specifications.

<u>BILLING</u> - Monthly statements will be issued for work completed to date and will be based on the Engineer's estimate of the percentage of completion, or the hours worked, depending upon the method of contracting. Payment is expected within fifteen (15) days of receipt of the invoice. We would add 1-1/2 percent, per month, to any past due amounts.

<u>WARRANTY AND LIABILITY</u> - CIVIL ENGINEERING CONSULTANTS, Inc. warrants that our services are performed, within the limits prescribed by the Client, with the usual thoroughness and competence of the engineering profession. No other warranty or representation, either expressed or implied, is included or intended in our proposal, contracts, reports or drawings.

For any damage on account of any error, omission, or other professional negligence, our liability will be limited to a sum not to exceed \$50,000, or our fee, whichever is less. In the event that the Client does not wish to limit our professional liability to this sum, we will increase this limitation to \$1,000,000 upon the Client's written request, provided that the Client agrees to pay for this increase an additional consideration of 15% of our fee.

#### CIVIL ENGINEERING CONSULTANTS, Inc.

#### STANDARD CONTRACT CONDITIONS

(Continued)

#### WARRANTY AND LIABILITY - (Continued)

In the event the Client makes a claim against CIVIL ENGINEERING CONSULTANTS, Inc., at law or otherwise, for any alleged error, omission or other act arising out of the performance of our professional services, and the Client fails to prove such claim, then the Client shall pay all costs incurred by CIVIL ENGINEERING CONSULTANTS, Inc. in defending itself against the claim.

#### CIVIL ENGINEERING CONSULTANTS, Inc.

#### 2022 FEE SCHEDULE

#### FOR

#### **ENGINEERING SERVICES**

#### **ENGINEERING SERVICES:**

Principal Engineer	\$180.00 per hour
Senior Design Engineer	\$165.00 per hour
Project Manager	\$165.00 per hour
Project Engineer	\$125.00 per hour

#### **ENGINEERING DRAFTING:**

Senior CAD Specialist	\$90.00 per hour
CAD Specialist	\$80.00 per hour
Intern	\$50.00 per hour

#### **GEOGRAPHIC INFORMATION SYSTEMS:**

Senior GIS Analyst

\$125.00 per hour

#### **SURVEYING SERVICES:**

Surveyor, RLS Survey Technician \$135.00 per hour \$60.00 per hour

#### ADMINISTRATIVE:

Contract Administrator Office Manager \$80.00 per hour \$80.00 per hour

#### PRINTING:

Xerox Copies (In House) Outside Printing & Copying Services

<u>SUBCONTRACT SERVICES</u>: <u>MILEAGE</u>: \$0.25 each Cost Plus 15%

Cost Plus 15% \$0.60/mile

#### MAIN STREET PARK IMPROVEMENTS

ITEM	DESCRIPTION	UNIT	QTY	PRICE AMC		MOUNT
1	Sitework/Grading	LS	1	\$ 40,000.00	\$	40,000.00
2	Erosion Control	LS	1	\$ 10,000.00	\$	10,000.00

#### MAIN STREET PARK PROJECT COST

\$ 50,000.00

Estimate 09/26/2022 by Civil Engineering Consultants, Inc.

