

Transportation Analysis

THE HEIGHTS AT SANDY SPRINGS DRI #2419 Sandy Springs, Georgia

Prepared for:

**The Providence Group
The Worthing Companies**

Prepared by:

Kimley-Horn and Associates, Inc.
2 Sun Court, Suite 450
Peachtree Corners, Georgia 30092

Kimley»»Horn

©Kimley-Horn and Associates, Inc.
July 2014
019686005

TABLE OF CONTENTS

1.0	Project Description	1
1.1	Introduction.....	1
1.2	Site Plan Review.....	1
1.3	Site Access.....	1
1.4	Bicycle and Pedestrian Facilities.....	2
1.5	Transit Facilities.....	2
2.0	Traffic Analyses Methodology and Assumptions.....	2
2.1	Growth Rate	2
2.2	Traffic Data Collection.....	2
2.3	Detailed Intersection Analysis.....	3
3.0	Study Network	4
3.1	Gross Trip Generation.....	4
3.2	Trip Distribution.....	4
3.3	Level-of-Service Standards.....	4
3.4	Study Network Determination	4
3.5	Existing Facilities	5
4.0	Trip Generation.....	5
5.0	Trip Distribution and Assignment.....	6
6.0	Traffic Analysis	6
6.1	Existing 2014 Conditions.....	6
6.2	Projected 2017 No-Build Conditions.....	7
6.3	Projected 2017 Build Conditions	8
7.0	Ingress/Egress Analysis	9
8.0	Identification of Programmed Projects	10
9.0	Internal Circulation Analysis	12
10.0	Compliance with Comprehensive Plan Analysis	12
11.0	Non-Expedited Criteria	12
11.1	Vehicle Miles of Travel	12
11.2	Transportation and Traffic Analysis.....	12
11.2.1	Planned and Programmed Improvements	12
11.2.2	Preserving Regional Mobility.....	12
11.2.3	Safe and Efficient Operations.....	13
11.2.4	Minimize Congestion.....	13
11.3	Relationship of Existing Development and Infrastructure	13

LIST OF TABLES**On Page**

Table 1:	Proposed Land Uses	1
Table 2:	Peak Hour Summary	3
Table 3:	Gross Trip Generation	4
Table 4:	Intersection Control Summary.....	5
Table 5:	Roadway Classification.....	5
Table 6:	Net Trip Generation	6
Table 7:	Existing 2014 Intersection Levels-of-Service.....	7
Table 8:	Projected 2017 No-Build Intersection Levels-of-Service.....	8
Table 9:	Projected 2017 Build Intersection Levels-of-Service	8
Table 10:	Projected 2017 Build Intersection Levels-of-Service IMPROVED	9
Table 11:	Build 2017 Intersection Levels-of-Service – Site Driveway.....	10
Table 12:	Programmed Improvement Projects.....	11
Table 13:	Vehicle Mile Reductions.....	12

LIST OF FIGURES**Following Page**

Figure 1:	Site Location.....	1
Figure 2:	Site Aerial Photograph Zoomed-Out	1
Figure 3:	Site Aerial Photograph Zoomed-In	1
Figure 4:	The Heights at Sandy Springs DRI Site Plan	1
Figure 5:	Study Intersections	6
Figure 6:	Traffic Distribution on Map	6
Figure 7:	Traffic Distribution and Assignment	6
Figure 8:	Project Trips	6
Figure 9:	Existing 2014 Conditions	6
Figure 10:	Projected 2017 No-Build Conditions	7
Figure 11:	Projected 2017 Build Conditions	8
Figure 12:	Programmed Improvement Projects.....	10

APPENDIX

Appendix A – Land Use Maps

Appendix B – MARTA Bus Routes

Appendix C – Site Photographs

Appendix D – Trip Generation Analyses

Appendix E – Intersection Volume Worksheets

Appendix F – DRI #2290 Signal and Lane Configuration

Appendix G – DRI #2290 Project Trips

Available Upon Request

Raw Traffic Counts (Peak Hour Turning Movements)

Synchro Capacity Analyses – Existing 2014 Conditions

Synchro Capacity Analyses – Projected 2017 No-Build Conditions

Synchro Capacity Analyses – Projected 2017 Build Conditions

Synchro Capacity Analyses – Projected 2017 Build IMPROVED Conditions

Programmed Transportation Improvements – Project Fact Sheets

EXECUTIVE SUMMARY

This report presents the analysis of the anticipated traffic impacts associated with The Heights at Sandy Springs, a proposed approximate 17.893-acre residential development comprised of 542 residential units (173 townhomes and 369 apartments). The development is located in the southeast quadrant of SR 9 (Roswell Road) and Franklin Road in the City of Sandy Springs, Georgia. This project is a residential development exceeding 500 dwelling units; therefore, the proposed development is considered a Development of Regional Impact (DRI) and is subject to Georgia Regional Transportation Authority (GRTA) and Atlanta Regional Commission (ARC) review. This document is being submitted under DRI non-expedited review.

The development is scheduled to be completed by 2017, and this analysis will consider the full build-out of the proposed site in 2017. The proposed development will require a rezoning with the City of Sandy Springs and is proposed to be changed to an Apartment Limited Dwelling District (A-L). The property is currently a residential apartment tract which is zoned to the Apartment Dwelling District (A-1) classification according to the Official Sandy Springs Zoning Map. The applicant intends to develop a residential community consisting of 542 units. According to ARC's PLAN 2040 Unified Growth Policy Map, the project site is proposed to be developed in the Maturing Neighborhoods. It should be noted that approximately 312 residential units on site will be demolished with the construction of the proposed development.

The proposed development will consist of the following land use and density:

Residential Apartments: 542 Dwelling Units (369 apartments and 173 townhomes)

Capacity analyses were performed for the Existing 2014 conditions, projected 2017 No-Build conditions, and projected 2017 Build conditions at four (4) intersections and four (4) site driveways.

- Existing 2014 conditions represent traffic volumes that were collected in May 2014 by performing AM and PM peak hour turning movement counts.
- Projected 2017 No-Build conditions represent the existing traffic volumes grown for three (3) years at 2.0% per year, plus the projected additional trips due to the development of DRI #2290 Chastain Mixed Use, throughout the study network.
- Projected 2017 Build conditions represent the projected 2017 No-Build conditions with the addition of project trips that are anticipated to be generated by The Heights at Sandy Springs residential development.
- The Heights at Sandy Springs development is projected to generate 3,396 gross daily trips / 3,328 net daily trips (the analysis assumed no mixed-use or pass-by reductions, but did include alternate mode reductions for the proposed development). Note: The decrease in traffic associated with the demolition of approximately 312 existing apartment units results in a reduction of 2,014 daily trips (results in 1,314 additional trips).

Project T-0045 (See *Table 12*, Project #15) was taken into consideration for our analysis. The signalized intersection of SR 9 (Roswell Road) @ Windsor Parkway (Intersection #1) is currently planned to be realigned. According to the City of Sandy Springs, this project is fully funded and design is underway, with construction scheduled to begin in late 2014. For this report, we analyzed the intersection of SR 9 (Roswell Road) @ Windsor Parkway as it currently exists for Existing 2014 conditions, and realigned for Projected 2017 No-Build, Build, and Build-Improved conditions.

The results of the detailed intersection analysis for the various conditions identified improvements that will be necessary in order to obtain the Level-of-Service standard within the study network. Per GRTA's Letter of Understanding guidelines, improvements were made to the intersections until the LOS was elevated to the appropriate range. These improvements are listed on the following page:

Based on the Existing 2014 conditions (present conditions; i.e. excludes background traffic growth, DRI #2290 Chastain Mixed Use project traffic, and The Heights at Sandy Springs project traffic), one (1) intersection within the study network currently operates below the acceptable Level-of-Service standard (LOS D) during the PM peak hour. This intersection's No-Build and Build PM Peak Hour LOS standard, therefore, is LOS E per GRTA guidelines.

Based on the GRTA Notice of Decision for DRI #2290 Chastain Mixed Use, one study intersection will be improved between the Existing 2014 conditions and the projected 2017 No-Build conditions. The following improvements are in process (City of Sandy Springs Project T-0045), and were thus inputted into Synchro 8.0 for the projected 2017 No-Build conditions and carried forward throughout all subsequent analysis.

- SR 9 (Roswell Road) @ Windsor Parkway (Intersection #1):
 - Convert the westbound approach from one shared through-left lane and one right-turn lane to two exclusive left-turn lanes and one shared through-right lane.

Based on the build out of DRI #2290 Chastain Mixed Use, an eastbound approach will be added to the intersection of SR 9 (Roswell Road) @ Windsor Parkway (Intersection #1), to serve as a site driveway. The improvements will consist of:

- Construct an eastbound left-turn lane and shared through-right-turn lane.
- Convert the existing southbound shared through-right-turn lane into an exclusive through lane and construct an exclusive right-turn lane.

Based on the projected 2017 No-Build conditions (includes background traffic growth plus DRI #2290 Chastain Mixed Use projected project traffic, but excludes The Heights at Sandy Springs project traffic), no additional recommended improvements were identified in order to maintain an acceptable Level-of-Service standard during the AM and/or PM peak hour at all intersections within the study network.

Based on the projected 2017 Build conditions (includes background traffic growth, DRI #2290 Chastain Mixed Use projected project traffic, and The Heights at Sandy Springs project traffic), the following intersection improvements are recommended:

- SR 9 (Roswell Road) @ Franklin Road (Intersection #2):
 - Install a traffic signal (Note: Meets signal warrants under Existing Conditions).
 - Add a northbound right-turn lane along SR 9 (Roswell Road)
- Site Driveway #1 @ SR 9 (Roswell Road):
 - Install a northbound right-turn lane along SR 9 (Roswell Road).
 - Construct a westbound right-turn lane and left-turn lane exiting the proposed development.

1.0 PROJECT DESCRIPTION

1.1 Introduction

This report presents the analysis of the anticipated traffic impacts associated with the proposed The Heights at Sandy Springs development site on approximately 17.893 acres. This report is being prepared as part of a submittal requesting a rezoning with the City of Sandy Springs to Apartment Limited Dwelling District (A-L). This project is a proposed residential development exceeding 500 dwelling units; therefore, the proposed development is considered a Development of Regional Impact (DRI) and is subject to Georgia Regional Transportation Authority (GRTA) and Atlanta Regional Commission (ARC) review. This document is being submitted under DRI non-expedited review. The scope of this Transportation Analysis is consistent with the meeting held at ARC's office on June 2, 2014 and GRTA's Letter of Understanding dated June 16, 2014.

The development is scheduled to be completed by 2017, and this analysis will consider the full build-out of the proposed site in 2017. The proposed development is located in the southeast quadrant of SR 9 (Roswell Road) and Franklin Road in the City of Sandy Springs, Georgia. A summary of the proposed land uses and densities is provided below in **Table 1**.

Table 1 The Heights at Sandy Springs DRI Proposed Land Uses	
Apartment	369 Dwelling Units
Townhouse	173 Dwelling Units

Figure 1, **Figure 2**, and **Figure 3** provide a location map and aerial photographs of the site.

1.2 Site Plan Review

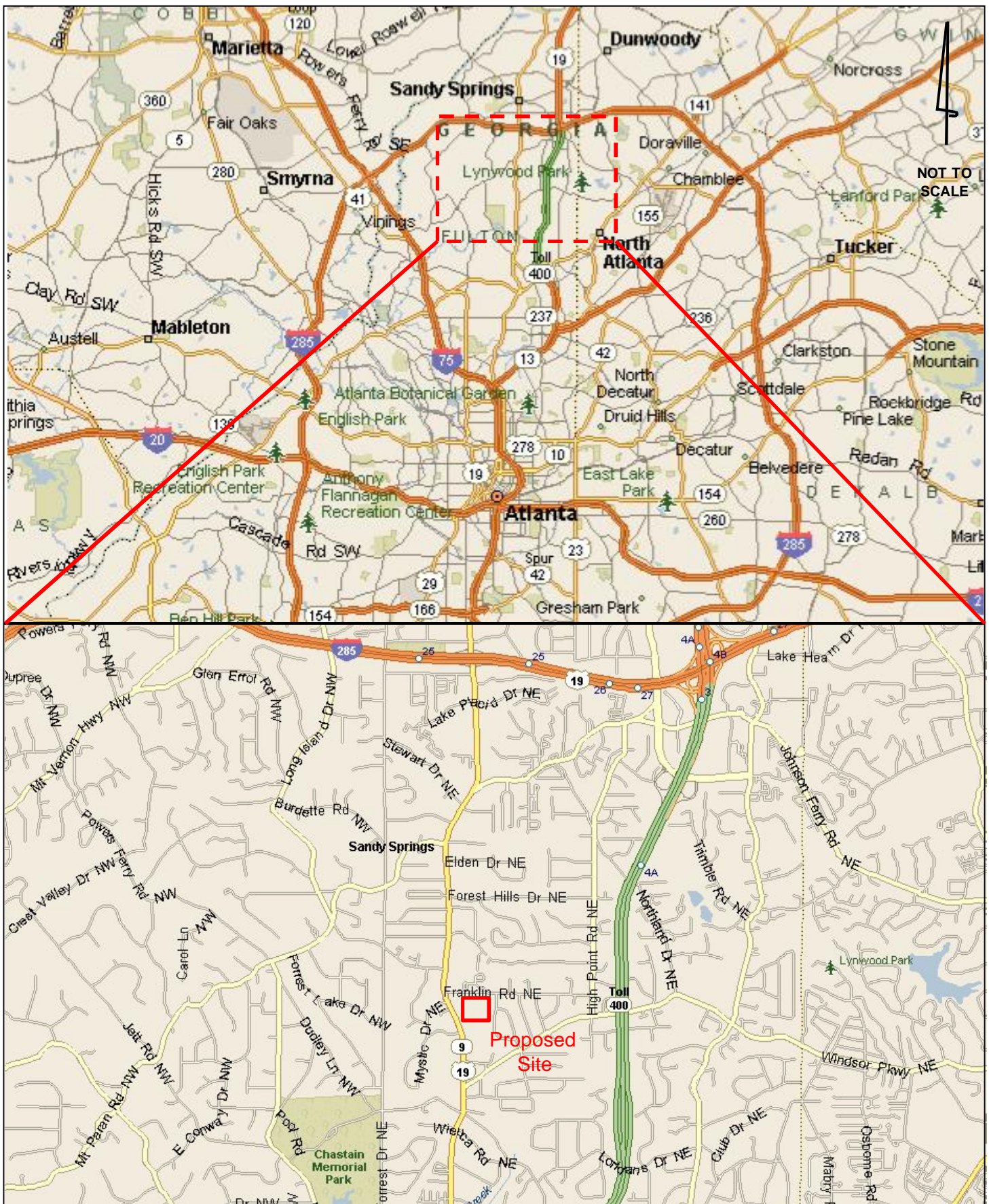
The proposed development is approximately a 17.893-acre residential development comprised of the apartment and townhouse dwellings land uses. The development is located in the southeast quadrant of SR 9 (Roswell Road) and Franklin Road in the City of Sandy Springs, Georgia. According to ARC's PLAN 2040 Unified Growth Policy Map, the project site is proposed to be developed in the Maturing Neighborhoods. The proposed development will require a rezoning with the City of Sandy Springs and is proposed to be changed from Apartment Dwelling District (A-1) to an Apartment Limited Dwelling District (A-L). The development will consist of the demolition of approximately 312 residential units and the construction of approximately 542 residential units (173 townhomes and 369 apartment units), for a net increase of 230 units.

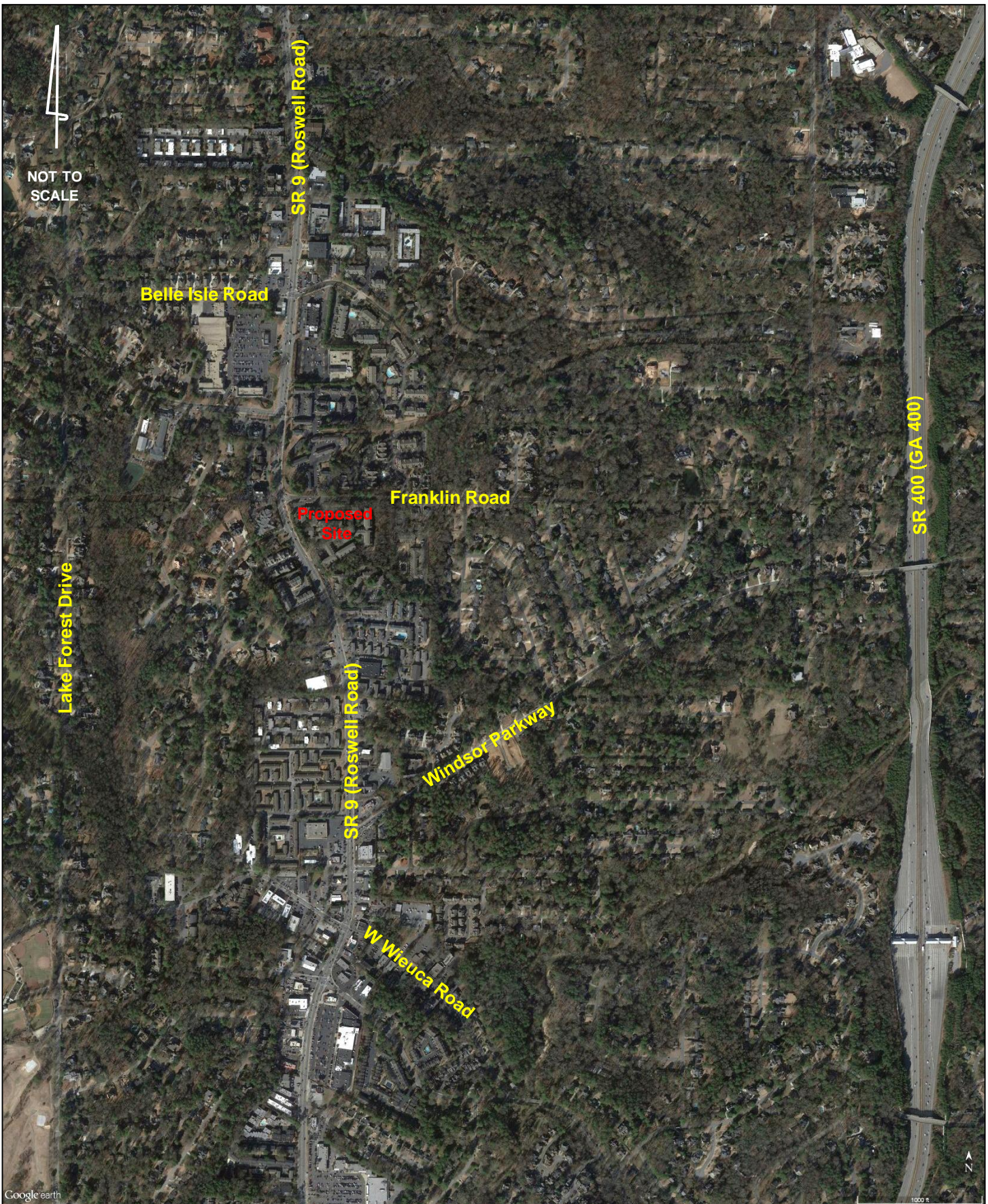
Figure 4 is a small-scale copy of the DRI site plan. A full-size site plan consistent with the GRTA Site Plan Guidelines is also being submitted as part of the DRI Review Package. Land use maps for the City of Sandy Springs and ARC's Plan 2040 are provided in **Appendix A**.

1.3 Site Access

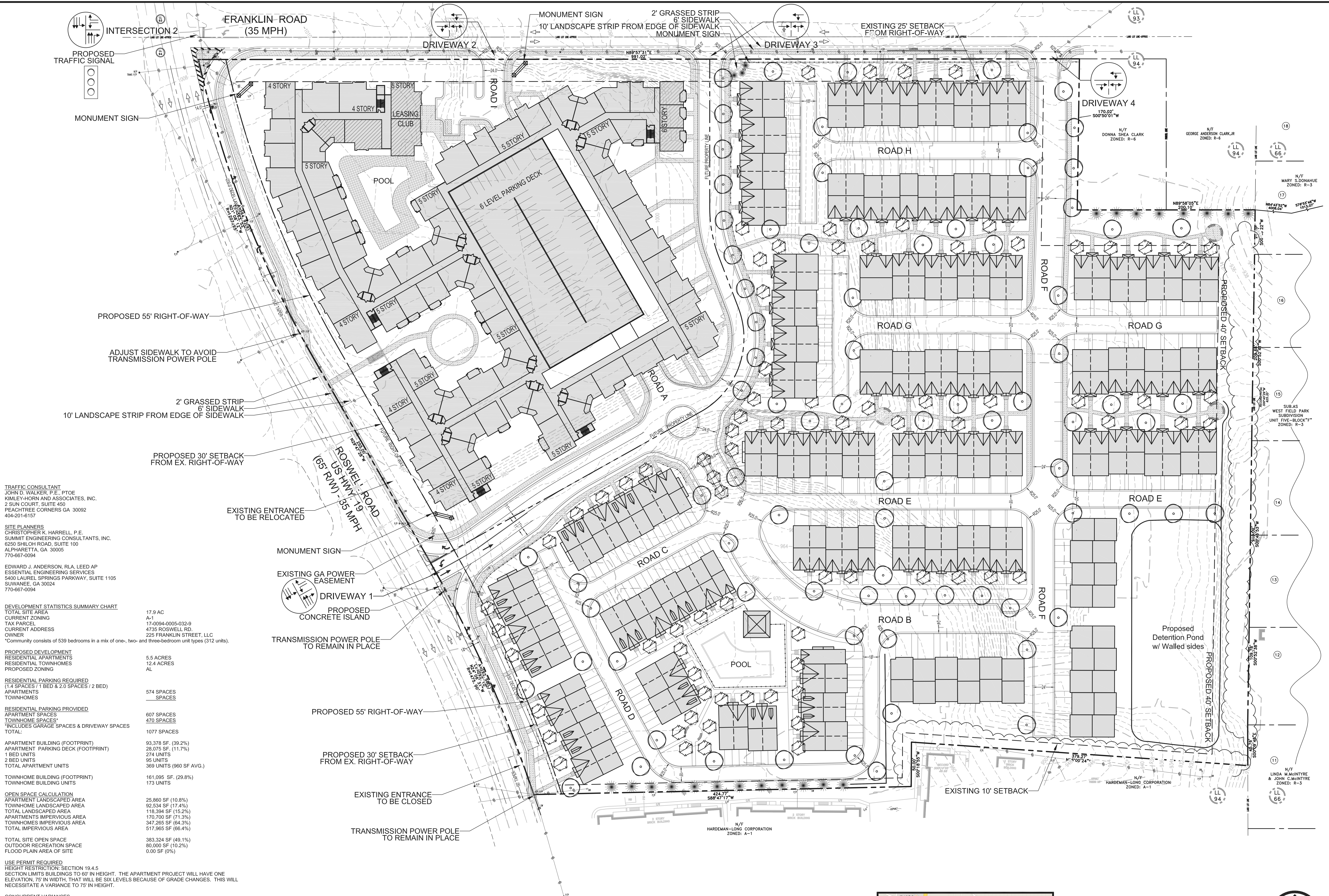
Current site access for the existing approximately 312 apartment units is provided by four (4) site driveways, with two (2) along SR 9 (Roswell Road) and two (2) along Franklin Road. With The Heights at Sandy Springs development site access is proposed at four (4) locations. The two (2) driveways along SR 9 (Roswell Road) will be consolidated to create one new full-movement site driveway, and three (3) full-movement site driveways are proposed along Franklin Road. Photographs of the SR 9 (Roswell Road) and Franklin Road approaches to the proposed site driveway locations are provided in **Appendix C**.

The proposed site driveways mentioned above provide access to the entire proposed development. Internal roadways throughout the site will provide access to all lots. **Figure 4** depicts a visual representation of the driveway locations described above as well as access throughout the proposed development.









TRAFFIC CONSULTANT
JOHN D. WALKER, P.E., PTOE
KIMLEY-HORN AND ASSOCIATES, INC.
2 SUN COURT, SUITE 450
PEACHTREE CORNERS GA 30092
404-201-6157

SITE PLANNERS
CHRISTOPHER K. HARRELL, P.E.
SUMMIT ENGINEERING CONSULTANTS, INC.
6250 SHILOH ROAD, SUITE 100
ALPHARETTA, GA 30005
770-667-0094

EDWARD J. ANDERSON, R.L.A. LEED AP
ESSENTIAL ENGINEERING SERVICES
5400 LAUREL SPRINGS PARKWAY, SUITE 1105
SUWANEE, GA 30024
770-667-0094

DEVELOPMENT STATISTICS SUMMARY CHART	
TOTAL SITE AREA	17.9 AC
CURRENT ZONING	A-1
TAX PARCEL	17-0094-0005-032-8
CURRENT ADDRESS	4735 ROSWELL RD.
OWNER	225 FRANKLIN STREET, LLC
*Community consists of 539 bedrooms in a mix of one-, two- and three-bedroom unit types (312 units).	
PROPOSED DEVELOPMENT	
RESIDENTIAL APARTMENTS	5.5 ACRES
RESIDENTIAL TOWNHOMES	12.4 ACRES
PROPOSED ZONING	AL
RESIDENTIAL PARKING REQUIRED (1.4 SPACES / 1 BED & 2.0 SPACES / 2 BED)	
APARTMENTS	574 SPACES
TOWNHOMES	SPACES
RESIDENTIAL PARKING PROVIDED	
APARTMENT SPACES	607 SPACES
TOWNHOME SPACES	470 SPACES
*INCLUDES GARAGE SPACES & DRIVEWAY SPACES	
TOTAL:	1077 SPACES
APARTMENT BUILDING (FOOTPRINT)	
APARTMENT PARKING DECK (FOOTPRINT)	93,378 SF, (39.2%)
1 BED UNITS	28,075 SF, (11.7%)
2 BED UNITS	274 UNITS
95 UNITS	
TOTAL APARTMENT UNITS	369 UNITS (960 SF AVG.)
TOWNHOME BUILDING (FOOTPRINT)	
TOWNHOME BUILDING UNITS	161,095 SF, (29.8%)
173 UNITS	
OPEN SPACE CALCULATION	
APARTMENT LANDSCAPED AREA	25,860 SF (10.8%)
TOWNHOME LANDSCAPED AREA	92,534 SF (17.4%)
TOTAL LANDSCAPED AREA	118,394 SF (15.2%)
APARTMENTS IMPERVIOUS AREA	170,700 SF (71.3%)
TOWNHOMES IMPERVIOUS AREA	347,265 SF (64.3%)
TOTAL IMPERVIOUS AREA	517,965 SF (66.4%)
TOTAL SITE OPEN SPACE	
OUTDOOR RECREATION SPACE	383,324 SF (49.1%)
FLOOD PLAIN AREA OF SITE	80,000 SF (10.2%)
	0.00 SF (0%)

USE PERMIT REQUIRED
HEIGHT RESTRICTION: SECTION 19.4.5
SECTION LIMITS BUILDINGS TO 60' IN HEIGHT. THE APARTMENT PROJECT WILL HAVE ONE
ELEVATION, 75' IN WIDTH, THAT WILL BE SIX LEVELS BECAUSE OF GRADE CHANGES. THIS WILL
NECESSITATE A VARIANCE TO 75' IN HEIGHT.

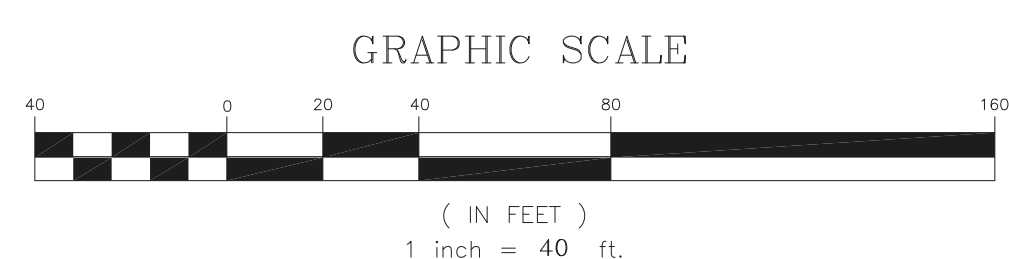
CONCURRENT VARIANCES
ROSWELL RD. AND FRANKLIN RD. SETBACKS: SECTION 7.4.3c
SECTION ESTABLISHES A 40' MINIMUM FRONT YARD SETBACK. PROJECT WILL REQUIRE A
VARIANCE TO A 0' SETBACK FROM THE PROPOSED RESERVE ROW ALONG ROSWELL RD.
AND A 25' SETBACK FROM THE ROW ALONG FRANKLIN RD.

LANDSCAPE STRIP: SECTION 12.4b
SECTION REQUIRES A 10' LANDSCAPE STRIP ALONG ROW'S OF ROSWELL RD. AND
FRANKLIN RD. REQUEST VARIANCE FOR A WAIVER OF REQUIRED LANDSCAPE STRIP.

BUFFER REQUIRED: SECTION 4.23.1
SECTION REQUIRES A 50' BUFFER AND 10' IMPROVEMENT SETBACK ALONG THE EASTERN
PROPERTY LINE. REQUEST VARIANCE TO A 40' LANDSCAPED AREA WITH NO IMPROVEMENT
SETBACK.

SETBACKS: SECTION 7.4.3b
SOUTHERN PROPERTY LINE REQUIRES A 20' NO BUILD SETBACK WHICH INCLUDES A
10' LANDSCAPE STRIP. REQUEST VARIANCE TO A ELIMINATE 20' NO BUILD SETBACK AND
MAINTAIN THE 10' LANDSCAPE STRIP ADJACENT TO THE PROPERTY LINE.

MONUMENT SIGNS: SECTION 33.26.1c
ALLOWS A ONE MONUMENT SIGN PER FRONTAGE. REQUEST VARIANCE TO ALLOW TWO
MONUMENTS SIGNS PER FRONTAGE.



CAUTION
THE UTILITIES SHOWN HEREIN ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY.
THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER
ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE
CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES WITHIN THE LIMITS
OF THE WORK. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL
BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.



ESSENTIAL ENGINEERING SERVICES
5400 Laurel Springs Parkway - Suite 1105
Suwanee, Georgia 30066

summit
Engineering Consultants, Inc.
6250 Shiloh Road, Suite 200
Alpharetta, Georgia 30005
(770) 667-0094 / (770) 667-0095

The Worthing Companies
5909 PEACHTREE DUNWOODY RD.
SUITE 400
ATLANTA, GA 30328
770-522-5775

The Providence Group
of Georgia, L.L.C.
Warren Jolly
11330 Lakefield Drive
Building II, Suite 200
Johns Creek, Georgia 30097
Tele: (678) 475-1800

Project No.	No.	Revision	Schedule
S-14433			
Design By:	OKH		
Drawn By:	OKH		
Checked By:	OKH		
Date:	7/7/14		
Scale:	1" = 40'		

DRI SITE PLAN (DRI #2419)
THE HEIGHTS AT SANDY SPRINGS
LAND LOT 94 - 17th DISTRICT
CITY OF SANDY SPRINGS
FULTON COUNTY, GEORGIA

Drawing No.
1 OF 1

The proposed site driveways mentioned above, in conjunction with internal roadways, will provide access to all parking on the site. Parking will be provided in a deck for the apartments and on each residential lot throughout the proposed development, with parallel parking provided along the internal streets serving the townhomes. Access to the townhomes will be restricted by gates at site driveway #4 and internally between site driveways #1 and #3.

1.4 Bicycle and Pedestrian Facilities

Currently, sidewalks do not exist along the site's frontage along SR 9 (Roswell Road) and Franklin Road. Pedestrian facilities (sidewalks) currently exist in partial segments along the west side of SR 9 (Roswell Road) and along the north side of Franklin Road adjacent to the site (approximately from proposed site driveway #4 to proposed site driveway #2). No sidewalks currently exist along the east side of SR 9 (Roswell Road) or the south side of Franklin Road. With the proposed development, sidewalks will be installed along the site's frontage along the east side of SR 9 (Roswell Road) and along the south side of Franklin Road. Separate bicycle facilities do not currently exist along SR 9 (Roswell Road) or Franklin Road. Just north (approximately 400 feet) of SR 9 (Roswell Road) at Franklin Road (Intersection #2) is a High-Intensity Activated Crosswalk (HAWK) beacon, which enhances pedestrian mobility along SR 9 (Roswell Road).

1.5 Transit Facilities

Currently, there is one existing direct transit route for The Heights at Sandy Springs development. MARTA Bus Route 5 services SR 9 (Roswell Road) with two (2) northbound stops and two (2) southbound stops adjacent to the site, providing local stops and ultimately connecting the Dunwoody MARTA Rail station/Perimeter Mall to the Lindbergh MARTA Rail station. Per GRTA's Letter of Understanding, a 2% alternative mode reduction was taken. A map of the MARTA bus route is included in **Appendix B**. Note: The lack of sidewalks combined with two (2) MARTA stops along the site's frontage creates operational challenges for pedestrians.

2.0 TRAFFIC ANALYSES METHODOLOGY AND ASSUMPTIONS

2.1 Growth Rate

Background traffic is defined as expected traffic on the roadway network in future year(s) absent the construction and opening of the proposed project. Historical traffic count data from GDOT was reviewed for the area surrounding the proposed development, growth rates were discussed during the Pre-Application meeting with GRTA, ARC, GDOT, and City of Sandy Springs staff. The background growth rate used for this analysis was 2.0% per year for three (3) years on all adjacent roadways.

2.2 Traffic Data Collection

Weekday peak hour turning movement counts were collected at all four (4) intersections within the study network during the AM and PM peak periods. The counts for all intersections were collected in May 2014. The morning and afternoon peak hours varied between the intersections and are shown in **Table 2**.

Table 2 The Heights at Sandy Springs DRI Peak Hour Summary – Existing 2014		
<u>Intersection</u>	<u>AM Peak Hour</u>	<u>PM Peak Hour</u>
1. SR 9 (Roswell Rd) @ Windsor Pkwy (signalized)	7:45-8:45	5:00-6:00
2. SR 9 (Roswell Rd) @ Franklin Rd (unsignalized)*	7:45-8:45	5:30-6:30
3. SR 9 (Roswell Rd) @ Belle Isle Rd (signalized)	8:00-9:00	5:00-6:00
4. Franklin Rd @ High Point Rd (unsignalized)	7:15-8:15	5:00-6:00

* Intersection currently meets requirements for signalization.

All traffic counts are provided in **Appendix E**. It should be noted that at the intersections of SR 9 (Roswell Road) @ Windsor Parkway (Intersection #1), SR 9 (Roswell Road) @ Franklin Road (Intersection #2), SR 9 (Roswell Road) @ Belle Isle Road (Intersection #3), and SR 9 (Roswell Road) @ Site Driveway #1, the 2017 No-Build traffic volumes were adjusted to account for the project trips associated with the development of DRI #2290 Chastain Mixed Use, found in **Appendix G**.

2.3 Detailed Intersection Analysis

Level-of-Service (LOS) is used to describe the operating characteristics of a road segment or intersection in relation to its capacity. LOS is defined as a qualitative measure that describes operational conditions and motorists' perceptions within a traffic stream. The *Highway Capacity Manual* defines six Levels-of-Service, LOS A through LOS F, with A being the best and F being the worst. Level-of-Service analyses were conducted at all intersections within the study network using *Synchro Professional, Version 8.0*.

Levels-of-Service for signalized intersections are reported for the intersection as a whole. One or more movements at an intersection may experience a low Level-of-Service, while the intersection as a whole may operate acceptably.

Levels-of-Service for unsignalized intersections, with all way stop control, are reported for the intersection as a whole. One or more movements at an intersection may experience a low Level-of-Service, while the intersection as a whole may operate acceptably.

Levels-of-Service for unsignalized intersections, with stop control on the minor street only, are reported for the side street approaches. Low Levels-of-Service for side street approaches are not uncommon, as vehicles may experience delay in turning onto a major roadway. The delay for vehicles on the mainline is low as the vehicles do not have to stop.

3.0 STUDY NETWORK

3.1 Gross Trip Generation

Traffic for the proposed land use and density was calculated using equations contained in the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, Ninth Edition, 2012*. Average rates were used only when equations were not provided. Gross trips generated are displayed in **Table 3**.

Table 3 The Heights at Sandy Springs DRI Gross Trip Generation							
Land Use	ITE Code	Daily Traffic		AM Peak Hour		PM Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
369 Apartment dwelling units	220	1,180	1,180	37	148	144	77
173 Townhouse dwelling units	230	518	518	14	66	63	31
Total Gross Trips		1,698	1,698	51	214	207	108
Existing Apartment Trips (312 units)		-1,007	-1,007	-31	-126	-123	-66
Resulting Increase in Gross Trips		691	691	20	88	84	42

3.2 Trip Distribution

The directional distribution and assignment of new project trips was based on the project land use, a review of the land use densities and road facilities in the area, driving the study network and study intersections, engineering judgment, and methodology discussions with GRTA, ARC, GDOT, and City of Sandy Springs staff.

3.3 Level-of-Service Standards

For the purposes of this traffic analysis, a Level-of-Service standard of D was assumed for all intersections and segments within the study network. If, however, an intersection or segment currently operates at LOS E or LOS F during an existing peak period, the LOS standard for that peak period becomes LOS E, consistent with the GRTA Letter of Understanding.

3.4 Study Network Determination

A general study area was determined using the GRTA 7% rule. This rule recommends that all intersections and segments be analyzed which are impacted to the extent that the traffic from the proposed site is 7% or more of the service volume of the facility (at a previously established LOS standard, typically LOS D) be considered for analysis. The study area was agreed upon during methodology discussions with GRTA, ARC, GDOT, and City of Sandy Springs staff, and includes the four (4) intersections listed in **Table 4** as well as the four (4) proposed site driveways accessing The Heights at Sandy Springs development.

Table 4 The Heights at Sandy Springs DRI Intersection Control Summary	
<u>Intersection</u>	<u>Control</u>
1. SR 9 (Roswell Road) @ Windsor Parkway	Signalized
2. SR 9 (Roswell Road) @ Franklin Road	WB Stop*
3. SR 9 (Roswell Road) @ Belle Isle Road	Signalized
4. Franklin Road @ High Point Road	EB Stop*

*Note: At Intersection #2 and #4, the Franklin Road westbound approach and eastbound approach are stop controlled, while the SR 9 (Roswell Road) and High Point Road northbound and southbound approaches are free-flow.

Each of the above listed intersections were analyzed for the Existing 2014 conditions, the projected 2017 No-Build conditions, and the projected 2017 Build conditions. The projected 2017 No-Build conditions represent the existing traffic volumes grown for three (3) years at 2.0% per year throughout the study network, plus the traffic associated with the development of DRI #2290 Chastain Mixed Use. The projected 2017 Build conditions add the project trips associated with The Heights at Sandy Springs development to the projected 2017 No-Build conditions.

3.5 Existing Facilities

Roadway classification descriptions for the study area are provided in **Table 5** (bolded roadways run adjacent to the site).

Table 5 The Heights at Sandy Springs DRI Roadway Classification				
Roadway	No. of Lanes	Posted Speed Limit (MPH)	City of Sandy Springs Functional Classification	GDOT Functional Classification
SR 9 (Roswell Road)	5	35	Principal Arterial	Urban Principal Arterial
Franklin Road	2	25	Local	Urban Local
Windsor Parkway	2	35	Collector	Urban Collector
High Point Road	2	35	Collector	Urban Collector
Belle Isle Road	2	25	Local	Urban Local

4.0 TRIP GENERATION

As stated earlier, trips associated with the proposed development were estimated using the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, Ninth Edition, 2012*, using equations where available. Trip generation for this proposed development is calculated based upon the following land uses: apartment (ITE Code 220) and townhouse (ITE Code 230) residential dwelling units.

Mixed-use vehicle trip reductions were not applied for this project because the proposed development is residential only (no non-residential land use).

Alternative transportation mode (walking, bicycle, and transit) reductions were applied for this project at a 2% transportation impact factor.

Pass-by reductions were not applied for this project because the proposed development is residential only.

The total (net) trips generated and analyzed in this report are listed in **Table 6**. **Appendix D** provides more detailed trip generation analyses, and **Appendix E** provides intersection volume worksheets for all intersections and driveways within the study network.

Table 6 The Heights at Sandy Springs DRI Net Trip Generation						
	Daily Traffic		AM Peak Hour		PM Peak Hour	
	Enter	Exit	Enter	Exit	Enter	Exit
Gross Project Trips	1,698	1,698	51	214	207	108
<i>Existing Apartment Trips</i>	-1,007	-1,007	-31	-126	-123	-66
Net New Trips	691	691	20	88	84	42
<i>Alternative Mode Reduction</i>	-14	-14	-1	-2	-2	-1

5.0 TRIP DISTRIBUTION AND ASSIGNMENT

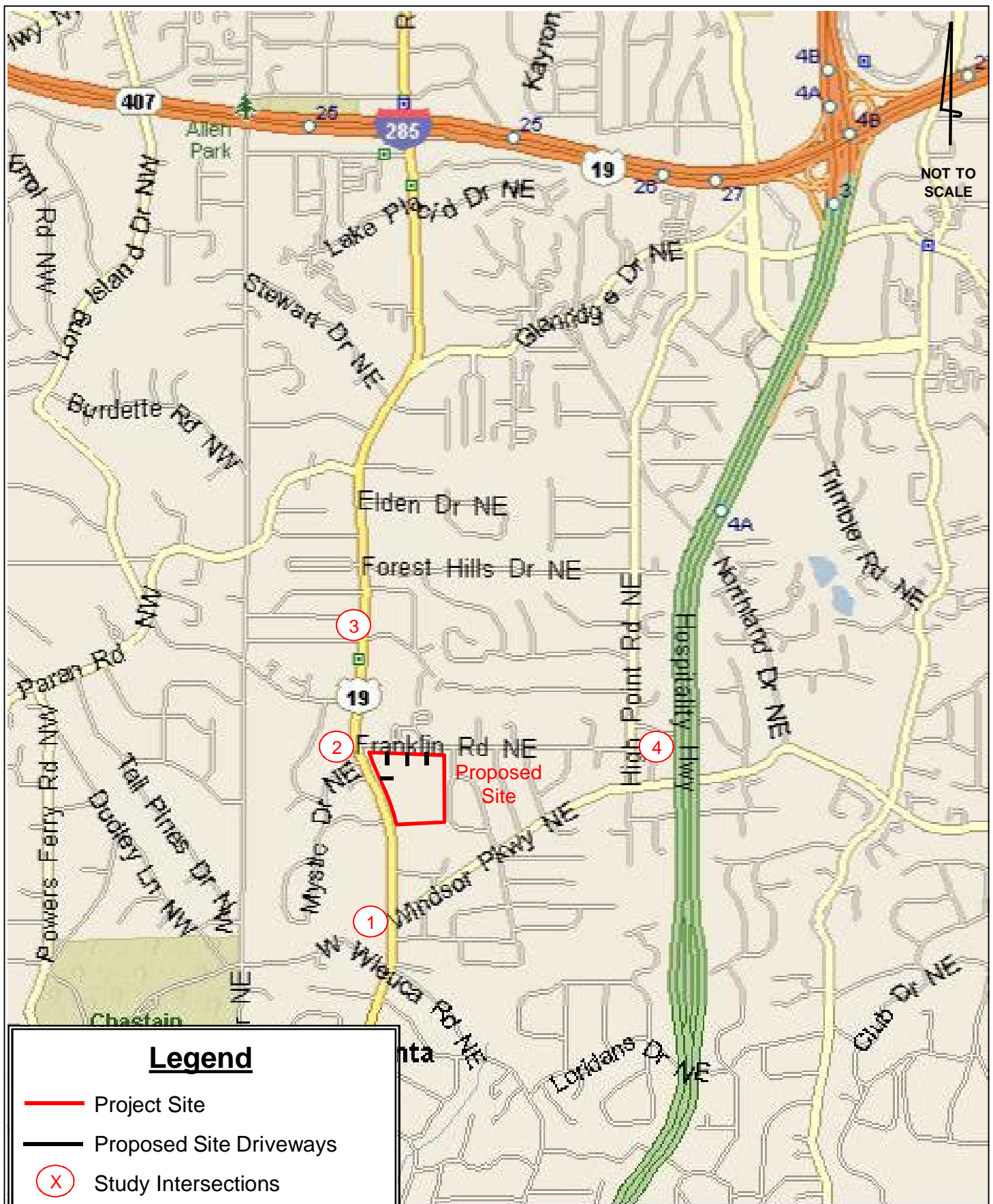
New trips were distributed onto the roadway network using the percentages agreed to during methodology discussions with GRTA, ARC, GDOT, and City of Sandy Springs staff. The study intersections are shown in **Figure 5**. **Figures 6 and 7** display the expected trip percentages for the residential project trips of the development throughout the roadway network. These percentages were applied to the new trips generated by the development, and the volumes were assigned to the roadway network. The expected peak hour turning movements generated by the proposed The Heights at Sandy Springs development are shown in **Figure 8**.

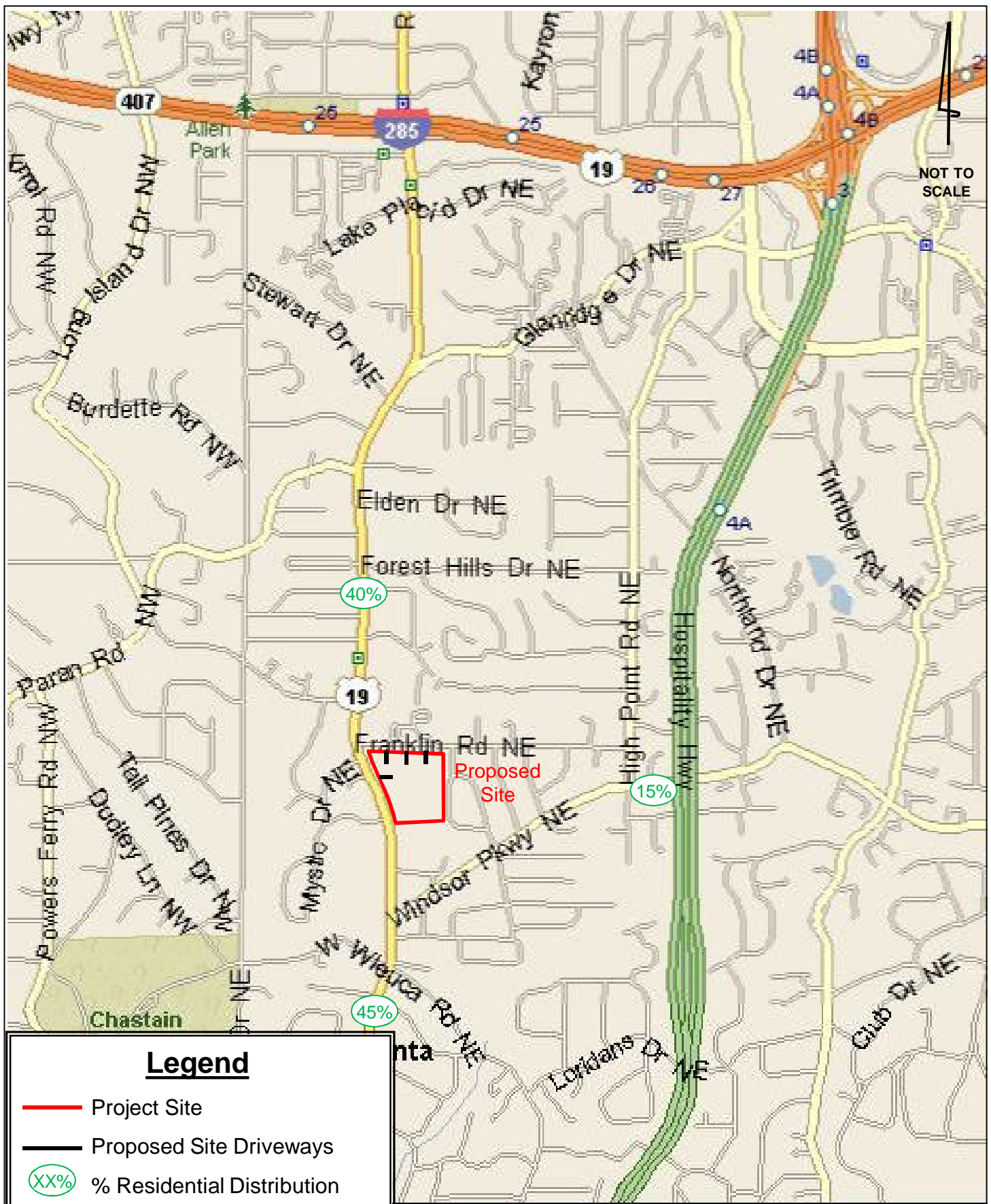
6.0 TRAFFIC ANALYSIS

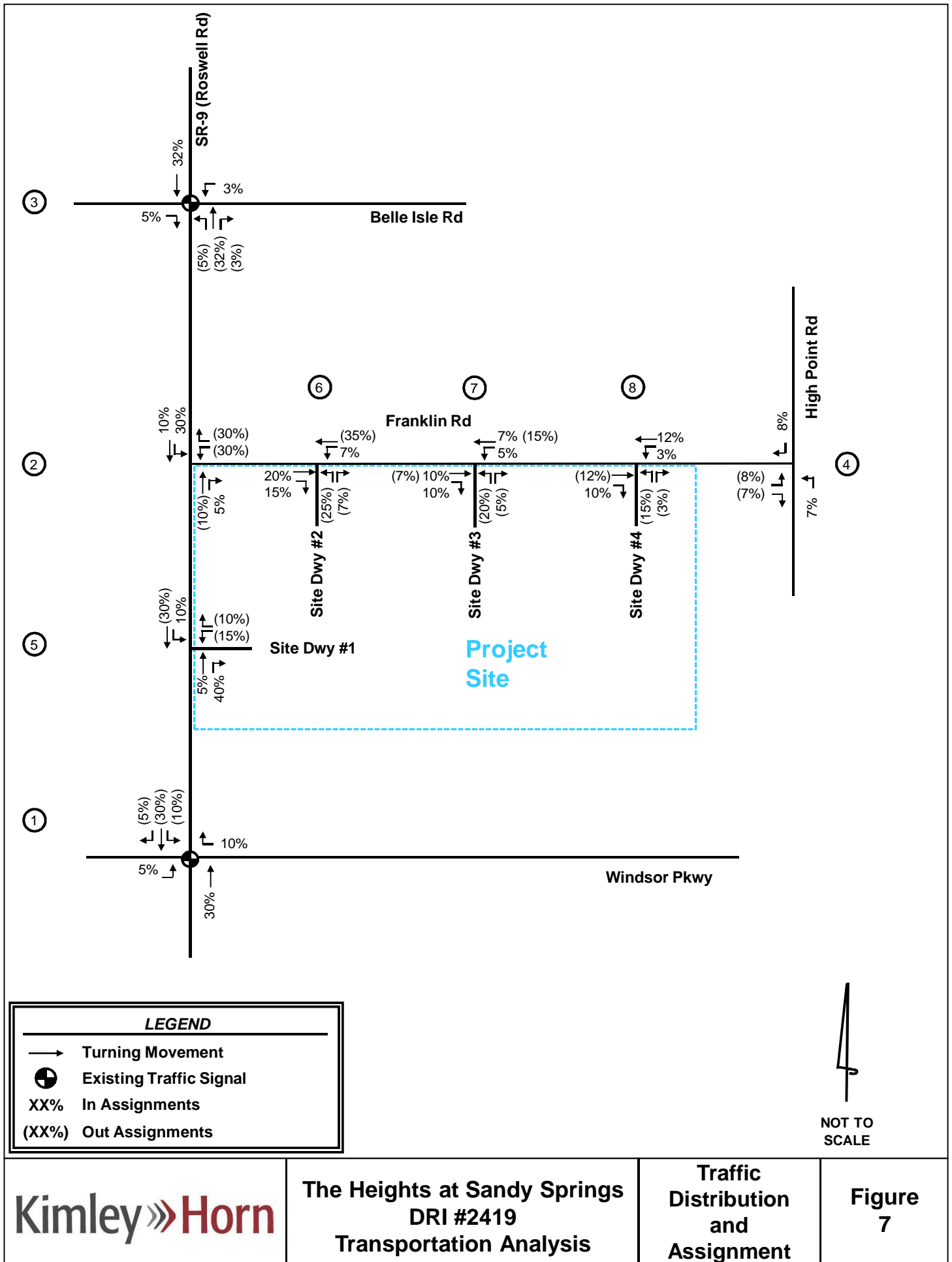
6.1 Existing 2014 Conditions

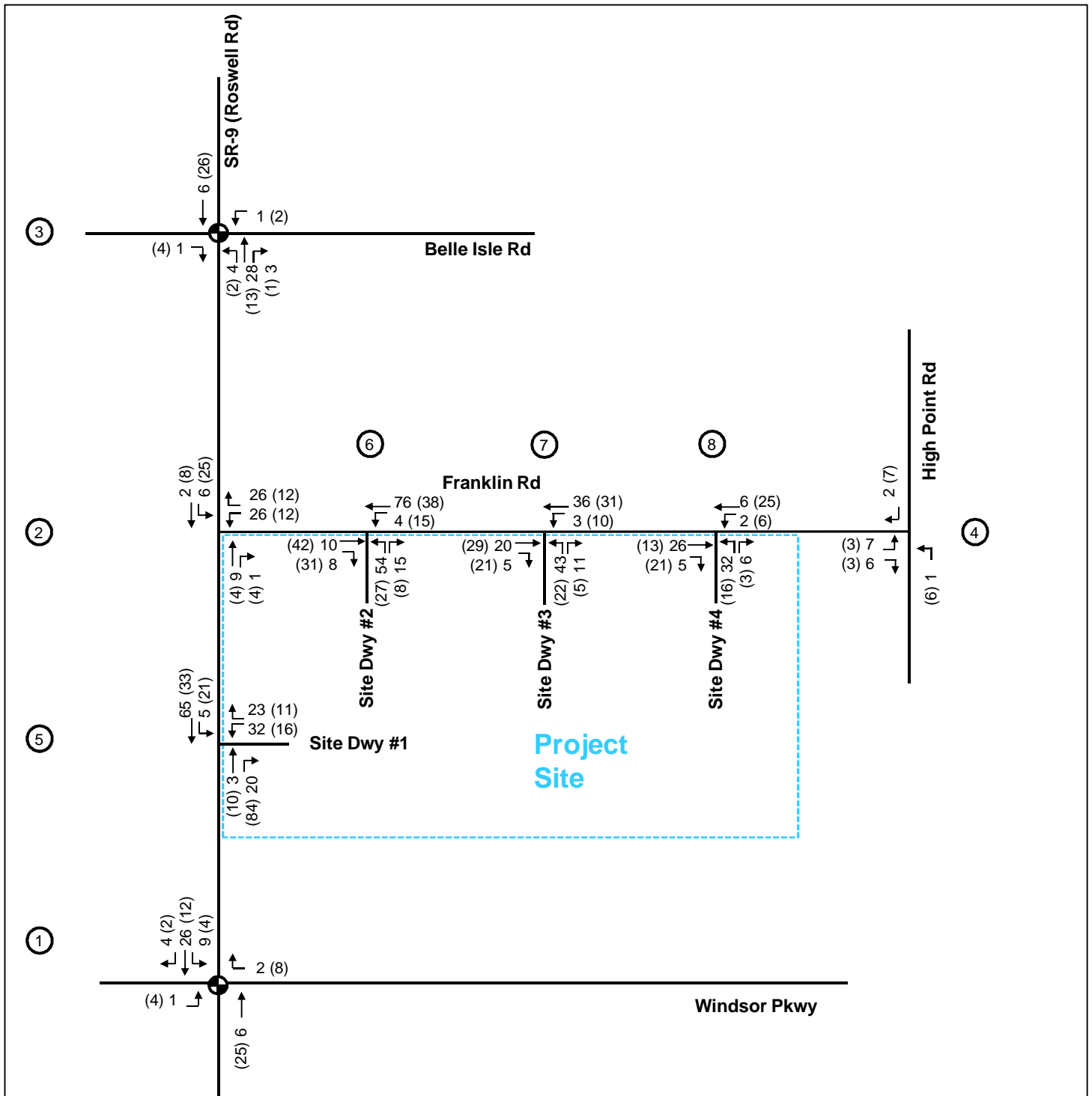
The observed existing peak hour traffic volumes were inputted into *Synchro 8.0*, and capacity analyses were performed for the AM and PM peak hours. The existing peak hour traffic volumes are shown in **Figure 9**.

Based on the Existing 2014 conditions, one (1) intersection within the study network currently operates below the acceptable Level-of-Service standard (LOS D) during the PM peak hour. This intersection's No-Build and Build PM Peak Hour LOS standard, therefore, is LOS E per GRTA guidelines. The Existing 2014 Levels-of-Service with existing geometry are displayed in **Table 7**.









LEGEND

- Turning Movement
- ⊕ Existing Traffic Signal
- XX AM Peak Hour Project Trips
- (XX) PM Peak Hour Project Trips



NOT TO SCALE

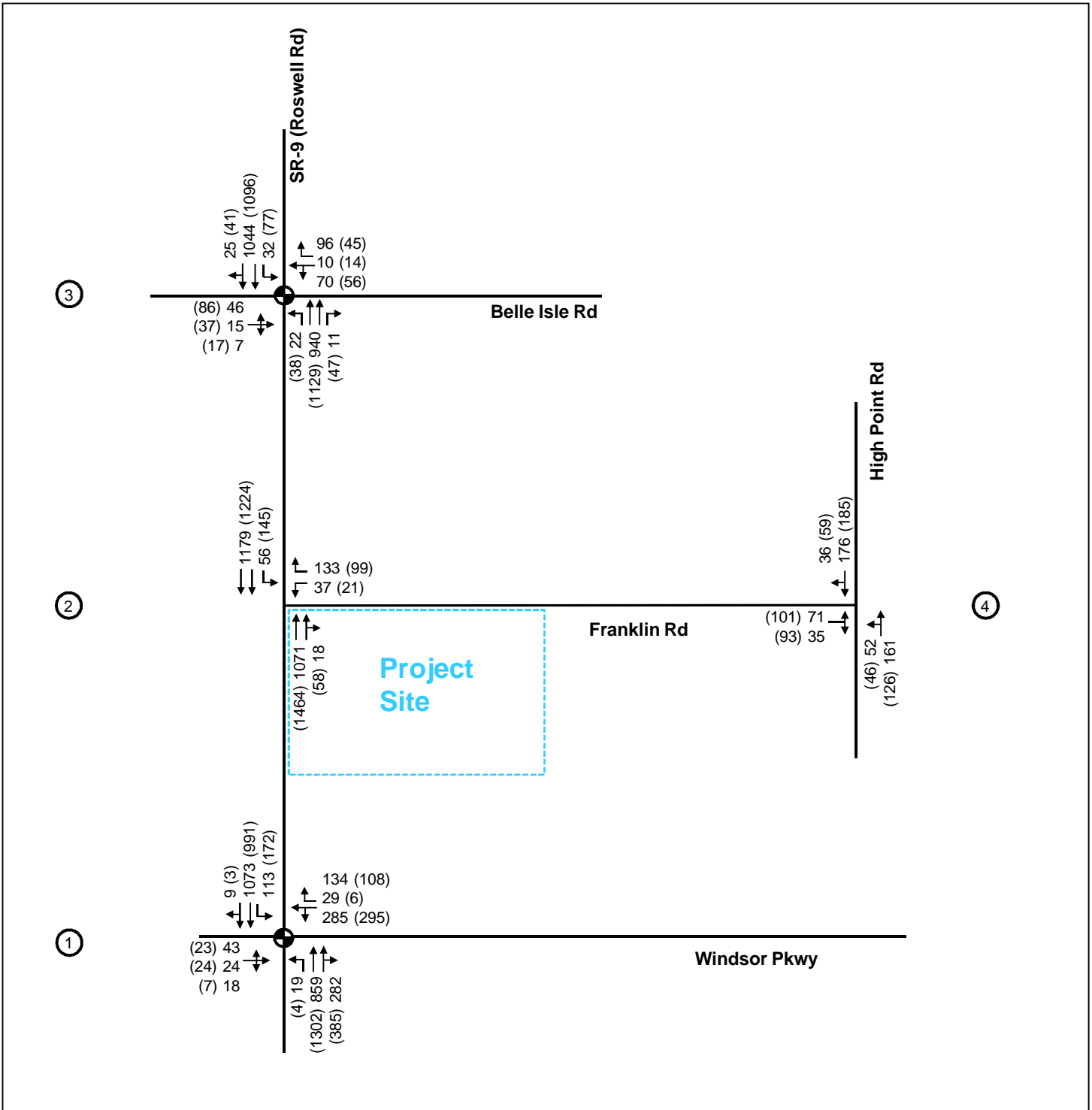


Table 7 The Heights at Sandy Springs DRI Existing 2014 Intersection Levels-of-Service (delay in seconds)					
Intersection		Control	LOS Std. (AM/PM)	AM Peak Hour	PM Peak Hour
1	SR 9 (Roswell Road) @ Windsor Parkway	Signal	D/E	D (42.1)	E (62.5)
2	SR 9 (Roswell Road) @ Franklin Road	WB Stop	D/D	C (20.6)	D (25.3)
3	SR 9 (Roswell Road) @ Belle Isle Road	Signal	D/D	B (17.9)	B (18.5)
4	Franklin Road @ High Point Road	EB Stop	D/D	B (14.0)	B (14.7)

6.2 Projected 2017 No-Build Conditions

Based on the GRTA Notice of Decision for DRI #2290 Chastain Mixed Use, one study intersection will be improved between the Existing 2014 conditions and the projected 2017 No-Build conditions. Project T-0045 (See Table 12, Project #15) was taken into consideration for our analysis. The signalized intersection of SR 9 (Roswell Road) @ Windsor Parkway (Intersection #1) is currently planned to be realigned. According to the City of Sandy Springs, this project is fully funded and design is underway, with construction scheduled to begin in late 2014. For this report, we analyzed the intersection of SR 9 (Roswell Road) @ Windsor Parkway as it currently exists for Existing 2014 conditions, and realigned for Projected 2017 No-Build, Build, and Build-Improved conditions. The proposed signal and lane configuration can be found in **Appendix F**.

The following improvements are in process (City of Sandy Springs Project T-0045), and were thus inputted into *Synchro 8.0* for the projected 2017 No-Build conditions and carried forward throughout all subsequent analysis.

- SR 9 (Roswell Road) @ Windsor Parkway (Intersection #1):
 - Convert the westbound approach from one shared through-left lane and one right-turn lane to two exclusive left-turn lanes and one shared through-right lane.

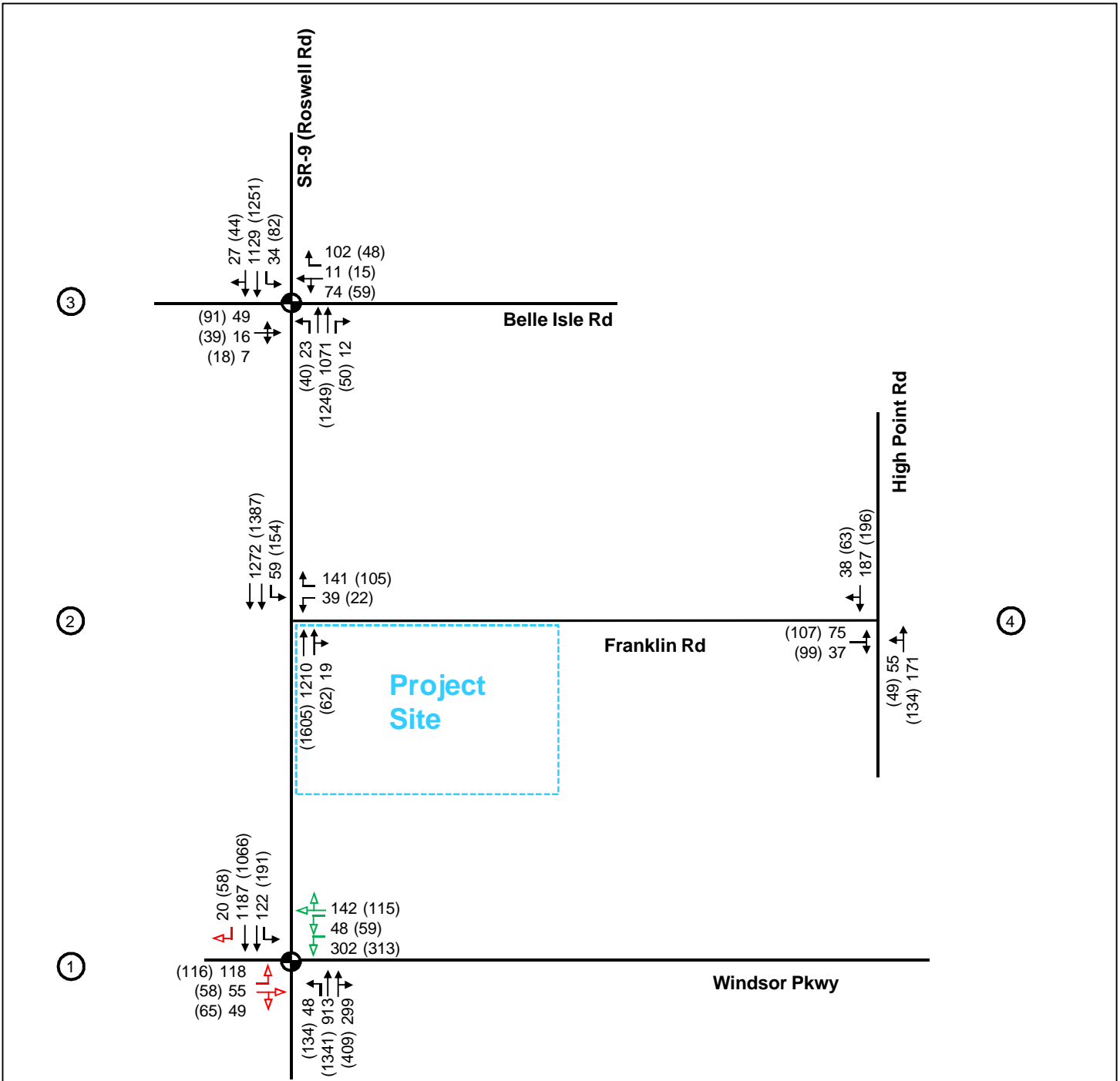
Based on the build out of DRI #2290 Chastain Mixed Use, an eastbound approach will be added to the intersection of SR 9 (Roswell Road) @ Windsor Parkway (Intersection #1), to serve as a site driveway. The improvements will consist of:

- Construct an eastbound left-turn lane and shared through-right-turn lane.
- Convert the existing southbound shared through-right-turn lane into an exclusive through lane and construct an exclusive right-turn lane.

To account for growth in the vicinity of the proposed development, the existing traffic volumes were increased for three (3) years at 2.0% per year throughout the study network. These volumes, plus the traffic associated with the development of DRI #2290 Chastain Mixed Use, were inputted into *Synchro 8.0* with existing roadway geometry and aforementioned changes at Intersection #1, and capacity analyses were performed. The intersection laneage and traffic volumes for the projected 2017 No-Build conditions are shown in **Figure 10**.

Based on the projected 2017 No-Build conditions, no intersection within the study network is projected to operate below the acceptable Level-of-Service standard during the AM and/or PM peak hour.

The projected 2017 No-Build Levels-of-Service with existing geometry and DRI #2290 Chastain Mixed Use changes previously discussed at intersection #1 are displayed in **Table 8**.



LEGEND

- Existing Roadway Laneage
- Planned Improvement
- DRI #2290 Improvement
- ⊕ Existing Traffic Signal
- ⊗ Intersection Reference Number
- XX AM Peak Hour Traffic Volumes
- (XX) PM Peak Hour Traffic Volumes

NOT TO SCALE

Table 8 The Heights at Sandy Springs DRI Projected 2017 No-Build Intersection Levels-of-Service (existing roadway laneage) (delay in seconds)					
Intersection		Control	LOS Std. (AM/PM)	AM Peak Hour	PM Peak Hour
1	SR 9 (Roswell Road) @ Windsor Parkway*	Signal	D/E	D (35.5)	E (61.5)
2	SR 9 (Roswell Road) @ Franklin Road	WB Stop	D/D	D (25.1)	D (30.8)
3	SR 9 (Roswell Road) @ Belle Isle Road	Signal	D/D	B (18.5)	B (19.7)
4	Franklin Road @ High Point Road	EB Stop	D/D	B (14.8)	C (15.6)

* Realignment at Intersection #1 from City of Sandy Springs project T-0045.

6.3 Projected 2017 Build Conditions

The traffic associated with the proposed development was added to the projected 2017 No-Build volumes. These volumes were then inputted into *Synchro 8.0* with existing roadway geometry, except at Intersection #1 as mentioned previously. The intersection laneage and traffic volumes for the projected 2017 Build conditions are shown in **Figure 11**.

Based on projected 2017 Build conditions, one (1) intersection within the study network is projected to operate below the acceptable Level-of-Service standard during the PM Peak Hour. The following improvements result in the following one (1) intersection operating at or above its LOS standard:

- SR 9 (Roswell Road) @ Franklin Road (Intersection #2):
 - Install a traffic signal (meets signal warrants under Existing Conditions).
 - Add a northbound right-turn lane along SR 9 (Roswell Road).

The projected 2017 Build Levels-of-Service with existing geometry and DRI #2290 Chastain Mixed Use changes previously discussed at intersections #1 and #3 are displayed in **Table 9**; the Levels-of-Service with the 2017 Build improvements are shown in **Table 10**.

Table 9 The Heights at Sandy Springs DRI Projected 2017 Build Intersection Levels-of-Service (existing roadway laneage) (delay in seconds)					
Intersection		Control	LOS Std. (AM/PM)	AM Peak Hour	PM Peak Hour
1	SR 9 (Roswell Road) @ Windsor Parkway*	Signal	D/E	C (34.9)	E (64.5)
2	SR 9 (Roswell Road) @ Franklin Road	WB Stop	D/D	D (31.6)	E (35.6)
3	SR 9 (Roswell Road) @ Belle Isle Road	Signal	D/D	B (18.8)	C (20.1)
4	Franklin Road @ High Point Road	EB Stop	D/D	C (15.2)	C (16.3)

* Realignment at Intersection #1 from City of Sandy Springs project T-0045.

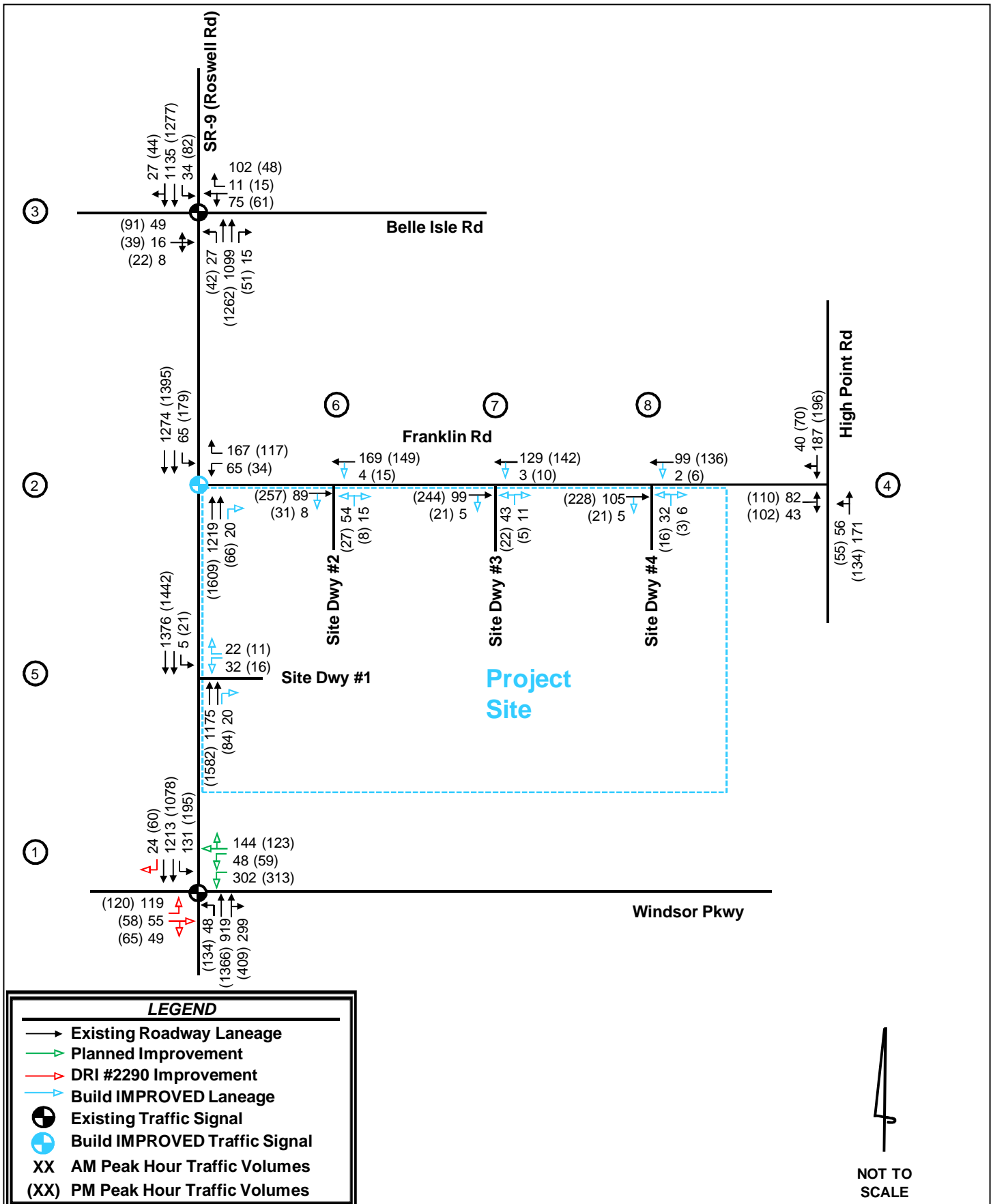


Table 10 The Heights at Sandy Springs DRI Projected 2017 Build Intersection Levels-of-Service IMPROVED (delay in seconds)					
Intersection		Control	LOS Std. (AM/PM)	AM Peak Hour	PM Peak Hour
1	SR 9 (Roswell Road) @ Windsor Parkway*	Signal	D/E	C (34.8)	E (64.5)
2	SR 9 (Roswell Road) @ Franklin Road	Signal	D/D	B (15.6)	C (30.7)
3	SR 9 (Roswell Road) @ Belle Isle Road	Signal	D/D	B (18.3)	B (20.0)
4	Franklin Road @ High Point Road	EB Stop	D/D	C (15.2)	C (16.3)

* Realignment at Intersection #1 from City of Sandy Springs project T-0045.

7.0 INGRESS/EGRESS ANALYSIS

Vehicular access to The Heights at Sandy Springs development site is proposed at four (4) locations. One full-movement site driveway is proposed along SR 9 (Roswell Road) adjacent to the site and three full-movement site driveways are proposed along Franklin Road adjacent to the site.

The site driveways mentioned above provide access to the entire development. Internal roadways throughout the site provide access to all lots.

A capacity analysis was performed for the site driveways for the projected 2017 Build conditions. The intersection laneage and traffic volumes for the year 2017 Build conditions are shown in **Figure 11**.

The following improvements are the recommended driveway configurations:

- Site Driveway #1 @ SR 9 (Roswell Road)
 - Install a northbound right-turn lane along SR 9 (Roswell Road).
 - Construct a westbound right-turn lane and left-turn lane exiting the proposed development.
- Site Driveway #2 @ Franklin Road
 - Construct a northbound shared right-left-turn lane exiting the proposed development.
- Site Driveway #3 @ Franklin Road
 - Construct a northbound shared right-left-turn lane exiting the proposed development.
- Site Driveway #4 @ Franklin Road
 - Construct a northbound shared right-left-turn lane exiting the proposed development.

The Level-of-Service for the site driveway and the intersection geometry stated above are shown in **Table 11**.

Table 11 The Heights at Sandy Springs DRI Projected Build 2017 Intersection Levels-of-Service – Site Driveway (delay in seconds)				
Intersection	Control	LOS Std. (AM/PM)	AM Peak Hour	PM Peak Hour
Site Driveway #1 @ SR 9 (Roswell Road)	WBL Stop	D	D (26.0)	E (40.3)*
Site Driveway #2 @ Franklin Road	NBL Stop	D	B (11.2)	B (11.8)
Site Driveway #3 @ Franklin Road	NBL Stop	D	B (10.7)	B (11.4)
Site Driveway #4 @ Franklin Road	NBL Stop	D	B (10.4)	B (11.1)

* LOS E at side street approaches is not uncommon for left-turn movements. Further, these vehicles can also use Franklin Road to turn left onto SR 9 (Roswell Road).

8.0 IDENTIFICATION OF PROGRAMMED PROJECTS

The ARC's Transportation Improvement Plan (TIP), GDOT Statewide TIP (STIP), *Plan 2040* Regional Transportation Plan (RTP), GDOT's Construction Work Program, and Fulton County and City of Sandy Springs's Comprehensive Transportation Plan were researched for currently programmed transportation projects within the vicinity of the proposed development. Several projects are programmed for the area surrounding the study network. The identified projects are listed in **Table 12**, and a map summarizing the project locations is shown in **Figure 12**.

Table 12
The Heights at Sandy Springs DRI
Programmed Improvement Projects

#	Completion Date	Project ID	Sponsor	Project Description
1	2015	FN-282	City of Sandy Springs	Installation of traffic adaptive signal management, enhanced vehicle counting stations, and additional system vehicle detection as required, along SR 9 (Roswell Rd) from Atlanta City Limits to Abernathy Rd. Intersection upgrades will be limited to components necessary to operate the traffic adaptive application. Funding is under the Roadway Operations and Safety Program.
2	2015	FN-260	City of Sandy Springs	Pedestrian improvements along SR 9 (Roswell Road) from Cliftwood Drive to Hammond Drive.
3	2020	FN-221	City of Sandy Springs	Widen Johnson Ferry Road from 2 to 4 lanes and add median from east of Sandy Springs Circle to Hammond Drive. Widen Glenridge Drive from 2 to 4 lanes with a median to Hammond Drive.
4	2020	FN-298	City of Sandy Springs	ATMS system expansion along Glenridge Drive, Hammond Drive, and Peachtree Dunwoody Road.
5	2030	AR-409A	GDOT	Protective right-of-way acquisition from Cumberland to Perimeter Center for the proposed I-285 North Corridor High Capacity Rail Service project.
6	2030	FN-267	City of Sandy Springs	Widen Hammond Drive from SR 9 (Roswell Rd) to Glenridge Dr.
7	2040	AR-ML-200	GDOT	Construct managed lanes and collector-distributor improvements along I-285 North from I-75 North to I-85 North.
8	TBD	ASP-AR-409B	TBD	Provide all-day high capacity rail service between Cumberland/Galleria and Perimeter Center.
9	TBD	ASP-AR-ML-310	TBD	Construct managed lanes along SR 400 from I-85 North to I-285 North.
10	TBD	ASP-AT-257	City of Atlanta	Construct Roswell Road (SR 9) / Piedmont Road (SR 237) connector from Habersham Road and Piedmont Road to Roswell Road at Ivy Parkway.
11	TBD	T-0019	City of Sandy Springs	Installation of sidewalks on both sides of SR 9 (Roswell Rd) from I-285 ramps to Atlanta City Limits. (3 Phases- on hold.)
12	CST Summer 2014	T-0040	City of Sandy Springs	Install sidewalk on both south side and north side of Glenridge Drive.
13	CST Est 2016	T-0043	City of Sandy Springs	Glenridge Drive/SR 9 operational improvement and realignment.
14	CST Est 2015	T-0044	City of Sandy Springs	Implementation of ATMS along SR 9 (Roswell Road) from Abernathy Road south to Meadowbrook Drive.
15	CST Summer 2014, Est completion 2015	T-0045	City of Sandy Springs	Realign intersection of Windsor Parkway and Roswell Road to improve level of service by correcting significant intersection skew angle and resultant split-phased traffic signal operations. Added turn lanes will address traffic volumes. Improved alignment will reduce potential for traffic accidents.
16	CST Summer 2014	T-0049	City of Sandy Springs	Installation of sidewalk on west side of SR 9 (Roswell Rd) between Long Island Dr NE and Mystic Dr NE, including pedestrian-scale lighting and associated landscaping tied into HAWK mid-block crossing.
17	CST Est 2016	T-0053	City of Sandy Springs	Windsor Parkway pedestrian bridge at Nancy Creek (EB).
18	CST April 2014	Sidewalk Program	City of Sandy Springs	Construct new sidewalk and tie into existing sidewalk on the south side of Mt. Paran Road from Hemsley Drive to Roswell Road.

9.0 INTERNAL CIRCULATION ANALYSIS

Internal roadways throughout the site provide access to all lots. A more detailed layout of the internal roadways is shown in **Figure 4**.

Since the proposed development is single-use, no mixed-use reductions were taken.

10.0 COMPLIANCE WITH COMPREHENSIVE PLAN ANALYSIS

The proposed development is single-use comprised of residential dwellings. According to ARC's PLAN 2040 Unified Growth Policy Map, the project site is proposed to be developed in the Maturing Neighborhoods. The proposed development will require a rezoning with the City of Sandy Springs and is proposed to be changed to an Apartment Limited Dwelling District (A-L).

11.0 NON-EXPEDITED CRITERIA

11.1 Vehicle Miles of Travel

Table 13 displays the reduction in traffic generation due to internal capture, alternative mode, and pass-by reductions.

Table 13 The Heights at Sandy Springs DRI Vehicle Mile Reductions	
	Weekday
Daily Gross Trip Generation:	3,396
(-) Existing 312 Apartment Units	-2,014
(-) Alternative modes	-28
Net Trips:	1,354

11.2 Transportation and Traffic Analysis

11.2.1 Planned and Programmed Improvements

The proposed project is not anticipated to preclude any transportation infrastructure improvement projects as identified by the City of Sandy Springs.

Project T-0045 (See *Table 12*, Project #15) was taken into consideration for our analysis. The signalized intersection of SR 9 (Roswell Road) @ Windsor Parkway (Intersection #1) is currently planned to be realigned. According to the City of Sandy Springs, this project is fully funded and design is underway, with construction scheduled to begin in late 2014. For this report, we analyzed the intersection of SR 9 (Roswell Road) @ Windsor Parkway as it currently exists for Existing 2014 conditions, and realigned for the Projected 2017 No-Build, Build, and Build-Improved conditions.

11.2.2 Preserving Regional Mobility

The western portion of the proposed development is proximate to SR 9 (Roswell Road), an urban principal arterial that provides indirect access to GA-400 to the east.

11.2.3 Safe and Efficient Operations

Pedestrians and bicyclists were taken into consideration when formulating and testing recommended improvements as outlined in this report. The DRI submission provides recommendations that not only address transportation enhancements for vehicular traffic, but also for pedestrians and bicyclists. The recommendations are intended to provide solutions that are context sensitive and create safe conditions and aim at balancing the mobility needs of all modes.

11.2.4 Minimize Congestion

The recommendations as described in this report are targeted at reducing vehicular congestion to standards as described earlier in this report. Recommendations reflect the goal of vehicular congestion mitigation. The residential use is proposed to accommodate pedestrians and bicyclists along the road adjacent to the site and roads internal to the site.

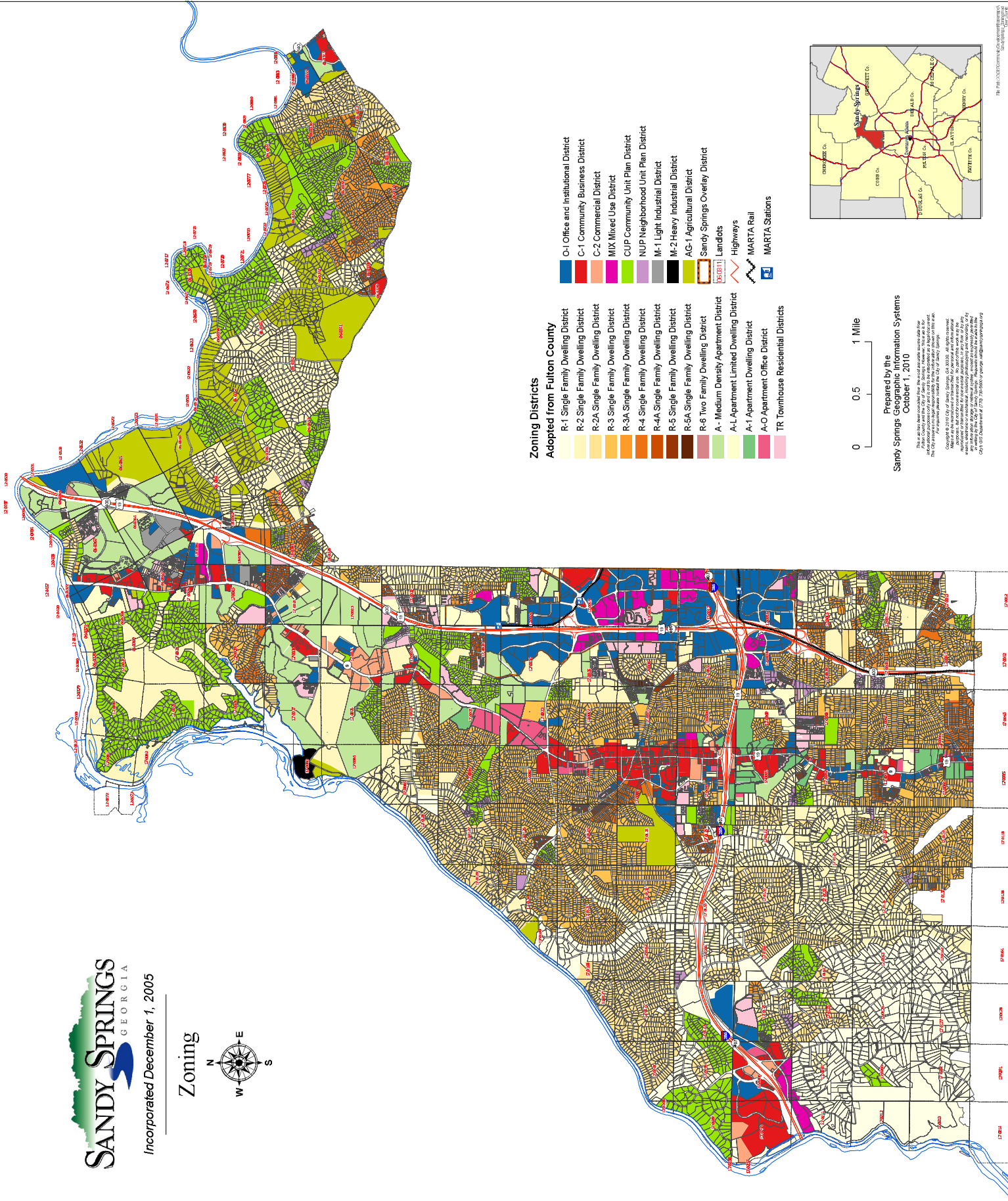
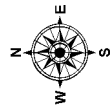
11.3 Relationship of Existing Development and Infrastructure

The development is located in an area where the existing infrastructure is adequate to serve the needs of the development upon build-out (2017). However, some transportation improvements will be needed within close proximity of the development (as noted in the Executive Summary).

Appendices

Appendix A
Land Use Maps

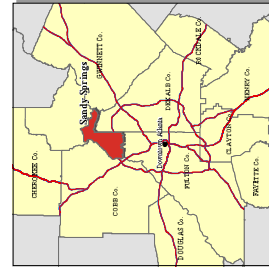
Zoning



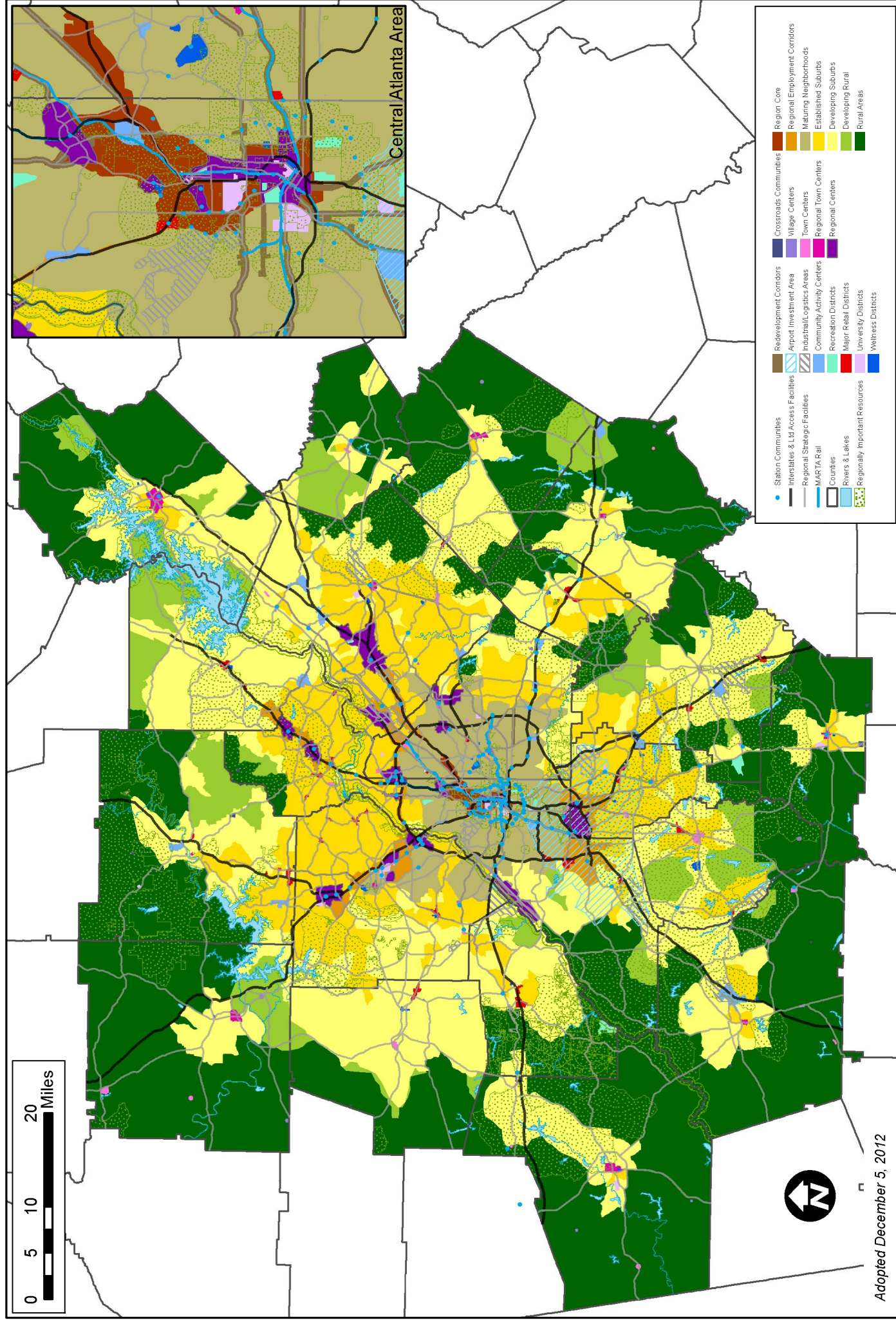
0 0.5 1 Mile

Prepared by the
Sandy Springs Geographic Information Systems
October 1, 2010

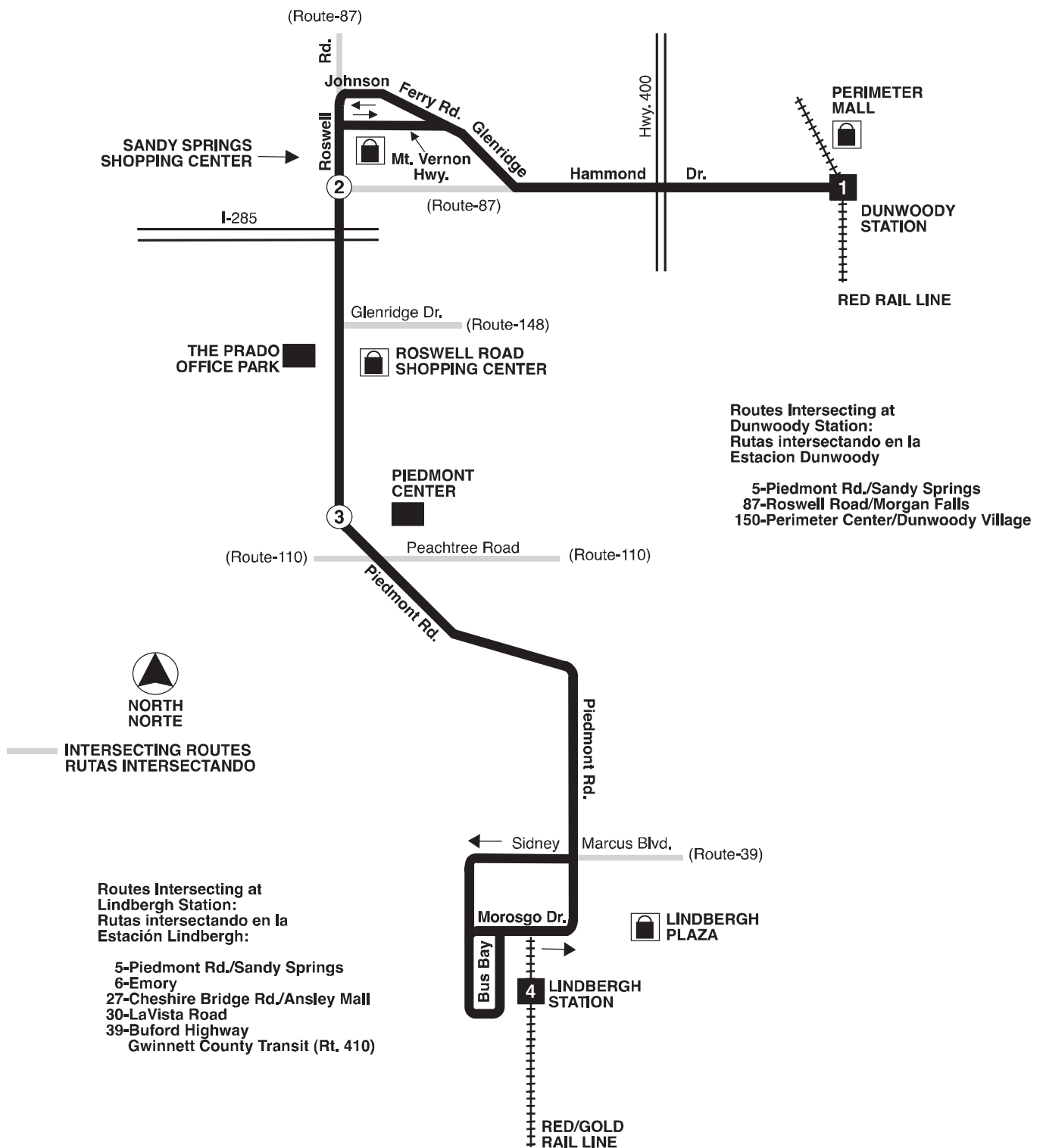
This map has been created from the most accurate source data for the City of Sandy Springs, Georgia. The City of Sandy Springs is not responsible for any errors or omissions in this map. The City of Sandy Springs is not responsible for any errors or omissions in this map. The City of Sandy Springs is not responsible for any errors or omissions in this map.



PLAN 2040 Unified Growth Policy Map



Appendix B
MARTA Bus Routes



Appendix C
Site Photographs

Sandy Springs, GA
Photograph Sheet

KHA Job No.: 019686005

KHA Rep.: MNS

Date: June 26, 2014

Page: 1 of 5

Site Name: The Heights at Sandy Springs DRI #2419

Photo No. 1



Comments: SR 9 (Roswell Road) at Proposed Driveway 1, Looking Northbound

Photo No. 2



Comments: SR 9 (Roswell Road) at Proposed Driveway 1, Looking Southbound

Sandy Springs, GA
Photograph Sheet

KHA Job No.: 019686005

KHA Rep.: MNS

Date: June 26, 2014

Page: 2 of 5

Site Name: The Heights at Sandy Springs DRI #2419

Photo No. 3



Comments: Franklin Road at Proposed Driveway 2, Looking Eastbound

Photo No. 4



Comments: Franklin Road at Proposed Driveway 2, Looking Westbound

Sandy Springs, GA
Photograph Sheet

KHA Job No.: 019686005

KHA Rep.: MNS

Date: June 26, 2014

Page: 3 of 5

Site Name: The Heights at Sandy Springs DRI #2419

Photo No. 5



Comments: Franklin Road at Proposed Driveway 3, Looking Eastbound

Photo No. 6



Comments: Franklin Road at Proposed Driveway 3, Looking Westbound

Sandy Springs, GA
Photograph Sheet

KHA Job No.: 019686005

KHA Rep.: MNS

Date: June 26, 2014

Page: 4 of 5

Site Name: The Heights at Sandy Springs DRI #2419

Photo No. 7



Comments: Franklin Road at Proposed Driveway 4, Looking Eastbound

Photo No. 8



Comments: Franklin Road at Proposed Driveway 4, Looking Westbound

Sandy Springs, GA
Photograph Sheet

KHA Job No.: 019686005

KHA Rep.: MNS

Date: June 26, 2014

Page: 5 of 5

Site Name: The Heights at Sandy Springs DRI #2419

Photo No. 9



Comments: Franklin Road at SR 9 (Roswell Road), Westbound Approach

Appendix D
Trip Generation Analyses

Trip Generation Analysis (9th Ed.) The Heights at Sandy Springs DRI #2419 Sandy Springs, GA									
Land Use	Intensity	Alternate Independent Variables Available	Daily Trips	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Proposed Site Traffic									
220 Apartment	369 d.u.	persons, vehicles	2,360	185	37	148	221	144	77
230 Residential Condominium/Townhouse	173 d.u.	persons, vehicles	1,036	80	14	66	94	63	31
Gross Trips			3,396	265	51	214	315	207	108
Residential Trips			3,396	265	51	214	315	207	108
Mixed-Use Reductions			0				0	0	0
Alternative Mode Reductions			-28	-2	0	-2	-3	-2	-1
Existing Apartment Trips (312 units)			-2,014	-157	-31	-126	-189	-123	-66
Adjusted Residential Trips			1,354	106	20	86	123	82	41
Mixed-Use Reductions - TOTAL			0	0	0	0	0	0	0
Alternative Mode Reductions - TOTAL			-28	-2	0	-2	-3	-2	-1
Pass-By Reductions - TOTAL			0	0	0	0	0	0	0
New Trips			1,354	106	20	86	123	82	41
Driveway Volumes			3,424	267	51	216	318	209	109

k:\atl_lptio\019686005 the heights at sandy springs - dri traffic study - sandy springs\analysis\[the heights at sandy springs dri #2419 phase 2 analysis .xls]trip generation

Appendix E
Intersection Volume Worksheets

INTERSECTION VOLUME DEVELOPMENT

SR-9 (Roswell Road) at Windsor Parkway AM PEAK HOUR

Description	SR-9 (Roswell Rd) <u>Northbound</u>			SR-9 (Roswell Rd) <u>Southbound</u>			Windsor Pkwy <u>Eastbound</u>			Windsor Pkwy <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes	19	859	282	113	1,073	9	43	24	18	285	29	134
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	7	0	2	3	0	0	0	0	0	0	2
Heavy Vehicle %	0%	1%	0%	2%	0%	0%	0%	0%	0%	0%	0%	1%
Peak Hour Factor	0.91			0.99			0.85			0.96		
Adjustment												
Adjusted 2014 Volumes	19	859	282	113	1073	9	43	24	18	285	29	134
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments	28	1	0	2	48	10	72	30	30	0	17	0
2017 Background Traffic	48	913	299	122	1,187	20	118	55	49	302	48	142
Project Trips												
Trip Distribution IN		30%					5%					10%
Trip Distribution OUT				10%	30%	5%						
Residential Trips	0	6	0	9	26	4	1	0	0	0	0	2
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	6	0	9	26	4	1	0	0	0	0	2
2017 Buildout Total	48	919	299	131	1,213	24	119	55	49	302	48	144

PM PEAK HOUR

Description	SR-9 (Roswell Rd) <u>Northbound</u>			SR-9 (Roswell Rd) <u>Southbound</u>			Windsor Pkwy <u>Eastbound</u>			Windsor Pkwy <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes	4	1,302	385	172	991	3	23	24	7	295	6	108
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	4	0	1	1	0	0	0	0	0	0	0
Heavy Vehicle %	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.95			0.90			0.71			0.92		
Adjustment												
Adjusted 2014 Volumes	4	1302	385	172	991	3	23	24	7	295	6	108
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments	130	-41	0	8	14	55	92	33	58	0	53	0
2017 Background Traffic	134	1,341	409	191	1,066	58	116	58	65	313	59	115
Project Trips												
Trip Distribution IN		30%					5%					10%
Trip Distribution OUT				10%	30%	5%						
Residential Trips	0	25	0	4	12	2	4	0	0	0	0	8
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	25	0	4	12	2	4	0	0	0	0	8
2017 Buildout Total	134	1,366	409	195	1,078	60	120	58	65	313	59	123

INTERSECTION VOLUME DEVELOPMENT

SR-9 (Roswell Road) at Franklin Road AM PEAK HOUR

Description	SR-9 (Roswell Rd) <u>Northbound</u>			SR-9 (Roswell Rd) <u>Southbound</u>			N/A <u>Eastbound</u>			Franklin Rd <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes		1,071	18	56	1,179					37		133
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles		10	0	0	7					0		0
Heavy Vehicle %	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor		0.94			0.93						0.67	
Adjustment												
Adjusted 2014 Volumes	0	1071	18	56	1179	0	0	0	0	37	0	133
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments	0	73	0	0	21	0						
2017 Background Traffic	0	1,210	19	59	1,272	0	0	0	0	39	0	141
Project Trips												
Trip Distribution IN			5%	30%	10%							
Trip Distribution OUT		10%								30%		30%
Residential Trips	0	9	1	6	2	0	0	0	0	26	0	26
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	9	1	6	2	0	0	0	0	26	0	26
2017 Buildout Total	0	1,219	20	65	1,274	0	0	0	0	65	0	167

PM PEAK HOUR

Description	SR-9 (Roswell Rd) <u>Northbound</u>			SR-9 (Roswell Rd) <u>Southbound</u>			N/A <u>Eastbound</u>			Franklin Rd <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes		1,464	58	145	1,224					21		99
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles		4	0	0	1					0		0
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor		0.94			0.97						0.91	
Adjustment												
Adjusted 2014 Volumes	0	1464	58	145	1224	0	0	0	0	21	0	99
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments	0	51	0	0	88	0						
2017 Background Traffic	0	1,605	62	154	1,387	0	0	0	0	22	0	105
Project Trips												
Trip Distribution IN			5%	30%	10%							
Trip Distribution OUT		10%								30%		30%
Residential Trips	0	4	4	25	8	0	0	0	0	12	0	12
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	4	4	25	8	0	0	0	0	12	0	12
2017 Buildout Total	0	1,609	66	179	1,395	0	0	0	0	34	0	117

INTERSECTION VOLUME DEVELOPMENT

SR-9 (Roswell Road) at Belle Isle Road AM PEAK HOUR

Description	SR-9 (Roswell Rd) <u>Northbound</u>			SR-9 (Roswell Rd) <u>Southbound</u>			Belle Isle Rd <u>Eastbound</u>			Belle Isle Rd <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes	22	940	11	32	1,044	25	46	15	7	70	10	96
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	12	0	0	9	0	0	0	0	0	0	0
Heavy Vehicle %	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.90			0.87			0.85			0.68		
Adjustment												
Adjusted 2014 Volumes	22	940	11	32	1044	25	46	15	7	70	10	96
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments	0	73	0	0	21	0	0	0	0	0	0	0
2017 Background Traffic	23	1,071	12	34	1,129	27	49	16	7	74	11	102
Project Trips												
Trip Distribution IN					32%				5%	3%		
Trip Distribution OUT	5%	32%	3%									
Residential Trips	4	28	3	0	6	0	0	0	1	1	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	4	28	3	0	6	0	0	0	1	1	0	0
2017 Buildout Total	27	1,099	15	34	1,135	27	49	16	8	75	11	102

PM PEAK HOUR

Description	SR-9 (Roswell Rd) <u>Northbound</u>			SR-9 (Roswell Rd) <u>Southbound</u>			Belle Isle Rd <u>Eastbound</u>			Belle Isle Rd <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes	38	1,129	47	77	1,096	41	86	37	17	56	14	45
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	4	0	0	0	0	3	0	0	0	0	0
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%
Peak Hour Factor	0.96			0.91			0.90			0.93		
Adjustment												
Adjusted 2014 Volumes	38	1129	47	77	1096	41	86	37	17	56	14	45
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments	0	51	0	0	88	0	0	0	0	0	0	0
2017 Background Traffic	40	1,249	50	82	1,251	44	91	39	18	59	15	48
Project Trips												
Trip Distribution IN					32%				5%	3%		
Trip Distribution OUT	5%	32%	3%									
Residential Trips	2	13	1	0	26	0	0	0	4	2	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	2	13	1	0	26	0	0	0	4	2	0	0
2017 Buildout Total	42	1,262	51	82	1,277	44	91	39	22	61	15	48

INTERSECTION VOLUME DEVELOPMENT

Franklin Road at High Point Road AM PEAK HOUR

Description	High Point Rd <u>Northbound</u>			High Point Rd <u>Southbound</u>			Franklin Rd <u>Eastbound</u>			N/A <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes	52	161			176	36	71		35			
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	1			0	0	0		0			
Heavy Vehicle %	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.89			0.77			0.72					
Adjustment												
Adjusted 2014 Volumes	52	161	0	0	176	36	71	0	35	0	0	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments												
2017 Background Traffic	55	171	0	0	187	38	75	0	37	0	0	0
Project Trips												
Trip Distribution IN	7%					8%						
Trip Distribution OUT							8%		7%			
Residential Trips	1	0	0	0	0	2	7	0	6	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	1	0	0	0	0	2	7	0	6	0	0	0
2017 Buildout Total	56	171	0	0	187	40	82	0	43	0	0	0

PM PEAK HOUR

Description	High Point Rd <u>Northbound</u>			High Point Rd <u>Southbound</u>			Franklin Rd <u>Eastbound</u>			N/A <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes	46	126			185	59	101		93			
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	0			0	0	0		0			
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.88			0.81			0.84					
Adjustment												
Adjusted 2014 Volumes	46	126	0	0	185	59	101	0	93	0	0	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments												
2017 Background Traffic	49	134	0	0	196	63	107	0	99	0	0	0
Project Trips												
Trip Distribution IN	7%					8%						
Trip Distribution OUT							8%		7%			
Residential Trips	6	0	0	0	0	7	3	0	3	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	6	0	0	0	0	7	3	0	3	0	0	0
2017 Buildout Total	55	134	0	0	196	70	110	0	102	0	0	0

INTERSECTION VOLUME DEVELOPMENT

SR-9 (Roswell Road) at Driveway #1 AM PEAK HOUR

Description	SR-9 (Roswell Rd) <u>Northbound</u>			SR-9 (Roswell Rd) <u>Southbound</u>			N/A <u>Eastbound</u>			Driveway #1 <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes		1,036			1,216							
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles												
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor												
Adjustment												
Adjusted 2014 Volumes	0	1036	0	0	1216	0	0	0	0	0	0	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments	0	73	0	0	21	0						
2017 Background Traffic	0	1,172	0	0	1,311	0	0	0	0	0	0	0
Project Trips												
Trip Distribution IN		5%	40%	10%								
Trip Distribution OUT					30%					15%		10%
Residential Trips	0	3	20	5	65	0	0	0	0	32	0	22
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	3	20	5	65	0	0	0	0	32	0	22
2017 Buildout Total	0	1,175	20	5	1,376	0	0	0	0	32	0	22

PM PEAK HOUR

Description	SR-9 (Roswell Rd) <u>Northbound</u>			SR-9 (Roswell Rd) <u>Southbound</u>			N/A <u>Eastbound</u>			Driveway #1 <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes		1,433			1,245							
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles												
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor												
Adjustment												
Adjusted 2014 Volumes	0	1433	0	0	1245	0	0	0	0	0	0	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments	0	51	0	0	88	0						
2017 Background Traffic	0	1,572	0	0	1,409	0	0	0	0	0	0	0
Project Trips												
Trip Distribution IN		5%	40%	10%								
Trip Distribution OUT					30%					15%		10%
Residential Trips	0	10	84	21	33	0	0	0	0	16	0	11
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	10	84	21	33	0	0	0	0	16	0	11
2017 Buildout Total	0	1,582	84	21	1,442	0	0	0	0	16	0	11

INTERSECTION VOLUME DEVELOPMENT

Franklin Road at Driveway #2 AM PEAK HOUR

Description	Driveway #2 <u>Northbound</u>			N/A <u>Southbound</u>			Franklin Rd <u>Eastbound</u>			Franklin Rd <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes								74			88	
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles												
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor												
Adjustment												
Adjusted 2014 Volumes	0	0	0	0	0	0	0	74	0	0	88	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments												
2017 Background Traffic	0	0	0	0	0	0	0	79	0	0	93	0
Project Trips												
Trip Distribution IN								20%	15%	7%		
Trip Distribution OUT	25%		7%								35%	
Residential Trips	54	0	15	0	0	0	0	10	8	4	76	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	54	0	15	0	0	0	0	10	8	4	76	0
2017 Buildout Total	54	0	15	0	0	0	0	89	8	4	169	0

PM PEAK HOUR

Description	Driveway #2 <u>Northbound</u>			N/A <u>Southbound</u>			Franklin Rd <u>Eastbound</u>			Franklin Rd <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes								203			105	
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles												
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor												
Adjustment												
Adjusted 2014 Volumes	0	0	0	0	0	0	0	203	0	0	105	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments												
2017 Background Traffic	0	0	0	0	0	0	0	215	0	0	111	0
Project Trips												
Trip Distribution IN								20%	15%	7%		
Trip Distribution OUT	25%		7%								35%	
Residential Trips	27	0	8	0	0	0	0	42	31	15	38	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	27	0	8	0	0	0	0	42	31	15	38	0
2017 Buildout Total	27	0	8	0	0	0	0	257	31	15	149	0

INTERSECTION VOLUME DEVELOPMENT

Franklin Road at Driveway #3 AM PEAK HOUR

Description	Driveway #3 <u>Northbound</u>			N/A <u>Southbound</u>			Franklin Rd <u>Eastbound</u>			Franklin Rd <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes								74			88	
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles												
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor												
Adjustment												
Adjusted 2014 Volumes	0	0	0	0	0	0	0	74	0	0	88	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments												
2017 Background Traffic	0	0	0	0	0	0	0	79	0	0	93	0
Project Trips												
Trip Distribution IN								10%	10%	5%	7%	
Trip Distribution OUT	20%		5%					7%			15%	
Residential Trips	43	0	11	0	0	0	0	20	5	3	36	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	43	0	11	0	0	0	0	20	5	3	36	0
2017 Buildout Total	43	0	11	0	0	0	0	99	5	3	129	0

PM PEAK HOUR

Description	Driveway #3 <u>Northbound</u>			N/A <u>Southbound</u>			Franklin Rd <u>Eastbound</u>			Franklin Rd <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes								203			105	
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles												
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor												
Adjustment												
Adjusted 2014 Volumes	0	0	0	0	0	0	0	203	0	0	105	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments												
2017 Background Traffic	0	0	0	0	0	0	0	215	0	0	111	0
Project Trips												
Trip Distribution IN								10%	10%	5%	7%	
Trip Distribution OUT	20%		5%					7%			15%	
Residential Trips	22	0	5	0	0	0	0	29	21	10	31	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	22	0	5	0	0	0	0	29	21	10	31	0
2017 Buildout Total	22	0	5	0	0	0	0	244	21	10	142	0

INTERSECTION VOLUME DEVELOPMENT

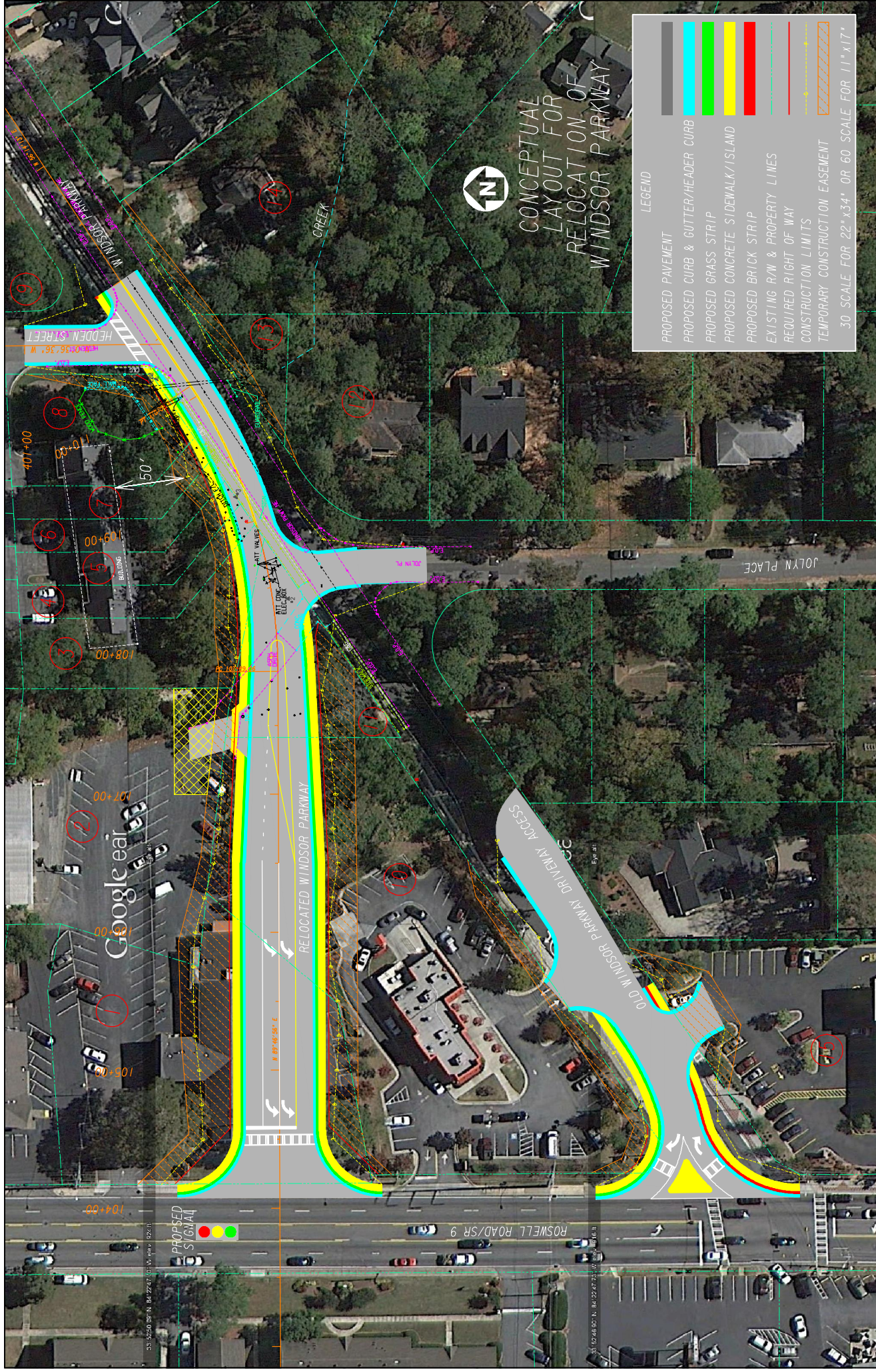
Franklin Road at Driveway #4 AM PEAK HOUR

Description	Driveway #4 <u>Northbound</u>			N/A <u>Southbound</u>			Franklin Rd <u>Eastbound</u>			Franklin Rd <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes								74			88	
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles												
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor												
Adjustment												
Adjusted 2014 Volumes	0	0	0	0	0	0	0	74	0	0	88	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments												
2017 Background Traffic	0	0	0	0	0	0	0	79	0	0	93	0
Project Trips												
Trip Distribution IN									10%	3%	12%	
Trip Distribution OUT	15%		3%					12%				
Residential Trips	32	0	6	0	0	0	0	26	5	2	6	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	32	0	6	0	0	0	0	26	5	2	6	0
2017 Buildout Total	32	0	6	0	0	0	0	105	5	2	99	0

PM PEAK HOUR

Description	Driveway #4 <u>Northbound</u>			N/A <u>Southbound</u>			Franklin Rd <u>Eastbound</u>			Franklin Rd <u>Westbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2014 Traffic Volumes								203			105	
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles												
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor												
Adjustment												
Adjusted 2014 Volumes	0	0	0	0	0	0	0	203	0	0	105	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
New Road Adjustment												
Other Proposed Developments												
2017 Background Traffic	0	0	0	0	0	0	0	215	0	0	111	0
Project Trips												
Trip Distribution IN									10%	3%	12%	
Trip Distribution OUT	15%		3%					12%				
Residential Trips	16	0	3	0	0	0	0	13	21	6	25	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	16	0	3	0	0	0	0	13	21	6	25	0
2017 Buildout Total	16	0	3	0	0	0	0	228	21	6	136	0

Appendix F
DRI #2290 Signal and Lane Configuration



CONCEPTUAL
LAYOUT FOR
RELOCATION OF
WINDSOR PARKWAY

LEGEND	
	PROPOSED PAVEMENT
	PROPOSED CURB & GUTTER/HEADER CURB
	PROPOSED GRASS STRIP
	PROPOSED CONCRETE SIDEWALK/ISLAND
	PROPOSED BRICK STRIP
	EXISTING R/W & PROPERTY LINES
	REQUIRED RIGHT OF WAY
	CONSTRUCTION LIMITS
	TEMPORARY CONSTRUCTION EASEMENT
30 SCALE FOR 22' x 34" OR 60 SCALE FOR 11' x 17"	

ENGINEER

FORESITE
group

ForeSite Group, Inc.
5185 Peachtree Pkwy.
Suite 200
Atlanta, GA 30328
917.703.3681
www.foresitegroup.com

DEVELOPER

Core Property Capital
3000 Peachtree Rd.
Suite 1500
Atlanta, GA 30305
404.506.8770
CONTACT: Mr. John Graham

**SANDY SPRINGS
GATEWAY
TEMPORARY SIGNAL**

ROSWELL ROAD AND WINDSOR PARKWAY
SANDY SPRINGS, GA

PROJECT:

SCALE:

REVISIONS

DATE

PROJECT MANAGER: JAK
DRAWING BY: CMR
ASSOCIATION: SANDY SPRINGS, GA
DATE: 08/20/24
TITLE: 1" = 30'

FUTURE PLAN

SD-07

COMMENTS:

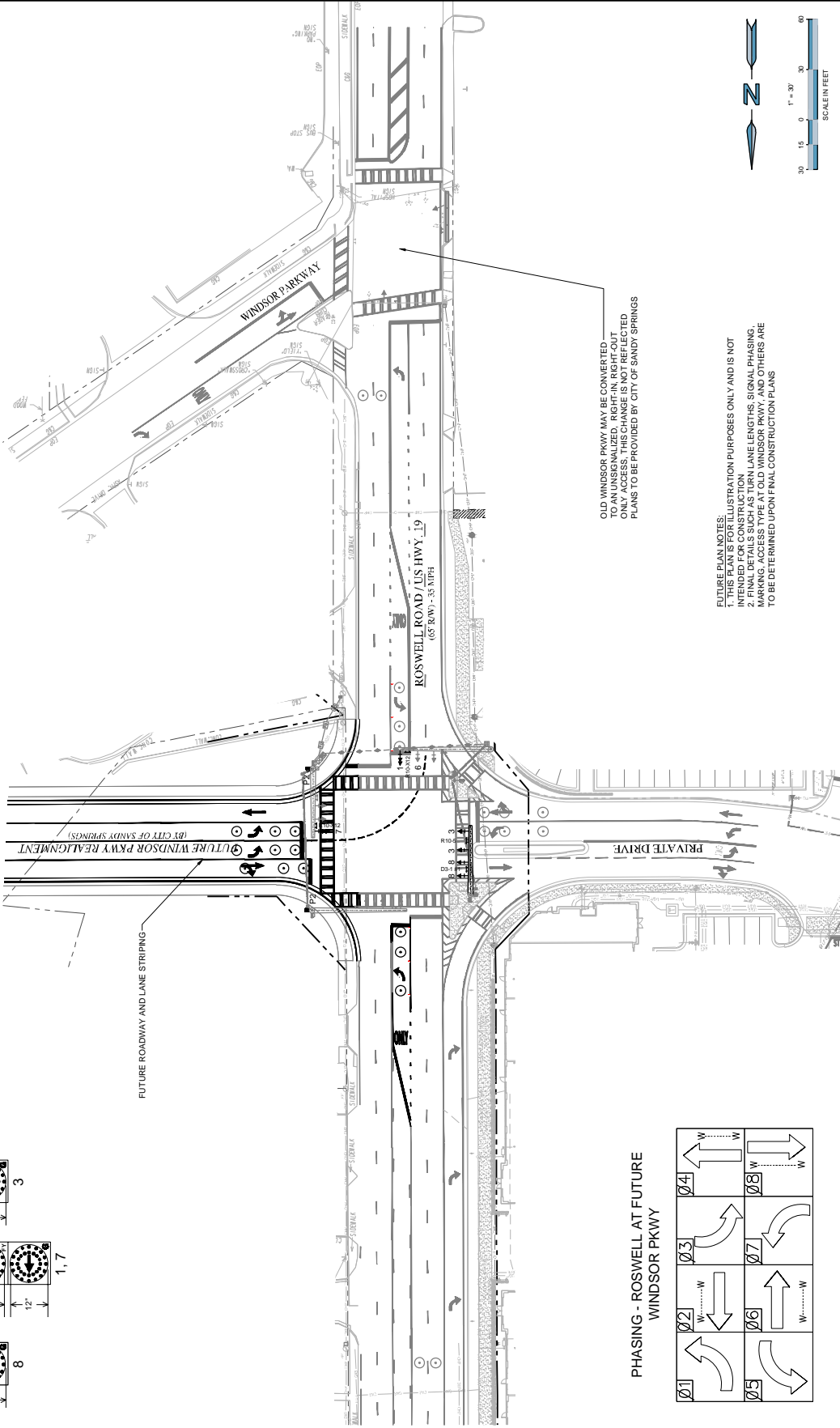
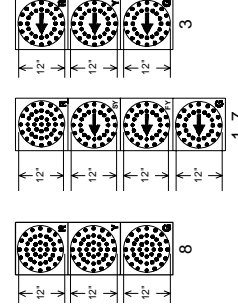
JOBFILE NUMBER: 038.077

SIGNALS

Roswell Rd
DS-1 #1 24"x28"

Windsor Pkwy
DS-1 #2 24"x28"

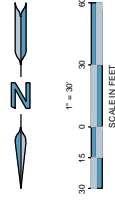
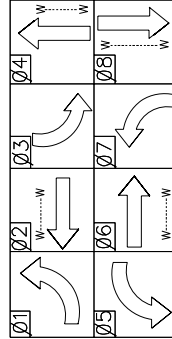
Sandy Springs Gateway
DS-1 #3 24"x144"



OLD WINDSOR PKWY MAY BE CONVERTED TO AN UNSIGNALIZED, RIGHT-IN, RIGHT-OUT ONLY ACCESS. THIS CHANGE IS NOT REFLECTED IN THIS PLAN. PLANS TO BE PROVIDED BY CITY OF SANDY SPRINGS

FUTURE PLAN NOTES:
1. THIS PLAN IS FOR ILLUSTRATION PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION.
2. FINAL DETAILS SUCH AS TURN LANE LENGTHS, SIGNAL PHASING, MARKING, ACCESS TYPE AT OLD WINDSOR PKWY, AND OTHERS ARE TO BE DETERMINED UPON FINAL CONSTRUCTION PLANS.

PHASING - ROSWELL AT FUTURE WINDSOR PKWY



Appendix G
DRI #2290 Project Trips

Figure 9: Project Trips - Phase 2

