Transportation Analysis

Lenox Towers DRI
DRI# 1290
City of Atlanta, Georgia

Prepared for:
Lenox Towers

February 2007
019561001

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EXECUTIVE SUMMARY

This report presents the analysis of the anticipated traffic impacts of the proposed Lenox Towers development, an approximate 700-unit residential addition to the existing Lenox Square Mall site. Lenox Square Mall is an existing 1.7 Million square foot retail shopping mall located in the southwest quadrant of the Peachtree Road @ Lenox Road intersection in the Buckhead Community of the City of Atlanta, Georgia. This report is being prepared as part of a submittal requesting a height variance from the City of Atlanta. Because the project will contain over 400 residential units, 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.

The proposed development is expected to consist of two separate residential towers located in the southwest corner of the Lenox Square Mall site (along the north side of East Paces Ferry Road). The first tower is to consist of 296 residential condominium units; the second tower is to be located immediately west of the first tower, and will consist of 404 residential condominium units. The development is scheduled to be completed in overlapping phases by year 2010.

The results of the detailed intersection analysis for the 2010 No-Build (includes 2% per year background traffic growth and a portion of the traffic associated with the nearby CityPlace at Buckhead development - DRI #1067) and 2010 Build Conditions (includes trips generated by the proposed Lenox Towers development) identify that no offsite geometric improvements are necessary to maintain the Level of Service (LOS) standard, as defined by GRTA, within the study network. Optimized signal timings, however, will be necessary to maintain the standard of LOS D.

The No-Build and Build recommendations are provided below.

Projected 2010 No-Build recommendations (excludes the Lenox Towers project traffic):

Lenox Road @ East Paces Ferry Road

- No additional improvements necessary.

Peachtree Road @ Lenox Square Parkway

- Optimize traffic signal timings.

Projected 2010 Build recommendations (includes the Lenox Towers project traffic):

Lenox Road @ East Paces Ferry Road

- No additional improvements necessary.

Peachtree Road @ Lenox Square Parkway

- No additional improvements necessary.

East Paces Ferry Road @ Lenox Square Parkway

- Re-align existing Lenox Square Parkway to intersect with East Paces Ferry Road at MARTA bus entrance, creating a four-legged, stop-controlled intersection.

East Paces Ferry Road @ Driveway #1

- Construct the southbound approach (exiting the development) as a single lane approach.

Lenox Square Parkway @ Driveway #2

- Construct the northbound approach (exiting the development) as a single lane approach.

1.0 PROJECT DESCRIPTION

1.1 Introduction

This report presents the analysis of the anticipated traffic impacts of the proposed Lenox Towers development, an approximate 700-unit residential addition to the existing Lenox Square Mall site. Lenox Square Mall is an existing 1.7 Million square foot retail shopping mall located in the southwest quadrant of the Peachtree Road @ Lenox Road intersection in the Buckhead Community of the City of Atlanta, Georgia. This report is being prepared as part of a submittal requesting a height variance from the City of Atlanta. Because the project will contain over 400 residential units, 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.

The proposed development is expected to consist of two separate residential towers located in the southwest corner of the Lenox Square Mall site (along the north side of East Paces Ferry Road). The first tower is to consist of 296 residential condominium units; the second tower is to be located immediately west of the first tower, and will consist of 404 residential condominium units. The development is scheduled to be completed in overlapping phases by year 2010.

A summary of the proposed land-uses and densities can be found below in **Table 1.**

Table 1
Lenox Towers DRI
Proposed Land Use

High-Rise Condominium	700 dwelling units

Figure 1 and **Figure 2** provide a location map and an aerial photograph of the site.

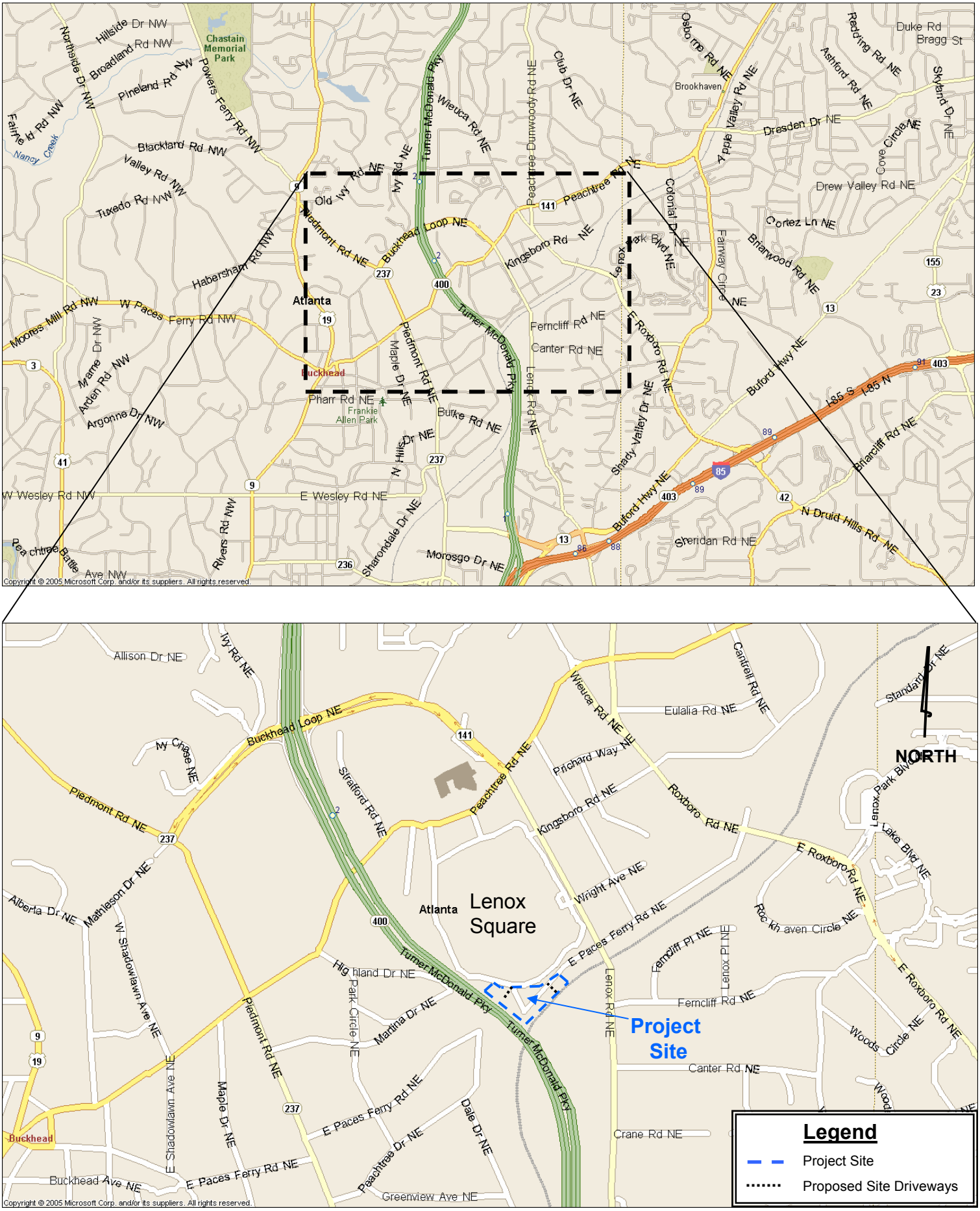
1.2 Site Plan Review

The development site plan consists of two planned structures bordered by Lenox Square Parkway to the north, East Paces Ferry Road to the south, and GA 400 to the west. Structured parking will be provided within each tower (518 spaces in Tower 1, and 689 spaces in Tower 2), including 50 spaces in each tower to replace existing on-site parking for Lenox Square Mall that will be lost due to construction and realignment of Lenox Square Parkway.

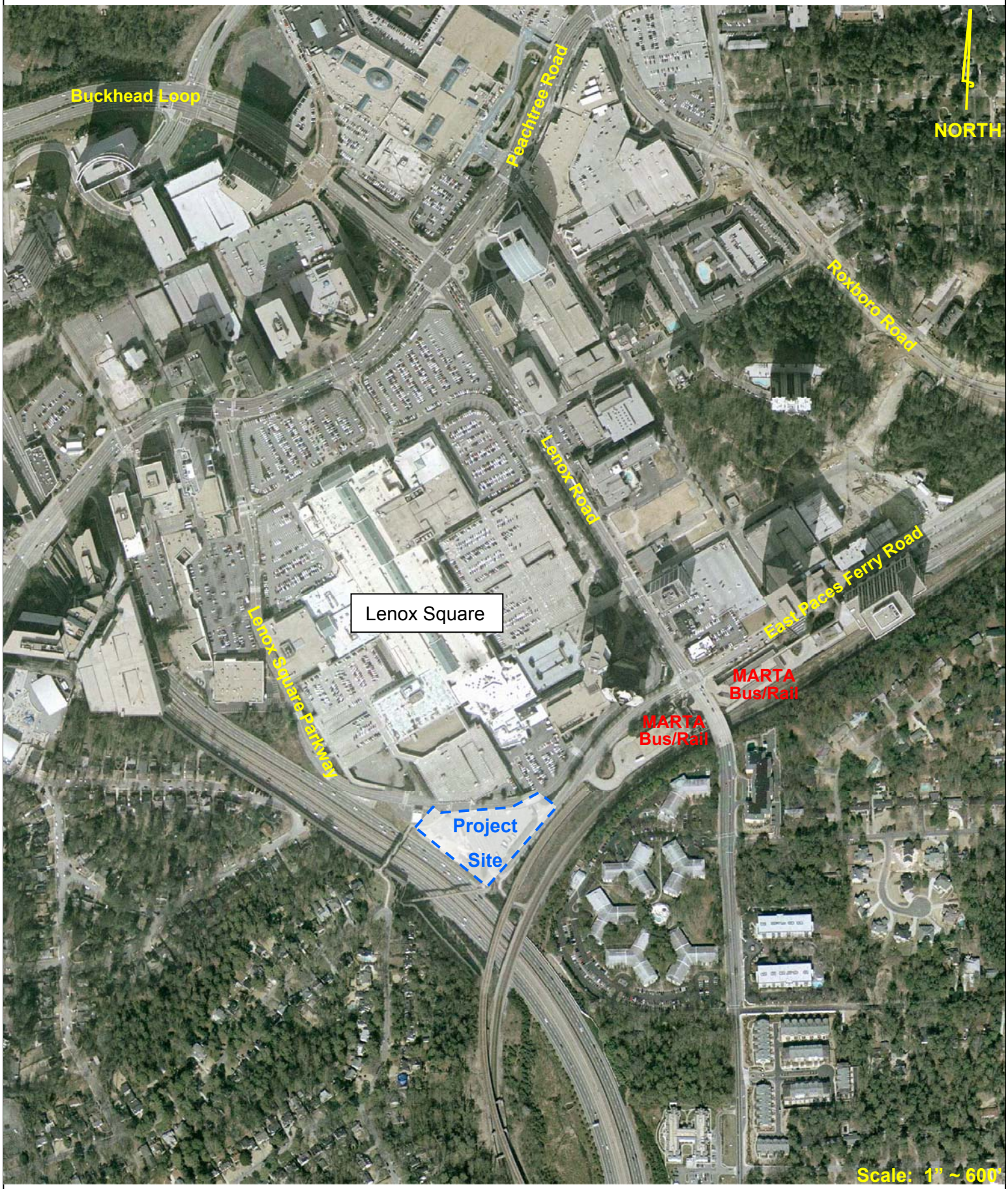
Figure 3 is a small-scale copy of the site plan. A full-size site plan consistent with GRTA's Site Plan Guidelines is also being submitted as part of the DRI Review Package.

1.3 Site Access

Vehicular access to the development is proposed in two driveway locations. Access to Tower 1 is proposed along East Paces Ferry Road, while access to Tower 2 is proposed along Lenox Square Parkway. Lenox Square Parkway will be realigned to accommodate the two residential towers. With the currently planned configuration, the access to Tower 1 will be located in the approximate location of the existing bridge from East Paces Ferry Road under Lenox Square Parkway. The access to Tower 2 will be located in the approximate location of the existing SunTrust Bank drive-through. Loading and service will be provided for both towers via East Paces Ferry Road; however, vehicular connection will not be possible between the two structures. All site access driveways are proposed to be full-movement.



Kimley-Horn and Associates, Inc.	**Lenox Towers DRI Transportation Analysis**	**Site Location Map**	**Figure 1**



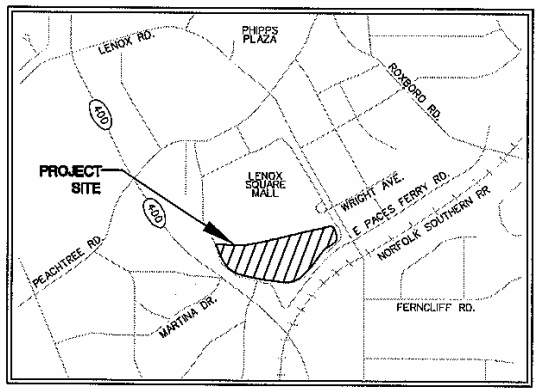
Kimley-Horn and Associates, Inc.	Lenox Towers DRI Transportation Analysis	Aerial Photograph	Figure 2

Kimley-Horn and Associates, Inc.

Lenox Towers DRI
Transportation Analysis

Site Plan

Figure 3



LOCATION MAP
NOT TO SCALE

Kimley-Horn and Associates, Inc.
817 WEST PEACHTREE ST. NW - SUITE 601, ATLANTA, GEORGIA 30308
PHONE: (404) 419-8700 FAX: (404) 419-8701

PROJECT: LENON SQUARE
LENOX SQUARE & GEORGIA 400

DRI SITE PLAN

THE RELATED GROUP OF FLORDIA

JOB NUMBER:	SCALE:	DATE:	SHEET:
019561000	1"=150'	2/07/07	1

NOTE: Lenox Square Parkway is a private facility and final alignment and connection to East Paces Ferry Road will be coordinated with Simon Properties and the City of Atlanta. Currently, an alternate alignment to the one presented in the DRI is being reviewed for feasibility.

1.4 Bicycle and Pedestrian Facilities

Pedestrian facilities are proposed to provide connection to Lenox Square Mall and the Lenox MARTA station located to the east, along East Paces Ferry Road.

1.5 Transit Facilities

The proposed development is located approximately 1000' southwest of the Lenox MARTA station at the intersection of Lenox Road and East Paces Ferry Road. This station lies on the Northeast MARTA rail line (10 – 20 minute headways). Three MARTA bus routes operate from this station including the following: Route 23 – Lenox / Arts Center (10-minute headways), Route 25 – Lenox / Chamblee (30-minute headways), and Route 47 – I-85 Access Road / Woodcock Boulevard (35-65 minute headways). See route maps included in the Appendix for detailed route descriptions.

The BUC, a bus service provided free to riders in the Buckhead area, offers three routes; the red route (11:30am to 1:30pm only), green route, and blue route, all which operate during weekdays and have headways between eight and fifteen minutes. The green and blue lines both make stops at the Lenox MARTA rail station (stop 12), the Atlanta Plaza/Resurgens Plaza/Alexan Lenox (stop 13), and The Pinnacle/Lenox Marketplace/Two Live Oak (stop 14) in the vicinity of the proposed development. The red line which only operates from 11:30am to 1:30pm makes a stop at the Atlanta Plaza/Resurgens (stop D). Saturday service provides stops at the Lenox MARTA rail station and the Lenox Mall Food Court every 30 minutes. See route maps included in the Appendix for detailed route descriptions.

2.0 TRAFFIC ANALYSES METHODOLOGY AND ASSUMPTIONS

2.1 Growth Rate

Background traffic is defined as expected traffic on the roadway network in future years absent the construction and opening of the proposed project. Historical traffic count data from the Georgia DOT was reviewed for the area surrounding the proposed development. Given the historical growth rates and discussion with GRTA, ARC, and the City of Atlanta, a growth rate of 2% per year along all roadways was agreed upon during the Pre-Application meeting. Additionally, a percentage of the project traffic associated with the nearby CityPlace @ Buckhead development (DRI # 1067) was included in the background traffic – consistent with the GRTA Letter of Understanding.

2.2 Traffic Data Collection

Year 2006 weekday peak hour turning movement counts were conducted on Tuesday, November 8, 2006 at two signalized intersections during the AM and PM peak periods. The morning and afternoon peak hours of the two intersections were 8:00 AM to 9:00 AM and 5:00 PM to 6:00 PM, respectively. The inclusion of these study intersections is discussed further in *Section 3.4 Study Network Determination*.

All raw count data is included in the Appendix.

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 6.0*.

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 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.

3.0 STUDY NETWORK

3.1 Gross Trip Generation

As stated earlier, the proposed development is expected to consist of approximately 700 high-rise condominium units.

Traffic for the development was calculated using equations contained in the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, Seventh Edition, 2003*. Average rates were used only when equations were not provided. Gross trips generated are displayed below in **Table 2**.

Table 2
Lenox Towers DRI
Gross Trip Generation

Land Use	ITE Code	Daily Traffic		AM Peak Hour		PM Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
Build-Out (Year 2010)							
700 DU High-Rise Condominium	*232*	1,432	1,432	44	188	157	96
Total		**1,432**	**1,432**	**44**	**188**	**157**	**96**

3.2 Trip Distribution

The directional distribution and assignment of new project trips was based on a review of the land uses in the area, engineering judgment, and methodology discussions with GRTA 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 GRTA's Letter of Understanding.

3.4 Study Network Determination

A general study area was determined using the 7% rule. This rule recommends that all intersections and segments 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) be considered for analysis. While only one intersection (Lenox Road @ East Paces Ferry Road) is required for analysis using the 7% rule, the study area was extended to include the intersection of Peachtree Road @ Lenox Square Parkway. The general study area was agreed upon during the Pre-Application Meeting with GRTA staff, and includes the following intersections:

- Lenox Road @ East Paces Ferry Road (Signalized)
- Peachtree Road @ Lenox Square Parkway (Signalized)

Each of the above listed intersections was analyzed for the Existing 2006 Conditions, the 2010 No-Build Conditions, and the 2010 Build Conditions. The 2010 No-Build Conditions represents the existing traffic volumes grown at 2.0% per year for four years, as well as a percentage of traffic associated with the anticipated build-out of the previously approved CityPlace @ Buckhead development (DRI #1067) located along East Paces Ferry Road just east of the proposed Lenox Towers development. The 2010 Build Conditions adds the projected trips associated with the Lenox Towers development to the 2010 No-Build Conditions.

The additional proposed site access points listed below were only analyzed for the 2010 Build Conditions:

- East Paces Ferry Road @ Driveway #1 (Unsignalized)
- Lenox Square Parkway @ Driveway #2 (Unsignalized)

3.5 Existing Facilities

Lenox Road

- Lenox Road, in the vicinity of the proposed development, is a five-lane facility consisting of two travel lanes in each direction (northbound and southbound), as well as a center two-way left-turn lane. Lenox Road provides access to GA 400 to the north and Buford Highway to the south.

Peachtree Road

- Peachtree Road, in the vicinity of the proposed development, is a six-lane facility consisting of three travel lanes in each direction (eastbound and westbound). Peachtree Road is a state route (SR 141), and provides connection to Midtown and Downtown Atlanta to the southwest, and DeKalb County to the northeast.

Lenox Square Parkway

- Lenox Square Parkway is an existing private facility that serves as a 'ring road' around Lenox Square Mall. Lenox Square Parkway is a four-lane facility with two travel lanes in each direction and provides access to the structured and surface parking for the existing retail, restaurant, and hotel uses on the mall property.

East Paces Ferry Road

- East Paces Ferry Road, in the vicinity of the proposed development, is a two-lane facility with one travel lane in each direction. East of Lenox Road, East Paces Ferry Road expands to a four-lane facility. East Paces Ferry Road provides access to the Lenox MARTA station.

Study roadway characteristics are listed below in **Table 3**.

Table 3
Lenox Towers DRI
Study Roadway Characteristics

Roadway	Road Type	Number of Lanes	Posted Speed Limit (MPH)	GDOT Functional Classification
Lenox Road	Two-Way	5	35	Urban Minor Arterial
Peachtree Road	Two-Way	6	35	Urban Principal Arterial
Lenox Square Parkway	Two-Way	4	25	Urban Local Street
East Paces Ferry Road	Two-Way	2	25	Urban Local Street

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, Seventh Edition, 2003*, using equations where available.

Alternative transportation (walking, bicycle, and transit) mode reductions were taken at 10% for the proposed development, consistent with the GRTA Letter of Understanding.

The total (net) trips generated and analyzed in the report are listed in **Table 4**.

Table 4
Lenox Towers DRI
Net Trip Generation

	Daily Traffic		AM Peak Hour		PM Peak Hour	
	Enter	Exit	Enter	Exit	Enter	Exit
Build-Out (Year 2013)						
Gross Project Trips	**1,432**	**1,432**	**44**	**188**	**157**	**96**
Mixed-Use Reduction	*-0*	*-0*	*-0*	*-0*	*-0*	*-0*
Alternative Mode Reduction	*-143*	*-143*	*-4*	*-19*	*-16*	*-10*
Pass-By Reduction	*-0*	*-0*	*-0*	*-0*	*-0*	*-0*
Net New Trips	**1,289**	**1,289**	**40**	**169**	**141**	**86**

5.0 TRIP DISTRIBUTION AND ASSIGNMENT

New trips were distributed onto the roadway network using the percentages agreed to during methodology discussions with GRTA staff. **Figure 4** displays the expected residential trip percentages for the development throughout the roadway network. These percentages were applied to the new trips generated by the development (see Table 4, above), and the volumes were assigned to the roadway network. The expected peak hour turning movements generated by the proposed development are shown in **Figure 5**.

6.0 TRAFFIC ANALYSIS

6.1 Existing Traffic

The observed existing peak hour traffic volumes (as well as pedestrian volumes and heavy vehicle factors) were input in *Synchro 6.0*, along with the existing traffic signal cycle lengths, splits, and offsets, and an Existing Conditions analysis was performed. The results are displayed below in **Table 5**.

The existing traffic volumes were then adjusted by eliminating traffic associated with the existing surface parking lot and office building. The adjusted existing volumes were utilized in volume projections for No-Build and Build Conditions.

The existing peak hour traffic volumes are shown in **Figure 6**.

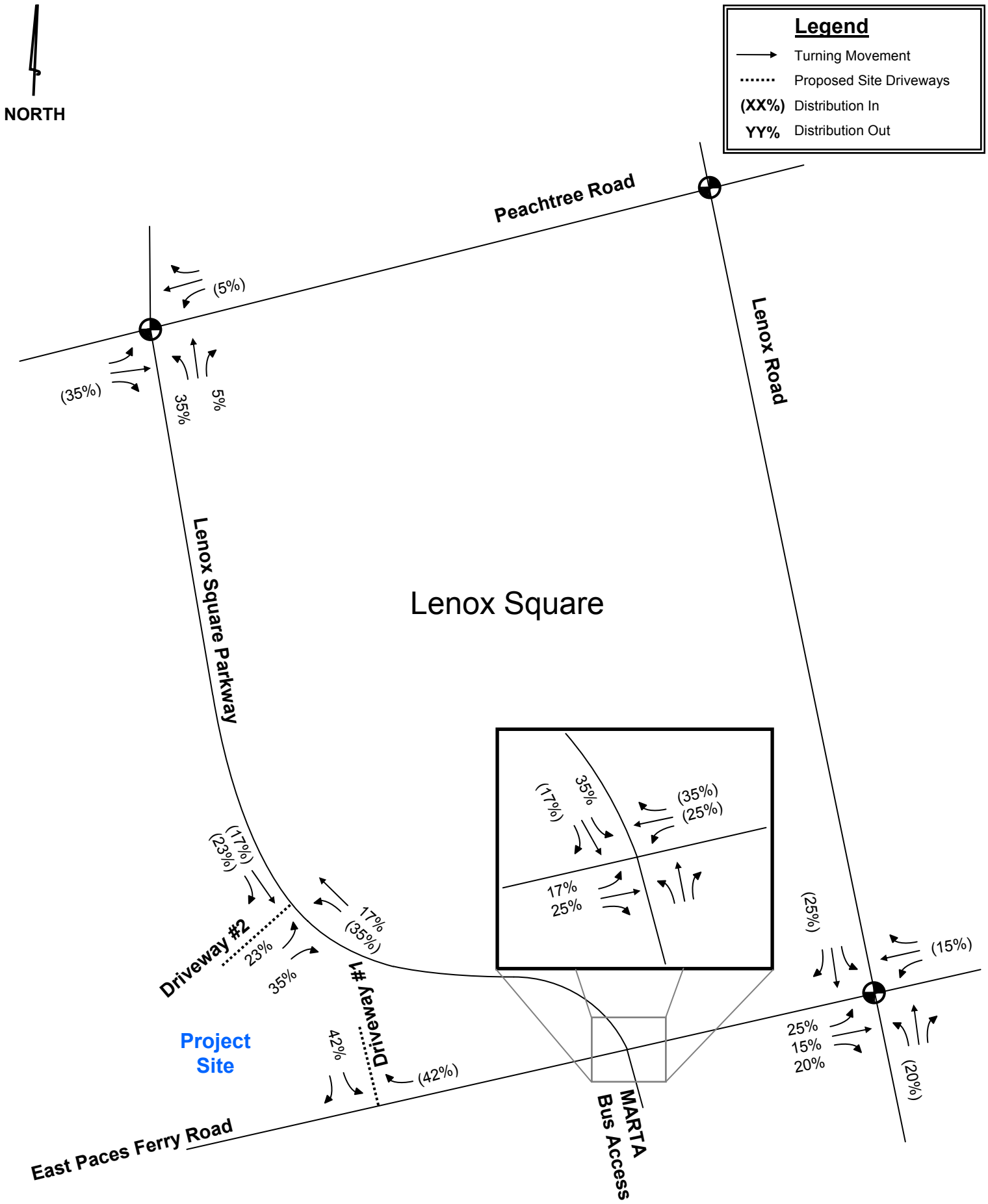
Table 5
Lenox Towers DRI
Existing 2006 Intersection Levels of Service
(delay in seconds)

	Intersection	Control	LOS Standard	AM Peak Hour	PM Peak Hour
1	East Paces Ferry Road @ Lenox Road	Signalized	D	C (26.0)	D (36.0)
2	Lenox Square Parkway @ Peachtree Road	Signalized	D	B (19.7)	D (42.1)

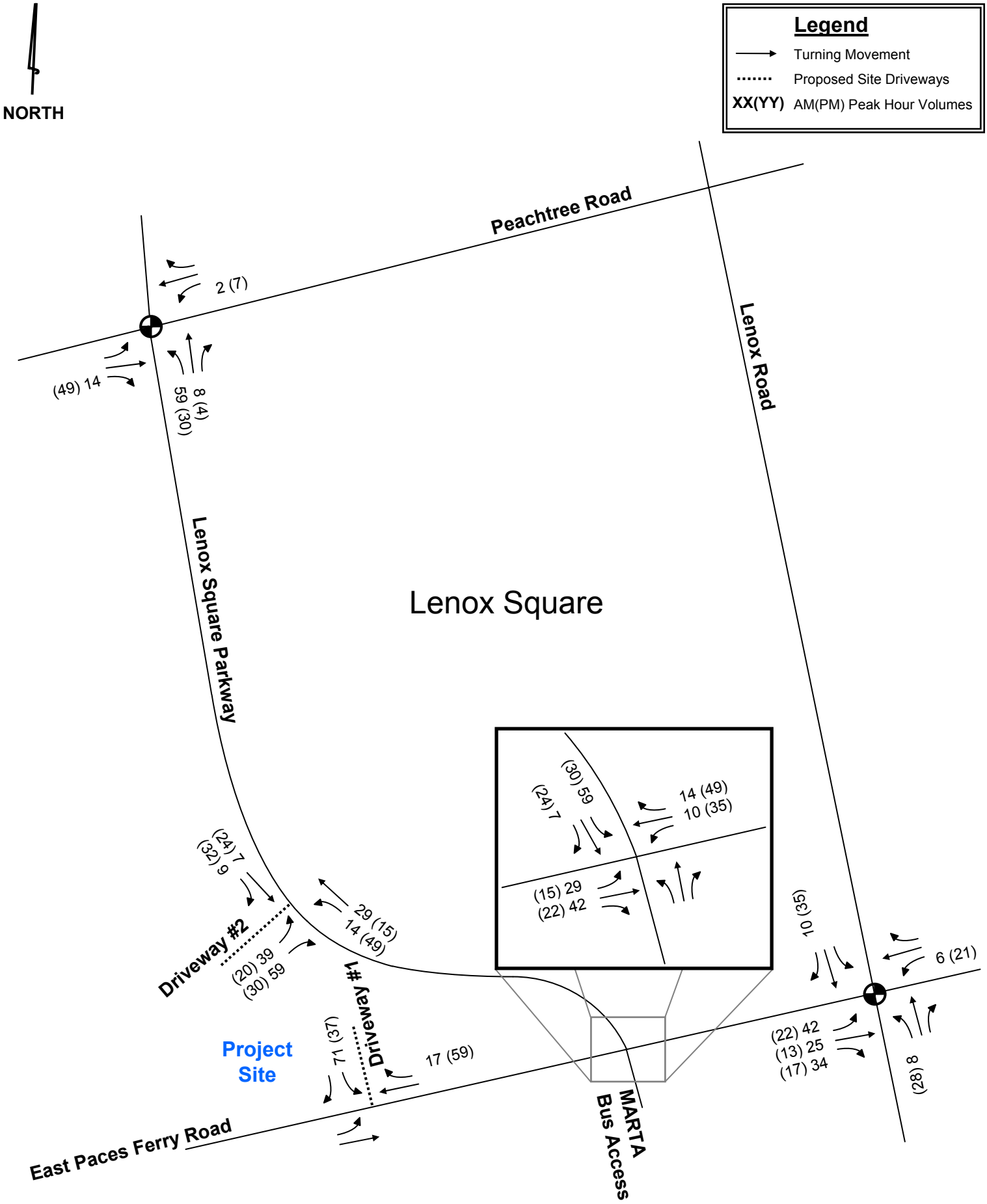
Both study intersections currently operate at or above the acceptable Level of Service standard (LOS D) during both the AM and PM Peak Hour.

6.2 2010 No-Build Traffic

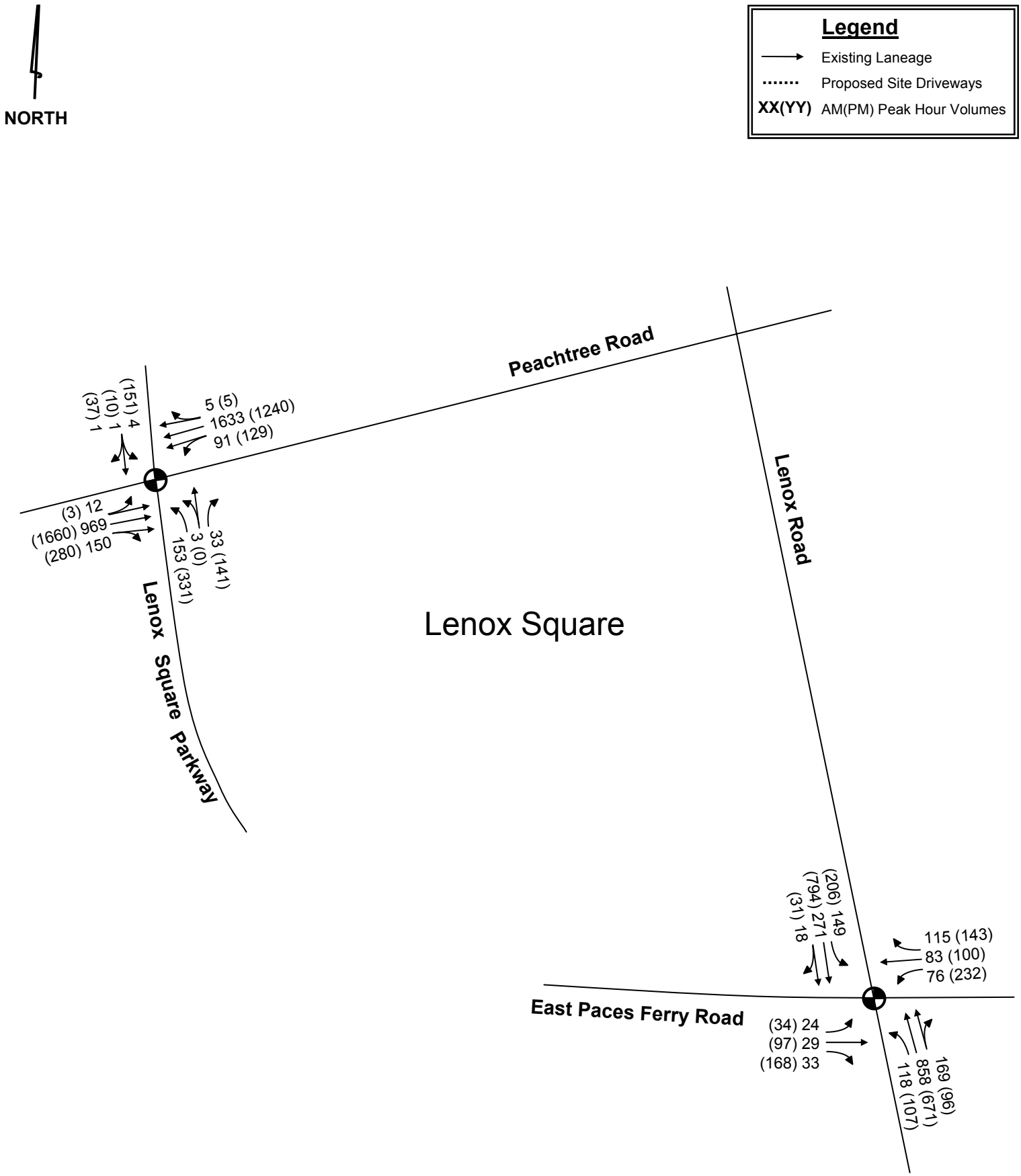
To account for the growth expected due to other projects in the vicinity of the proposed development, the existing traffic volumes were grown at 2.0% per year, for four years, along all roadway links within the study network. Additionally, a percentage of traffic associated with the anticipated build-out of the previously approved CityPlace @ Buckhead development (DRI #1067) located along East Paces Ferry Road just east of the proposed Lenox Towers development was added. These volumes and the existing signal cycle lengths, splits, and offsets were input into *Synchro 6.0.* Analyses of the projected 2010 No-Build Conditions were performed. The results are displayed below in **Table 6.**



Kimley-Horn and Associates, Inc.	**Lenox Towers DRI Transportation Analysis**	**Trip Distribution**	**Figure 4**



Kimley-Horn and Associates, Inc.	Lenox Towers DRI Transportation Analysis	Project Trips	Figure 5



Kimley-Horn and Associates, Inc.	**Lenox Towers DRI Transportation Analysis**	**Existing 2006 Conditions**	**Figure 6**

Table 6
Lenox Towers DRI
2010 No-Build Intersection Levels of Service
(delay in seconds)

	Intersection	Control	LOS Standard	AM Peak Hour	PM Peak Hour
1	East Paces Ferry Road @ Lenox Road	Signalized	D	C (32.6)	D (48.7)
2	Lenox Square Parkway @ Peachtree Road	Signalized	D	D (37.1)	E (55.4)

As displayed in the table above, the intersection of Peachtree Road @ Lenox Square Parkway is projected to operate below the established standard of LOS D. Network splits and offsets were optimized, and the resulting Levels of Service are displayed below in **Table 7.**

Table 7
Lenox Towers DRI
2010 No-Build Intersection Levels of Service IMPROVED
(delay in seconds)

	Intersection	Control	LOS Standard	AM Peak Hour	PM Peak Hour
1	East Paces Ferry Road @ Lenox Road	Signalized	D	C (28.5)	D (39.7)
2	Lenox Square Parkway @ Peachtree Road	Signalized	D	D (40.2)*	D (44.6)

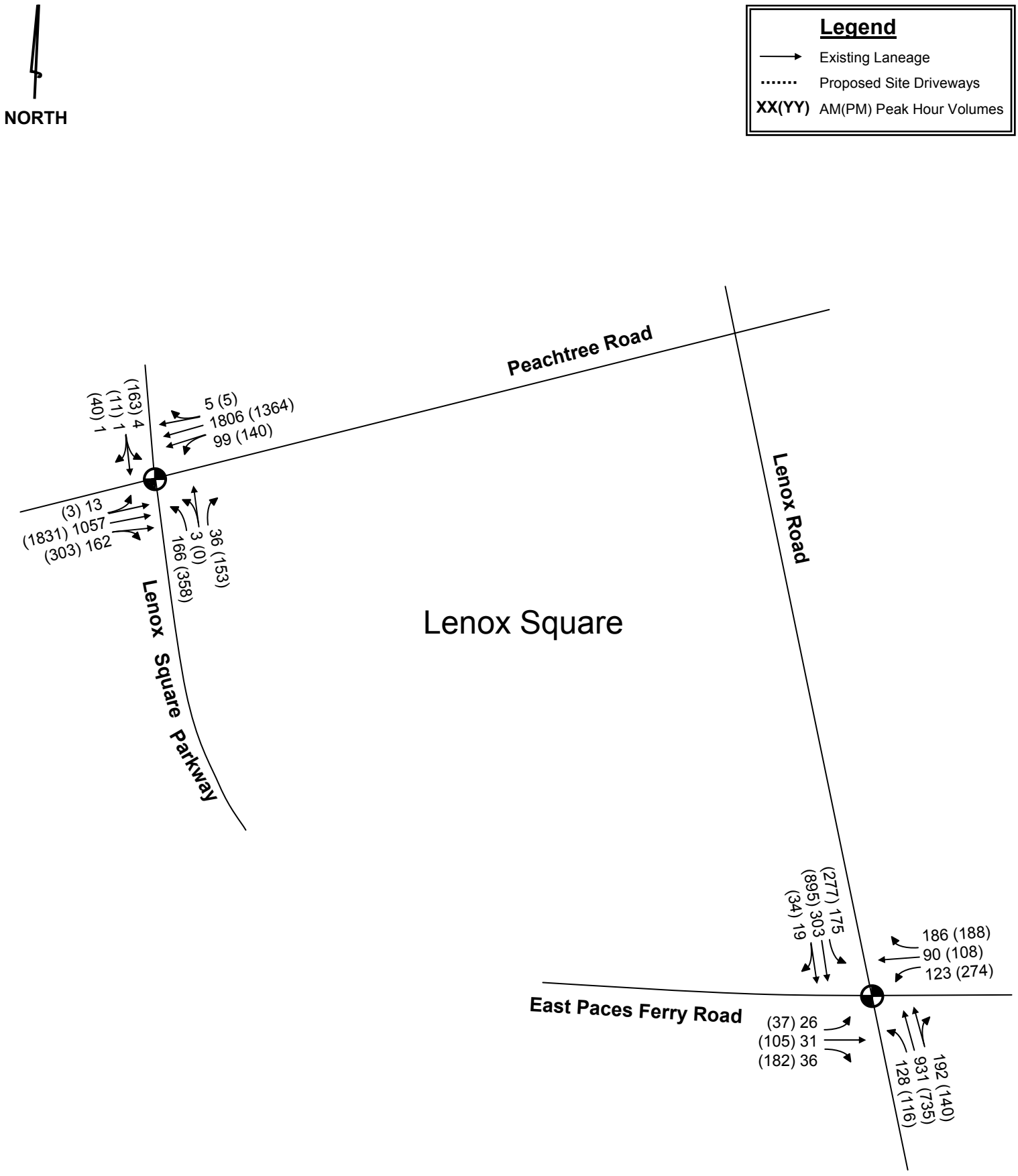
**The delay is slightly higher in the No-Build Improved Conditions than in the No-Build Conditions. This is because of timing optimization within the coordinated system.*

With optimized signal phasing splits, all intersections operate at or above the acceptable Level of Service standards for the year 2010 No-Build Conditions during both the AM and PM peak hours. No intersection geometry improvements are recommended.

The projected intersection laneage and traffic volumes for the year 2010 No-Build Conditions are shown in **Figure 7**.

6.3 2010 Build Traffic

The traffic associated with the proposed development was added to the 2010 No-Build volumes. These volumes, as well as the optimized intersection signal timings and improvements from the No-Build Condition, were then input into *Synchro 6.0*. The results of the analyses are displayed in **Table 8**. Analyses of the proposed site driveways along East Paces Ferry Road and Lenox Square Parkway were also performed and are provided in Table 8.



Kimley-Horn and Associates, Inc.	Lenox Towers DRI Transportation Analysis	Projected 2010 No-Build Conditions	Figure 7

Table 8
Lenox Towers DRI
2010 Build Intersection Levels of Service
(delay in seconds)

	Intersection	Control	LOS Standard	AM Peak Hour	PM Peak Hour
1	East Paces Ferry Road @ Lenox Road	Signalized	D	C (29.9)	D (40.4)
2	Lenox Square Parkway @ Peachtree Road	Signalized	D	C (25.1)*	D (44.4)*
3	East Paces Ferry Road @ Lenox Square Parkway/MARTA Drive	Northbound/Southbound Stop	D	B/B	B/C
4	Site Driveway #1 @ Lenox Square Parkway	Southbound Stop	D	A	A
5	Site Driveway #2 @ Lenox Square Parkway	Northbound Stop	D	B	B

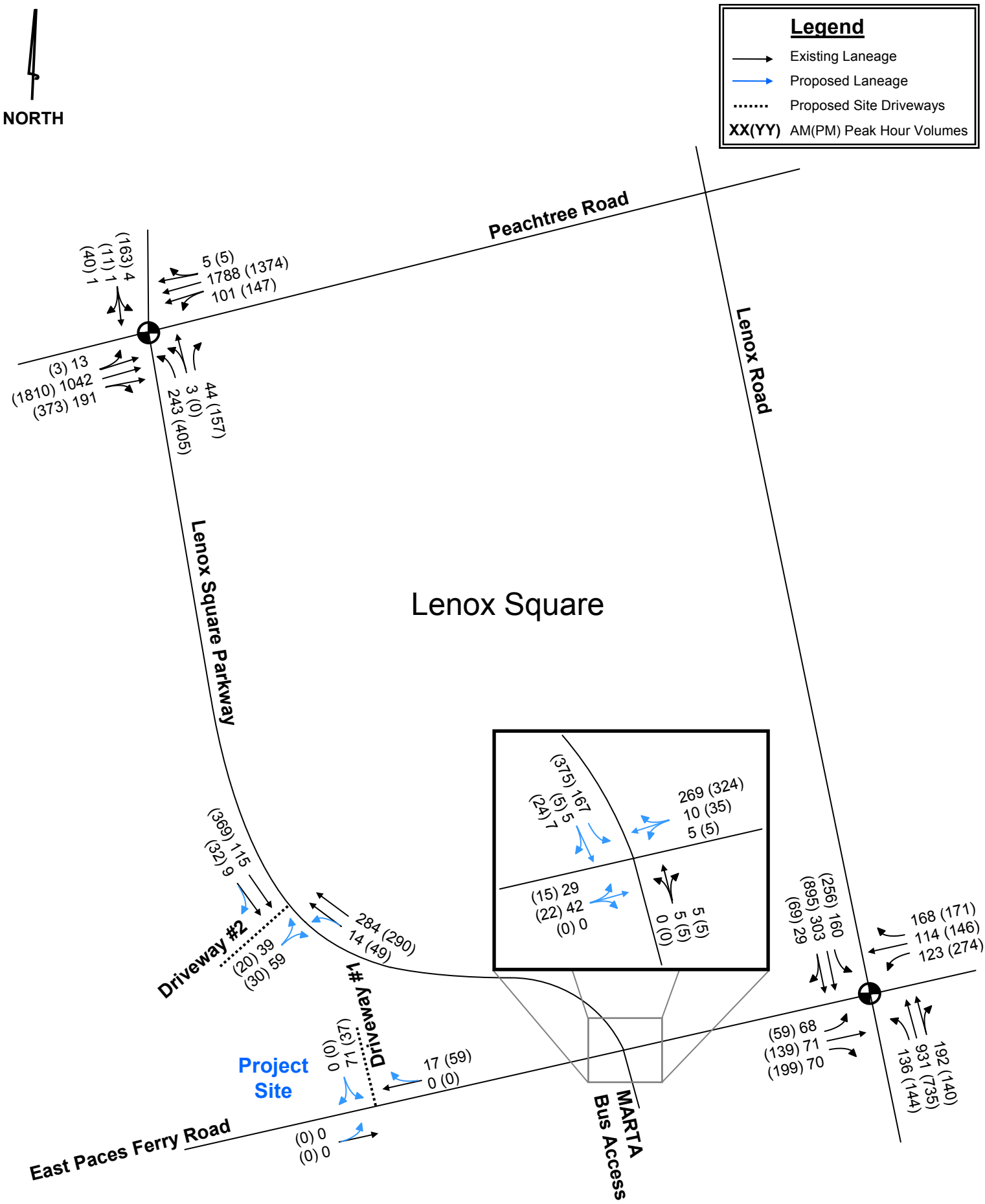
**NOTE: Improvement from No-Build Improved Conditions is a result of vehicles diverted from Peachtree Road to re-aligned Lenox Square Parkway and East Paces Ferry Road.*

Again, with optimized signal timing splits from No-Build Improved Conditions, all intersections operate at or above the acceptable Level of Service standards for the year 2010 Build Conditions during both the AM and PM peak hours.

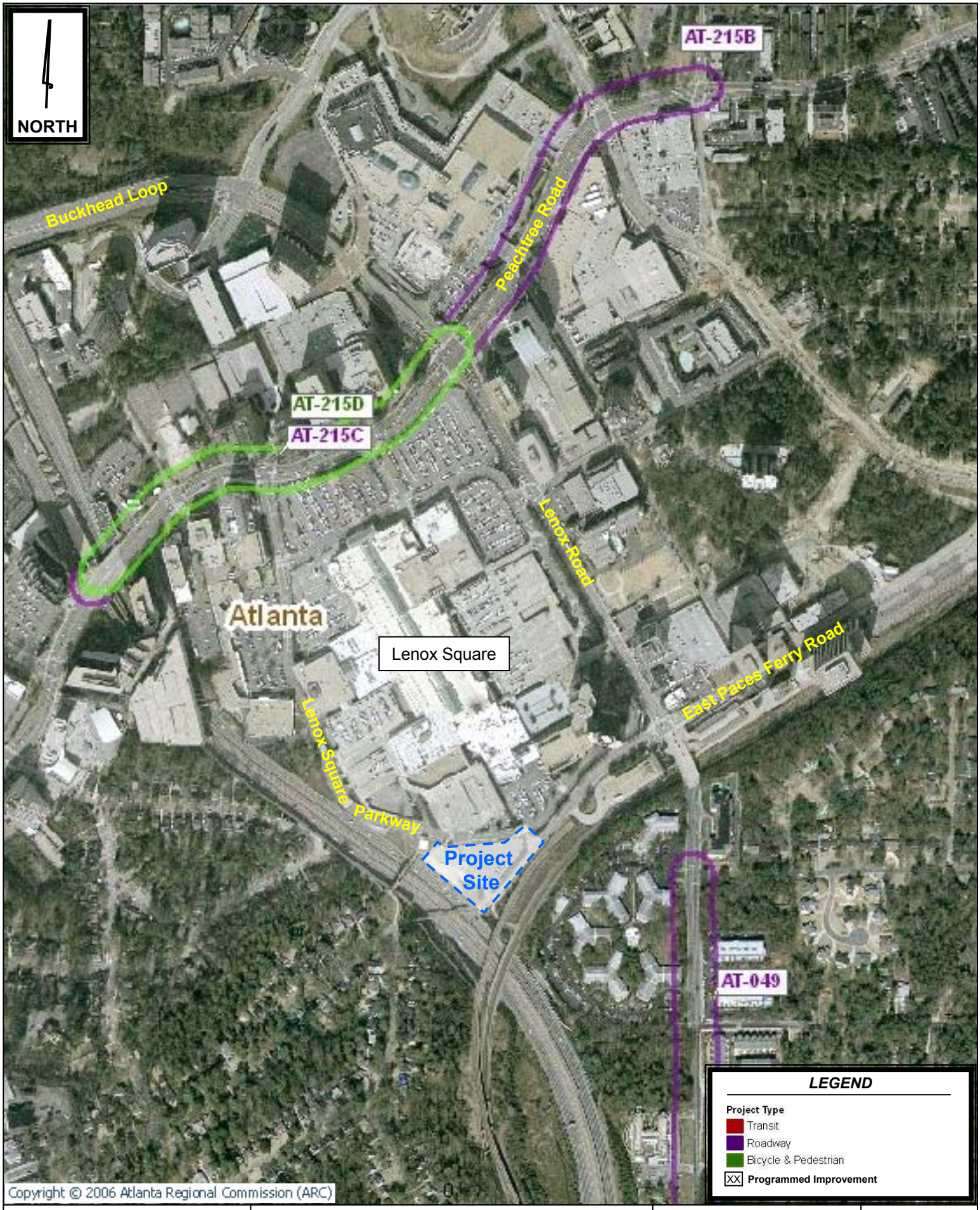
The projected 2010 Build traffic volumes are shown in **Figure 8**.

7.0 IDENTIFICATION OF PROGRAMMED PROJECTS

The *TIP, STIP, RTP, and GDOT's Construction Work Program* were searched for currently programmed transportation projects within the vicinity of the proposed development. Several projects are programmed for the area surrounding the study network and are shown in **Table 9** and **Figure 9**. Information on the projects is included in the Appendix.



Kimley-Horn and Associates, Inc.	Lenox Towers DRI Transportation Analysis	Projected 2010 Build Conditions	Figure 8



Kimley-Horn and Associates, Inc.	Lenox Towers DRI Transportation Analysis	Programmed Improvements	Figure 9

Table 9
Lenox Towers DRI
Area Programmed Projects

AT-049	Widening of Lenox Road from Ferncliff Road to Canterbury Road from two to four lanes. It is designed to relieve a bottleneck between the Lenox Mall area and I-85 North. It will also provide an alternate route to the congested SR 400 corridor (2015).
AT-215B	This project will improve the pedestrian and bicycle environments along Peachtree Road (SR 141) from SR 400 Overpass to Roxboro Road. It will upgrade existing sidewalks, add bicycle lanes to the roadway and create a raised median in the center of the roadway. Project is related to AT 215A and C (2009).
AT-215C	This project will improve the pedestrian and bicycle environments along Peachtree Road (SR 141) from E. Shadowlawn Avenue to Maple Drive. It will upgrade existing sidewalks, add bicycle lanes to the roadway and create a raised median in the center of the roadway. Project is related to AT 215A and B (2009).
AT-215D	Improvements to provide enhanced bike, pedestrian and transit accessibility. Specific elements include straightening of the dangerous lane shift, adding a median, installing left turn bays at two intersections, adding bicycle lanes, sidewalks, and clear zones (2009).
DK-076	Widen East Roxboro Road from 2 lanes to 4 lanes divided for .54 mile from West Roxboro Road to North Druid Hills Road. Project improves roadway geometries and safety (2020).

8.0 INGRESS/EGRESS ANALYSIS

Access for residents is proposed at two driveways - one full-movement driveway along East Paces Ferry Road and one full-movement driveway along Lenox Square Parkway. Both driveways are projected to operate above the LOS standard with a single-lane approach exiting the development.

9.0 INTERNAL CIRCULATION ANALYSIS

The proposed site plan consists of two vehicular driveways and one service driveway. Consistent with previous approved DRIs in the area, activities associated with the service driveways were not included in the traffic analysis. Interconnection between the two parking structures is not proposed; however, service areas for both towers are proposed to be shared.

10.0 COMPLIANCE WITH COMPREHENSIVE PLAN ANALYSIS

The City of Atlanta 2004-2019 Future Land Use Plan identifies the project site as High Density Commercial.

11.0 AREA OF INFLUENCE

This section will describe the Area of Influence (AOI) demographics, AOI average wage levels, expected DRI housing costs, and the availability of jobs within the AOI that would reasonably position employees to purchase housing or rent within the proposed DRI.

11.1 Criteria

As part of the non-expedited review process for a DRI, an Area of Influence Analysis must be performed to determine the impact of the proposed development on the balance of housing and jobs within the immediate area surrounding the proposed development. For this proposed development expansion, the non-expedited review criterion is as follows:

7. The proposed DRI:
   (c) Is located in an area of influence with employment opportunities which are such that at least twenty-five percent (25%) of the persons that are reasonably anticipated to live in the proposed DRI and are reasonably expected to be employed will have an opportunity to find employment appropriate to such persons' qualifications and experience within the Area of Influence;

11.2 Study Area Determination and Characteristics

The Area of Influence is comprised of the area within six road-miles of the proposed development. To determine the AOI, *TransCAD* was used to measure six road miles from the nearest intersection to the project (Lenox Road at East Paces Ferry Road). The population and housing statistics for the AOI were determined by taking the area outlined in *TransCAD*, creating a boundary in GIS format, and overlaying the boundary with a GIS layer containing Census tract information. The Area of Influence (located within Fulton and DeKalb Counties) can be seen in **Figure 10**. Information obtained from the census tracts can be seen in **Table 10**.

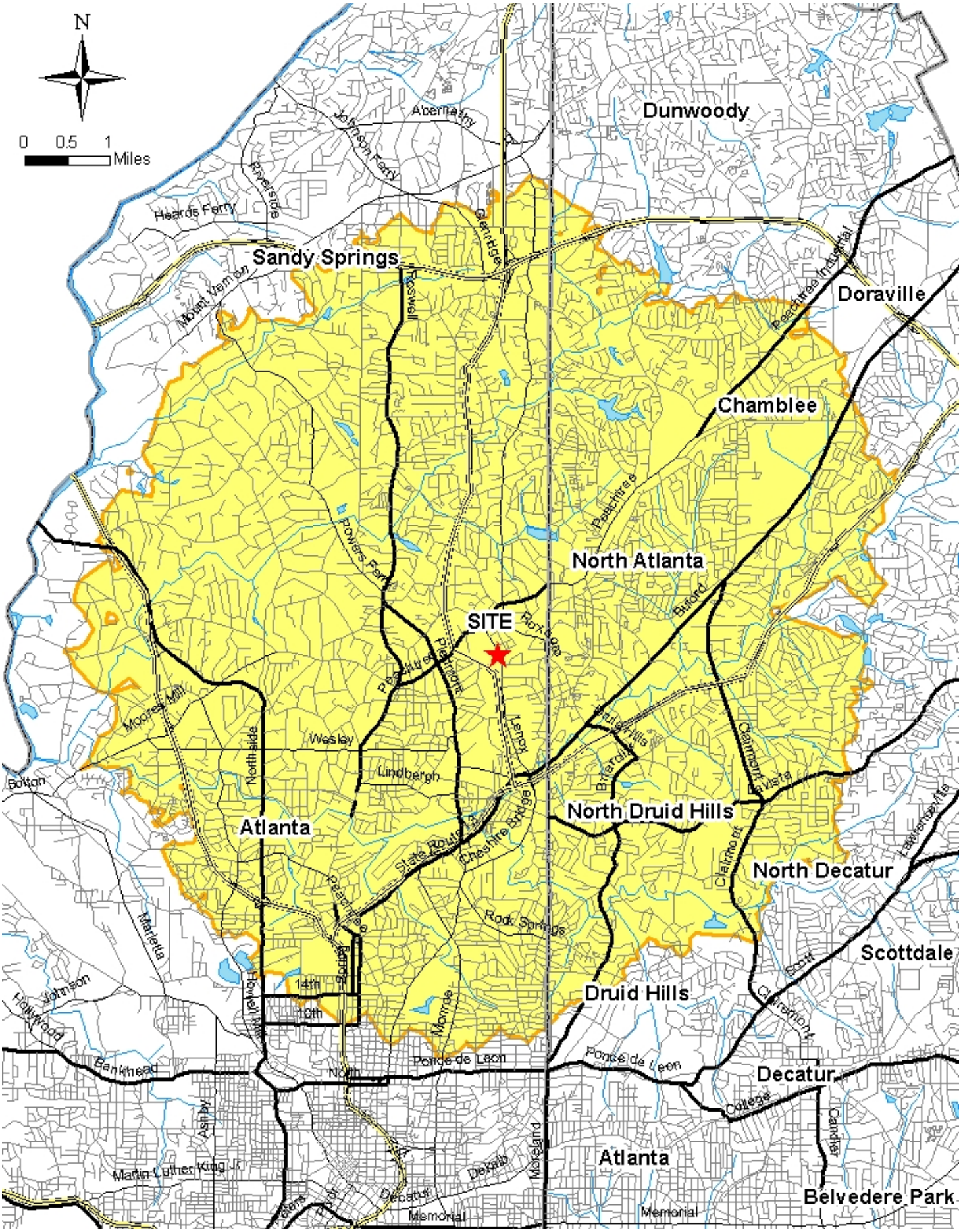
Table 10
Area of Influence
Census Tract Information

Total Households	103,314
Population in Households	216,730
Average household size	2.10
Total Workers	133,803
Workers per Household	1.30
Owner Occupied	46.8%
Renter Occupied	53.2%

As can be seen from the table above, the total population within the Area of Influence is 216,730, residing within 103,314 households (an average of 2.10 people per household). The AOI area totals 45,101 acres.

Using the above calculated average of 2.10 persons per household, it can be anticipated that the proposed DRI will house approximately 1,470 people (700 proposed dwelling units multiplied by 2.10). Based on information obtained from the Census tracts, it is estimated that approximately 910 of these expected 1,470 residents would be workers. The remainder of this section will demonstrate the availability of jobs for these expected workers within the development at or above the necessary income level to afford housing within the DRI.

The Atlanta Journal-Constitution website was researched to find current listings of condominiums/townhouses for sale and apartments for rent in the vicinity of the proposed development (30326 Zip Code). At the time of this report, approximately 53 condo/townhouse/single family homes were listed in the area, ranging in price from $133,900 - $4,395,000 (purchase price).



Kimley-Horn and Associates, Inc.	**Lenox Towers DRI Transportation Analysis**	**Area of Influence**	**Figure 10**

11.3 Development Housing Analysis

Approximately three different price ranges of condominiums will be available for purchase within the proposed development. **Table 11** below displays the number of units available for purchase, the average purchase price, and the number of workers expected to reside in homes at each price range.

Table 11
Estimated Workers per Household (Purchase)

	Number of Units	Average Price	Number of Workers
A	293 units for sale	$300,000	381
B	350 units for sale	$400,000	455
C	57 units for sale	$450,000	74
	700 total units	**-**	**910 total workers**

In order to determine the number of jobs available within the AOI that would provide adequate income, information about the types of jobs within the AOI and the average salaries for these positions was collected first. Information about the types of jobs available within the AOI was obtained from Claritas, a data solutions company. A map with the boundary of the AOI was sent to Claritas, and a report containing the types of employment opportunities and number of each type of job was compiled. The Claritas report is included in the Appendix of this report. Next, the Georgia Department of Labor website was researched to obtain average salary information for the positions available within the AOI. Average salary information for jobs in Fulton, DeKalb, and Gwinnett Counties was matched to the jobs existing within the AOI. This information (also available in the Appendix), along with the information provided by Claritas, is included in the **Table 12**, on the following page.

Table 12
Area of Influence
Jobs and Average Salaries

Industry / Business Type	# Businesses	# Employees	Average Salary
Retail Trade	3,450	3,524	$30,251
Building Materials and Garden Supply	124	2,866	-
General Merchandise Stores	57	3,577	-
Food Stores	231	4,825	-
Auto Dealers and Gas Stations	170	2,120	-
Apparel and Accessory Stores	386	2,794	-
Home Furniture, Furnishings, and Equipment	495	8,378	-
Eating and Drinking Places	1,043	21,305	-
Miscellaneous Retail Stores	944	7,659	-
Finance	2,420	36,049	$63,298
Banks, Savings and Lending Institutions	494	7,685	-
Securities and Commodity Brokers	414	6,908	-
Insurance Carriers and Agencies	294	8,080	-
Real Estate	1,130	11,543	-
Trusts, Holdings, and Other Investments	88	1,833	-
Services	8,880	119,996	-
Hotels and Other Lodging	107	5,315	$19,107
Personal Services	1,515	7,630	-
Business Services	2,893	38,158	$75,053
Motion Picture and Amusement	427	3,924	$43,617
Health Services	1,621	33,058	$46,040
Legal Services	1,088	12,081	$75,053
Education Services	215	6,258	$43,621
Social Services	276	5,635	$46,040
Miscellaneous, Membership Organizations and Nonclassified	738	7,937	-
Agriculture	234	2,205	$16,276
Mining	6	41	$61,724
Construction	766	6,089	$51,680
Manufacturing	544	10,396	$60,971
Transportation, Communication/Public Utilities	567	9,933	$102,977
Wholesale Trade	524	5,129	$67,538
Public Administration	186	7,396	$49,073
Total	17,577	250,758	-

11.4 Affordable Housing Analysis

In order to calculate the number of expected workers likely to find appropriate employment within the AOI, it was necessary to first estimate the yearly cost of each tier. Several online calculators aid in determining affordable housing based on given incomes and income ranges. These calculators were used to determine the minimum income necessary to afford purchased housing within the proposed development. It was assumed that no more than one third of an individual's income would be used for mortgage costs, that a 7.0% interest rate on a 30-year conventional loan could be obtained, and that a 10% down payment would be made. Because there is an average of 1.30 workers expected per household, the required income for each range was divided by 1.30 to determine the average salary each worker within the development would be expected to earn in order to provide their "fair share" of the housing costs. This methodology assumes an equal burden on all workers within the development, and is considered to be a conservative approach since it eliminates the lower paying positions within the AOI from consideration in the analysis. **Table 13** displays the number of workers expected in each price range, as well as the number of jobs available at the necessary average income level to afford housing within that price range. As can be seen in the table, there are more than enough positions available within the AOI for expected workers within the proposed development to find employment at the required minimum income level for both levels of pricing within the development, thus satisfying the GRTA requirement of 25%.

Table 13
Expected Workers

	Average Monthly Price	Necessary Income per Expected Worker (Yearly)	Expected Worker per Price Range	Jobs at or above Necessary Income
A	293 units for sale	$49,744	381	60,172
B	350 units for sale	$66,326	455	65,301
C	57 units for sale	$74,616	74	117,876
Percent of expected workers likely to find necessary employment within the AOI				**100%**

12.0 ARC'S AIR QUALITY BENCHMARK

The proposed development will consist of 700 high-rise condominium units on the existing Lenox Square Mall site. Because the development is a residential addition to the existing Lenox Square Mall site, density is calculated on the total acreage for the mall property and does not meet the ARC density threshold for reduction.

The development is located approximately 1/5-mile from the Lenox MARTA rail station (along the Northeast rail line). Three MARTA bus routes operate out of this station. Additionally, the BUC provides service from the Lenox Square Mall food court, located approximately 300 feet from the proposed towers. This allows for a total reduction of 8%.

The proposed development is located within the Buckhead Area Transportation Management Association. The TMA focuses on providing commuter incentives, public education, technical services, and other benefits for residents and commuters. This allows for a 3% reduction.

Additionally, the proposed development will provide pedestrian connection to Lenox Square Mall. This pedestrian network meets the ARC criteria for a 4% reduction.

The proposed development meets the ARC criteria for a total 15% VMT reduction. These reductions are displayed below in **Table 14**.

Table 14
Lenox Towers DRI
ARC VMT Reductions

Mixed-Use Projects where Residential is the dominant use	
Project is located within ¼ mile of a bus stop	-3%
Project is located within ½ mile of rail station	-5%
Located within a Transportation Management Association	-3%
Bike/Ped network that connects to adjacent uses	-4%
Total Reductions	**15%**