

Transportation Analysis

THE TERRACES
DRI# 1495
DeKalb County, Georgia

Prepared for:
Barry Real Estate Companies

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EXECUTIVE SUMMARY

This report presents the analysis of the anticipated traffic impacts of a proposed 24.41-acre mixed-use redevelopment (The Terraces) in DeKalb County, Georgia. This report is being prepared as part of a submittal requesting rezoning from Office-Industrial to OCR (Office-Commercial Residential). Because the project will exceed 400,000 square feet of mixed-use development area, the proposed redevelopment is a Development of Regional Impact (DRI) and is subject to Georgia Regional Transportation Authority (GRTA) and Atlanta Regional Commission (ARC) review.

The proposed redevelopment is expected to consist of 400 condominium dwelling units and approximately 22,600 SF of quality restaurant space to be added to approximately 1.02 million square feet (SF) of existing office space. The development is scheduled to be completed in a single phase, by the year 2011.

The results of the detailed intersection analysis for the 2011 No-Build (excluding The Terraces development) and 2011 Build conditions (including The Terraces development) did not identify any improvements necessary in order to maintain the Level of Service standard within the study network.

2011 No-Build recommended improvements (includes background growth but does not include The Terraces DRI project traffic):

- No Improvements Necessary

2011 Build recommended improvements (includes The Terraces DRI project traffic):

- No Improvements Necessary

1.0 PROJECT DESCRIPTION

1.1 Introduction

This report presents the analysis of the anticipated traffic impacts of the proposed redevelopment of a 24.41-acre parcel bordered by Meadow Lane Drive on the north, Perimeter Center Place on the west, Perimeter Center West on the south, and Ashford-Dunwoody Road on the east in DeKalb County, Georgia. This report is being prepared as part of a submittal requesting rezoning from Office-Institutional to OCR (Office-Commercial-Residential). Because the project will exceed 400,000 square feet, the proposed development is a Development of Regional Impact (DRI) and is subject to Georgia Regional Transportation Authority (GRTA) and Atlanta Regional Commission (ARC) review.

The proposed redevelopment is expected to add approximately 400 high-rise condominium dwelling units (DU) and 22,600 square feet (SF) of quality restaurant space to approximately 1.02 million square feet (SF) of existing office space. The development is scheduled to be completed in a single phase, by the year 2011.

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

Table 1 Proposed Land Uses	
High-Rise Condominiums	400 dwelling units
Quality Restaurant	22,600 SF

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

1.2 Site Plan Review

The redevelopment plan is scheduled to be completed in one phase. The proposed site is surrounded by Meadow Lane Drive on the north, Perimeter Center Place on the west, Perimeter Center West on the south, and Ashford-Dunwoody Road on the east.

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 Review Package.

1.3 Site Access

Access to the development is proposed at eight locations, all of which currently exist. There are five driveways along Perimeter Center Place. Driveway 1 is a right-in/right-out drive near the intersection of Perimeter Center Place and Meadow Lane Drive. Driveway 2 is a full-movement driveway located approximately 225' south along Perimeter Center Place from Driveway 1. Driveway 3 is a full-movement driveway located approximately 375' south along Perimeter Center Place from Driveway 2. Driveway 4 is a right-in/left-in only driveway located approximately 450' south along Perimeter Center Place from Driveway 3. Driveway 5 is a full-movement driveway located approximately 150' south along Perimeter Center Place from Driveway 4.

Driveway 6 is the only driveway along Perimeter Center West. It is a right-in/right-out driveway located approximately 500' to the east of the intersection of Perimeter Center West and Perimeter Center Place.

There are two driveways along Ashford-Dunwoody Road. Driveway 7 is a full-movement, signalized driveway across from Perimeter Center North. Driveway 8 is a right-in/right-out driveway located approximately 700' north along Ashford-Dunwoody Road from driveway 7.

1.4 *Bicycle and Pedestrian Facilities*

Pedestrian facilities currently exist along all adjacent roadways, but do not extend all the way to the Dunwoody and Sandy Springs MARTA stations. The proposed redevelopment will connect to the existing sidewalks to provide pedestrian access (see Appendix for site photos).

1.5 *Transit Facilities*

The proposed redevelopment is located approximately $\frac{3}{4}$ of a mile north of the Dunwoody MARTA station off of Hammond Drive and $\frac{3}{4}$ of a mile east of the Sandy Springs MARTA station off of Perimeter Center West. These stations lie on the North-South Marta rail line (10-20 minute headways) which intersects the East-West rail line (to the south) at the Five Points station. Five MARTA bus routes operate from the Dunwoody station including the following: Route 5-Sandy Springs (15-30 minute headways), Route 70- Chamblee-Dunwoody (varying headways), Route 87- Roswell Road (20-30 minute headways), Route 150- Perimeter Center (30-60 minute headways), and Route 305- Barfield Road (30 minute headways). The only MARTA bus route operating from the Sandy Springs station is Route 148- Powers Ferry (70-minute headways). Route 150- Perimeter Center is the only route that directly accesses the site. There are MARTA bus stops along Perimeter Center West, Perimeter Center Place, and Meadow Lane Road.

In addition to the MARTA bus routes, the development is also close to GRTA Xpress Route 428- Panola Road to Perimeter Center (30-minute headway). This route stops at the Dunwoody MARTA station. See the attached maps for detailed route descriptions for both the MARTA and Xpress routes.

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 the Georgia DOT was reviewed for the area surrounding the proposed redevelopment, and growth rates of 2.0% per year along all roadways were agreed upon during the methodology meeting with GRTA staff.

2.2 *Traffic Data Collection*

2007 weekday peak hour turning movement counts were conducted on Wednesday May 9, 2007 at five signalized and seven unsignalized intersections between 7:00-9:00 AM and 4:30-6:30 PM. Additionally, another weekday turning movement counts were performed on Thursday July 19, 2007. The morning and afternoon peak hours varied between the three intersections:

- | | |
|--|--|
| ○ Perimeter Center Place @ Meadow Lane | (AM Peak 8:00-9:00, PM Peak 5:15-6:15) |
| ○ Perimeter Center Place @ Terraces Driveway #1 | (AM Peak 7:45-8:45, PM Peak 4:30-5:30) |
| ○ Perimeter Center Place @ Terraces Driveway #2 | (AM Peak 7:00-8:00, PM Peak 5:30-6:30) |
| ○ Perimeter Center Place @ Terraces Driveway #3 | (AM Peak 7:45-8:45, PM Peak 5:15-6:15) |
| ○ Perimeter Center Place @ Terraces Driveway #4 | (AM Peak 8:00-9:00, PM Peak 5:00-6:00) |
| ○ Perimeter Center Place @ Terraces Driveway #5 | (AM Peak 8:00-9:00, PM Peak 5:15-6:15) |
| ○ Perimeter Center Place @ Perimeter Center West | (AM Peak 8:00-9:00, PM Peak 5:30-6:30) |
| ○ Perimeter Center West @ Terraces Driveway #6 | (AM Peak 8:00-9:00, PM Peak 5:30-6:30) |
| ○ Perimeter Center West @ Ashford-Dunwoody Road | (AM Peak 8:00-9:00, PM Peak 5:30-6:30) |
| ○ Ashford-Dunwoody Road @ Terraces Driveway #7 | (AM Peak 7:30-8:30, PM Peak 5:30-6:30) |

- Ashford-Dunwoody Road @ Terraces Driveway #8 (AM Peak 8:00-9:00, PM Peak 4:30-5:30)
- Ashford-Dunwoody Road @ Meadow Lane (AM Peak 7:45-8:45, PM Peak 5:30-6:30)

The AM and PM peak hours for the Ashford-Dunwoody Road at Driveway #8 intersection were balanced according to the peak hours for the intersection of Ashford-Dunwoody Road at Terraces Driveway #7. The apartment complex at the northeast corner of Ashford-Dunwoody Road and Terraces Driveway #7/ Perimeter Center North is completely built-out with 85% of the units leased as of August 2, 2007. 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 individual movements as well as 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 redevelopment is expected to consist of 400 high-rise condominium dwelling units and 22,600 square feet of quality restaurant. The redevelopment is scheduled to be completed in a single phase, by the year 2011.

Traffic for these land uses 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 The Terraces 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 2011)							
400 DU High-Rise Condos	232	866	866	28	117	94	57
22,600 SF Quality Restaurant	931	1017	1017	N/A	N/A	113	56
Total		1,883	1,883	28	117	207	113

3.2 *Trip Distribution*

The directional distribution and assignment of new project trips was based on a review of existing counts, engineering judgment, and discussions with GRTA, GDOT, ARC, and Dekalb County staff at the methodology meeting.

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 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) be considered for analysis. This general study area was refined during the methodology meeting, and includes the following intersections:

- Perimeter Center Place @ Meadow Lane (signalized)
- Perimeter Center Place @ Terraces Driveway #1 (unsignalized)
- Perimeter Center Place @ Terraces Driveway #2 (unsignalized)
- Perimeter Center Place @ Terraces Driveway #3 (unsignalized)
- Perimeter Center Place @ Terraces Driveway #4 (unsignalized)
- Perimeter Center Place @ Terraces Driveway #5 (unsignalized)
- Perimeter Center Place @ Perimeter Center West (signalized)
- Perimeter Center West @ Terraces Driveway #6 (unsignalized)
- Perimeter Center West @ Ashford-Dunwoody Road (signalized)
- Ashford-Dunwoody Road @ Terraces Driveway #7 (signalized)
- Ashford-Dunwoody Road @ Terraces Driveway #8 (unsignalized)
- Ashford-Dunwoody Road @ Meadow Lane (unsignalized)

Each of the above listed intersections was analyzed for the AM and PM peak periods under Existing 2007 Condition, the 2011 No-Build Condition, and the 2011 Build Condition. The 2011 No-Build condition represents the existing traffic volumes grown at 2.0% per year for four years. The 2011 Build condition adds the projected trips associated with the Terraces redevelopment to the 2011 No-Build condition.

3.5 *Existing Facilities*

Ashford-Dunwoody Road

- Ashford-Dunwoody Road is a north-south oriented roadway that extends from Peachtree Road to Mt. Vernon Road. Ashford-Dunwoody Road is a five-lane median divided urban minor arterial in the vicinity of the project site between Meadow Lane and Perimeter Center West/East, with 2 northbound and 3 southbound lanes.

Perimeter Center West

- Perimeter Center West is an east-west oriented roadway that extends from Mt. Vernon Highway to Ashford-Dunwoody Road. In the vicinity of the project site, Perimeter Center West is a four-lane median divided urban minor arterial.

Perimeter Center East

- Perimeter Center East is an east-west oriented roadway that loops from Perimeter Center West to Ashford-Dunwoody Road. Perimeter Center East is a four-lane median divided roadway.

Perimeter Center Place

- Perimeter Center Place is a north-south oriented roadway that extends from Meadow Lane to Perimeter Center West. In the vicinity of the site, Perimeter Center Place is a four-lane undivided roadway.

Meadow Lane Road

- Meadow Lane Road is primarily an east-west oriented roadway that extends from Ashford-Dunwoody Road to Ridgeview Road. In the vicinity of the project site, Meadow Lane Road is a four-lane divided roadway.

Roadway	Road Type	Number of Lanes	Posted Speed Limit (MPH)	GDOT Functional Classification
Ashford-Dunwoody Road	Two-Way, Divided	5	45	Urban Minor Arterial
Perimeter Center West	Two-Way, Divided	4	35	Urban Minor Arterial
Perimeter Center East	Two-Way, Divided	4	35	Urban Local Street
Perimeter Center Place	Two-Way, Undivided	4	35	Urban Local Street
Meadow Lane Road	Two-Way, Divided	4	25	Urban Local Street

4.0 TRIP GENERATION

As stated earlier, trips associated with the proposed development were estimated using the *ITE Trip Generation Manual*, Seventh Edition (2003), using equations where available.

Mixed-use and pass-by reductions were taken according to the *ITE Trip Generation Handbook*, June 2004 and GRTA guidelines. Alternate modes of transportation reductions of 10% for residential and 5% for non-residential were taken, per the Letter of Understanding. It is important to note that trips associated with the Gables Metropolitan Apartments, located at the intersection of Ashford-Dunwoody Road and Perimeter Center North, were assumed to be included in the existing 2007 traffic volumes since the development is fully built-out with 85% occupancy. The total trips generated and analyzed in the report are listed below in **Table 3**.

Table 3 The Terraces DRI Net Trip Generation						
Land Use	Daily Traffic		AM Peak Hour		PM Peak Hour	
	Enter	Exit	Enter	Exit	Enter	Exit
Build-Out (Year 2011)						
Gross Trips	1,883	1,883	28	117	207	113
<i>Internal Capture Reductions</i>	<i>-204</i>	<i>-204</i>	<i>-</i>	<i>-</i>	<i>-17</i>	<i>-17</i>
<i>Alternative Mode Reductions</i>	<i>-122</i>	<i>-122</i>	<i>-3</i>	<i>-12</i>	<i>-14</i>	<i>-7</i>
<i>Pass-by Reductions</i>	<i>-403</i>	<i>-403</i>	<i>-</i>	<i>-</i>	<i>-45</i>	<i>-22</i>
New Trips	1,154	1,154	25	105	131	67

5.0 TRIP DISTRIBUTION AND ASSIGNMENT

New trips were distributed onto the roadway network using the percentages agreed to during the methodology meeting. **Figure 4 and Figure 5** displays the expected percentages for the development throughout the roadway network. These percentages were applied to the new trips generated by the development (see Table 3, 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 6**.

6.0 TRAFFIC ANALYSIS

6.1 Existing 2007 Traffic

These observed existing peak hour traffic volumes (as well as pedestrian volumes and heavy vehicle percentages) were input in Synchro 6.0, along with the existing cycle lengths, splits, and offsets, and an Existing 2007 Conditions analysis was performed. The results are displayed below in **Table 4**.

The existing traffic volumes are shown in **Figure 7**.

Table 4
The Terraces DRI
Existing 2005 Intersection Levels of Service
(delay in seconds)

Intersection		Control	AM Peak Hour	PM Peak Hour
1	Perimeter Center Place @ Meadow Lane Road	Signal	B (15.7)	B (16.0)
2	Perimeter Center Place @ Driveway #1 Westbound Approach	Side-Street Stop Control	B (10.8)	B (10.3)
3	Perimeter Center Place @ Driveway #2 Westbound Approach	Side-Street Stop Control	B (10.3)	B (11.5)
4	Perimeter Center Place @ Driveway #3 Westbound Approach	Side-Street Stop Control	B (11.3)	B (10.0)
5	Perimeter Center Place @ Driveway #4 Westbound Approach	Side-Street Stop Control	N/A	N/A
6	Perimeter Center Place @ Driveway #5 Westbound Approach	Side-Street Stop Control	B (10.8)	B (13.2)
7	Perimeter Center Place @ Perimeter Center West	Signal	C (26.1)	C (32.9)
8	Perimeter Center West @ Driveway #6 Southbound Approach	Side-Street Stop Control	B (11.8)	B (13.0)
9	Perimeter Center West @ Ashford-Dunwoody Road	Signal	D (46.9)	E (62.7)
10	Ashford-Dunwoody Road at Driveway #7 / Perimeter Center North	Signal	C (23.4)	C (26.0)
11	Ashford-Dunwoody Road at Driveway #8 Eastbound Approach	Side-Street Stop Control	A (9.6)	B (10.6)
12	Ashford-Dunwoody Road at Meadow Lane Road	Signal	C (30.8)	D (37.9)

As shown in the table, one intersection currently operates below the acceptable Level of Service standard (LOS D) during the PM peak hour. The signalized intersection of Perimeter Center West at Ashford-Dunwoody Road currently operates at LOS E during the PM peak hour. The intersection's No-Build and Build PM Peak Hour LOS standard is therefore lowered to LOS E per GRTA guidelines in the Letter of Understanding (LOU). It is important to note that the intersection of Perimeter Center Place at Driveway #4 is an entrance only driveway; therefore, level of service at this intersection is not applicable.

6.2 2011 No-Build Traffic

The existing traffic volumes were grown at 2.0% per year along all roadway links within the study network. These volumes were input in Synchro 6.0 and analyses of the projected No-Build conditions were performed. The results are displayed below in **Table 5**.

Table 5 The Terraces DRI 2011 No-Build Intersection Levels of Service (delay in seconds)					
Intersection		Control	LOS Standard	AM Peak Hour	PM Peak Hour
1	Perimeter Center Place @ Meadow Lane Road	Signal	D	B (17.5)	B (18.5)
2	Perimeter Center Place @ Driveway #1 Westbound Approach	Side-Street Stop Control	D	B (11.1)	B (10.5)
3	Perimeter Center Place @ Driveway #2 Westbound Approach	Side-Street Stop Control	D	B (10.5)	B (11.8)
4	Perimeter Center Place @ Driveway #3 Westbound Approach	Side-Street Stop Control	D	B (11.7)	B (10.2)
5	Perimeter Center Place @ Driveway #4 Westbound Approach	Side-Street Stop Control	D	N/A	N/A
6	Perimeter Center Place @ Driveway #5 Westbound Approach	Side-Street Stop Control	D	B (11.0)	B (13.6)
7	Perimeter Center Place @ Perimeter Center West	Signal	D	C (26.9)	D (35.4)
8	Perimeter Center West @ Driveway #6 Southbound Approach	Side-Street Stop Control	D	B (12.3)	B (13.7)
9	Perimeter Center West @ Ashford-Dunwoody Road	Signal	E (PM Only)	D (47.4)	E (64.8)
10	Ashford-Dunwoody Road at Driveway #7 / Perimeter Center North	Signal	D	C (23.6)	C (27.4)
11	Ashford-Dunwoody Road at Driveway #8 Eastbound Approach	Side-Street Stop Control	D	B (10.1)	B (10.8)
12	Ashford-Dunwoody Road at Meadow Lane Road	Signal	D	D (36.0)	D (42.4)

As shown in the table, all intersections met the acceptable Level of Service standards for the year 2011 No-Build condition. The projected volumes for the year 2011 No-Build condition are shown in **Figure 8**.

6.3 2011 Build Traffic

The traffic associated with the proposed development (the Terraces) was added to the 2011 No-Build volumes. These volumes were then input into Synchro 6.0. The results of the analyses are displayed in **Table 6**.

Table 6 The Terraces DRI 2011 Build Intersection Levels of Service (delay in seconds)					
Intersection		Control	LOS Standard	AM Peak Hour	PM Peak Hour
1	Perimeter Center Place @ Meadow Lane Road	Signal	D	C (25.4)	C (28.3)
2	Perimeter Center Place @ Driveway #1 Westbound Approach	Side-Street Stop Control	D	B (12.6)	B (11.6)
3	Perimeter Center Place @ Driveway #2 Westbound Approach	Side-Street Stop Control	D	B (11.5)	C (15.0)
4	Perimeter Center Place @ Driveway #3 Westbound Approach	Side-Street Stop Control	D	B (12.1)	B (10.9)
5	Perimeter Center Place @ Driveway #4 Westbound Approach	Side-Street Stop Control	D	N/A	N/A
6	Perimeter Center Place @ Driveway #5 Westbound Approach	Side-Street Stop Control	D	B (11.3)	B (14.7)
7	Perimeter Center Place @ Perimeter Center West	Signal	D	C (29.0)	D (37.2)
8	Perimeter Center West @ Driveway #6 Southbound Approach	Side-Street Stop Control	D	B (12.3)	B (14.1)
9	Perimeter Center West @ Ashford-Dunwoody Road	Signal	E (PM Only)	D (48.3)	E (65.5)
10	Ashford-Dunwoody Road at Driveway #7 / Perimeter Center North	Signal	D	C (23.8)	C (27.8)
11	Ashford-Dunwoody Road at Driveway #8 Eastbound Approach	Side-Street Stop Control	D	B (10.3)	B (10.9)
12	Ashford-Dunwoody Road at Meadow Lane Road	Signal	D	D (37.3)	D (44.4)

As shown in **Table 6**, all intersections met the acceptable Level of Service standard for the AM and PM peak hours. **Figure 9** displays projected 2011 Build Conditions.

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. Information on the projects is included in the Appendix.

1. DK-217 GDOT # 0006883 (RTP, TIP, GDOT CWP) (DRAFT-Envision 6)	This project will include road widening from 4 to 6 lanes, intersection improvements as appropriate, bicycle lanes (through the use of signage) and pedestrian features to improve roadway operations by promoting alternative modes of transportation thereby improving mobility and accessibility.
2. DK-301 (DRAFT-Envision 6)	Ashford Dunwoody Road at Perimeter Summit Parkway (Roadway Operational Upgrades)
3. DK-302 GDOT # 0004410 (RTP, TIP, STIP, GDOT) (DRAFT-Envision 6)	Intersection improvements in the Ashford-Dunwoody corridor include improved crosswalks and signals. Part of GRTA's Community Improvement District Bond Funded projects.
4. DK-303 GDOT #0004411 (RTP, TIP, STIP, GDOT) (DRAFT-Envision 6)	Intersection improvements in the Ashford-Dunwoody corridor include improved crosswalks and signals. Part of GRTA's Community Improvement District Bond Funded projects.
5. DK-304 GDOT #0004412 (RTP, TIP, STIP, GDOT) (DRAFT-Envision 6)	Intersection improvements in the Ashford-Dunwoody corridor include improved crosswalks and signals. Part of GRTA's Community Improvement District Bond Funded projects.
6. DK-305 (DRAFT-Envision 6)	Roadway operational upgrades along Ashford Dunwoody Road at Lake Hearn Drive.
7. DK-306 GDOT # 0004414 (RTP, TIP, STIP, GDOT) (DRAFT-Envision 6)	Intersection improvements in the Ashford-Dunwoody corridor include improved crosswalks and signals. Part of GRTA's Community Improvement District Bond Funded projects.
8. GDOT #0004416 (GDOT CWP)	Perimeter Center West @ Perimeter Center Parkway – Intersection Improvement.
9. GDOT #0004417 (GDOT CWP)	Perimeter Center West @ Bell South Entrance – Intersection Improvement.
10. GDOT #0004418 (GDOT CWP)	Perimeter Center West @ Perimeter Mall Entrance – Intersection Improvement.
11. DK-313 (DRAFT-Envision 6)	Roadway operational upgrades along Ashford Dunwoody Road at Ashford Gables Drive/Valley View Road.
12. DK-317 (DRAFT-Envision 6)	Pedestrian facilities in the Perimeter Center area with sidewalks south of I-285 North.
13. GDOT #0004831 (GDOT CWP)	Perimeter Center streetscape from Mount Vernon to Ashford-Dunwoody Road.
14. AR-900A/AR-900B Multi-County	I-285 North Bus Rapid Transit (BRT) from Cumberland/Galleria Area in Cobb County to Perimeter Center in DeKalb County
15. DK-AR-219A (DRAFT-Envision 6)	Interchange capacity for I-285 North from SR 400 to North Shallowford Road – Includes Ashford-Dunwoody Road interchange.
16. DK-AR-BP047 (DRAFT-Envision 6)	Bicycle/Pedestrian facilities along Ashford-Dunwoody Road (sidewalks and bike lanes) from west Nancy Creek Road to Perimeter Summit Parkway and along Perimeter Summit Parkway to Lake Hearn Road.

8.0 INGRESS/EGRESS ANALYSIS

Access to the development is proposed at eight locations, all of which currently exist. There are five driveways along Perimeter Center Place. Driveway 1 is a right-in/right-out drive near the intersection of Perimeter Center Place and Meadow Lane Drive. Driveway 2 is a full-movement driveway located approximately 225' south along Perimeter Center Place from Driveway 1. Driveway 3 is a full-movement driveway located approximately 375' south along Perimeter Center Place from Driveway 2. Driveway 4 is an entrance only driveway located approximately 450' south along Perimeter Center Place from Driveway 3. Driveway 5 is a full-movement driveway located approximately 150' south along Perimeter Center Place from Driveway 4.

Driveway 6 is the only driveway along Perimeter Center West. It is a right-in/right-out driveway located approximately 500' to the east of the intersection of Perimeter Center West and Perimeter Center Place.

There are two driveways along Ashford-Dunwoody Road. Driveway 7 is a full-movement driveway across from Perimeter Center North. Driveway 8 is a right-in/right-out driveway located approximately 700' north along Ashford-Dunwoody Road from driveway 7.

Overall, the existing ingress and/or egress access points are projected to perform at acceptable industry standards. This overall performance is based on design features such as signalized access points, median divided highways, right-in/right-out access, multiple access points and entrance only driveways. The combination of these design features combined with adequate roadway infrastructure promotes optimal performance of vehicle, pedestrian, and transit interactions.

9.0 INTERNAL CIRCULATION ANALYSIS

The proposed redevelopment will generate trips between the residential and non-residential use. The parking lots connect the mixed uses and will provide connectivity for internal trips. Using the *ITE Trip Generation Handbook, June 2004* as a reference, approximately 10.83% of the gross daily trips will be internal and approximately 10.63% of the gross PM peak hour trips will be internal.

10.0 COMPLIANCE WITH COMPREHENSIVE PLAN ANALYSIS

The DeKalb County's Land Use Plan designates this area as a regional activity center.

11.0 NON-EXPEDITED CRITERIA

11.1 *Quality, Character, Convenience, and Flexibility of Transportation Options*

The proposed redevelopment is located approximately $\frac{3}{4}$ of a mile north of the Dunwoody MARTA station off of Hammond Drive and $\frac{3}{4}$ of a mile east of the Sandy Springs MARTA station off of Perimeter Center West. These stations lie on the North-South Marta rail line (10-20 minute headways) which intersects the East-West rail line (to the south) at the Five Points station. Five MARTA bus routes operate from the Dunwoody station including the following: Route 5-Sandy Springs (15-30 minute headways), Route 70- Chamblee-Dunwoody (varying headways), Route 87- Roswell Road (20-30 minute headways), Route 150- Perimeter Center (30-60 minute headways), and Route 305- Barfield Road (30 minute headways). The only MARTA bus route operating from the Sandy Springs station is Route 148- Powers Ferry (70-minute headways). Route 150- Perimeter Center is the only route that directly accesses the site. There are MARTA bus stops along Perimeter Center West, Perimeter Center Place, and Meadow Lane Road.

In addition to the MARTA bus routes, the development is also close to GRTA Xpress Route 428- Panola Road to Perimeter Center (30-minute headway). This route stops at the Dunwoody MARTA station. See the attached maps for detailed route descriptions for both the MARTA and Xpress routes.

Pedestrian facilities currently exist along all adjacent roadways, but do not extend all the way to the Dunwoody and Sandy Springs MARTA stations. The proposed redevelopment will connect to the existing sidewalks to provide pedestrian access (see Appendix for site photos).

11.2 Vehicle Miles Traveled

The following table displays the reduction in traffic generation due to internal capture, pass-by trips, and alternative modes.

Table 7 The Terraces DRI Trip Reductions	
	Build-out Total
Daily Gross Trip Generation	3,765
(-) Mixed-use reductions (internal capture)	- 408
(-) Alternative modes	- 244
(-) Pass-by trips	- 805
Net Trips	2,308

11.3 Relationship Between Location of Proposed DRI and Regional Mobility

The proposed redevelopment is located within an urban core and classified by DeKalb County as a regional activity center, but is not part of an infill initiative. The proposed DRI is within walking distance to a transit stop (i.e. MARTA), located along Perimeter Center West, Perimeter Center Place, and Meadow Lane Road. The proposed redevelopment is also located within close proximity to GRTA Xpress Route 428-Panola Road to Perimeter Center and proximity to GA 400 and I-285 (regional facilities). This route stops at the Dunwoody MARTA station which is located approximately $\frac{3}{4}$ mile south of the proposed redevelopment. See the attached route maps for detailed route descriptions.

11.4 Relationship Between Proposed DRI and Existing or Planned Transit Facilities

The proposed DRI is within walking distance to several MARTA bus stops located along Perimeter Center West, Perimeter Center Place, and Meadow Lane Road. A route map is included in the Appendix.

Additionally, the Dunwoody MARTA Station is located approximately $\frac{3}{4}$ mile south of the proposed redevelopment. The Sandy Springs MARTA Station is located approximately $\frac{3}{4}$ mile west of the proposed redevelopment along Perimeter Center West. Referring to ARC guidelines, a transit station must be within 0.5 miles of a development to be considered within walking distance. While The Terraces is not currently located within walking distance to a transit station, it should be noted that several transit stops are within walking distance of the proposed redevelopment.

11.5 Transportation Management Area Designation

The proposed redevelopment is located within the Perimeter Transportation Coalition (PTC) Transportation Management Area (TMA) charged with relieving congestion by implementing and promoting transportation alternatives and improvements through a coordinated and comprehensive effort within the Central Perimeter Business District.

11.6 Offsite Trip Reduction and Trip Reduction Techniques

Mixed-use and pass-by trip reductions were taken according to the *ITE Trip Generation Handbook, 2003*. Approximately 10.83% of the gross daily trips will be internal and approximately 10.63% of the gross PM peak hour trips will be internal. A 15% alternative mode reduction (those using transportation modes such as walking,

bicycling, transit, etc.) was taken for all uses. Additionally, for the projected new daily and PM peak hour trips, a 44% daily and PM peak pass-by reduction was used for the proposed non-residential portion of the development.

11.7 Balance of Land Uses – Jobs/Housing Balance

Please refer to the Area of Influence Analysis, located in Section 12.0 of the report.

11.8 Relationship Between Proposed DRI and 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 (2011).

12.0 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 within the proposed DRI.

12.1 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:

This section is included to satisfy the following GRTA Non-expedited review criteria:

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.

12.2 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 (Ashford-Dunwoody Road at Perimeter Center West). 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, DeKalb, Gwinnett and Cobb Counties) can be seen in **Figure 10**. Information obtained from the census tracts can be seen in **Table 8**.

Table 8 Census Tract Information	
Total Households	80,545
Population in Households	183,449
Average household size	2.28
Total Workers	105,950
Workers per Household	1.32
Owner Occupied	53.18%
Rental Occupied	46.82%

As can be seen from the table above, the total population within the Area of Influence is 183,449, residing within 80,545 households (an average of 2.28 people per household). The AOI area totals 44,781 acres.

Using the above calculated average of 2.28 persons per household, it can be anticipated that the proposed DRI will house approximately 911 people (400 proposed dwelling units multiplied by 2.28). Based on information obtained from the Census Tracts, it is estimated that approximately 528 of these expected 911 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 houses for sale in the vicinity of the proposed development (30328 Zip Code). At the time of this report, about 249 homes were listed for sale in the area, ranging in price from \$78,900 to \$2,390,000.

12.3 Development Housing Analysis

The development plan provides for condominiums for sale in three price ranges within the proposed development. **Table 9**, below, displays the number of units for sale, the average sale price for those units, and the number of workers expected to reside in the homes.

Table 9 Estimated Workers per Household				
Tier	Description	Number of Units	Average Price	Number of Workers
1	Condominium Type 1	80	\$304,000	106
2	Condominium Type 2	200	\$525,000	264
3	Condominium Type 3	120	\$585,000	158

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, Gwinnett, and Cobb 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 10**, on the following page.

Table 10
AOI Jobs and Average Salaries

Industry / Business Type	# Businesses	# Employees	Average Salary
Retail Trade	2,521	43,964	\$27,426
Building Materials and Garden Supply	112	2,857	-
General Merchandise Stores	47	3,446	-
Food Stores	206	3,928	-
Auto Dealers and Gas Stations	195	6,509	-
Apparel and Accessory Stores	224	1,678	-
Home Furniture, Furnishings, and Equipment	405	8,195	-
Eating and Drinking Places	687	12,778	-
Miscellaneous Retail Stores	646	4,574	-
Finance	2,074	32,853	\$56,786
Banks, Savings and Lending Institutions	489	7,896	-
Securities and Commodity Brokers	287	3,406	-
Insurance Carriers and Agencies	386	11,826	-
Real Estate	857	8,274	-
Trusts, Holdings, and Other Investments			
Services	6,668	95,048	-
Hotels and Other Lodging	78	6,547	\$16,987
Personal Services	1,243	6,206	-
Business Services	2,331	33,229	\$67,770
Motion Picture and Amusement	256	2,570	\$37,291
Health Services	1,165	22,442	\$41,574
Legal Services	578	3,530	\$67,770
Education Services	223	8,521	\$39,558
Social Services	221	3,023	\$41,574
Miscellaneous, Membership	573	8,981	-
Organizations and Nonclassified			
Agriculture	193	1,305	\$8,743
Mining	3	31	\$27,439
Construction	743	7,258	\$46,623
Manufacturing	538	9,285	\$54,988
Transportation, Communication/Public Utilities	547	9,646	\$92,207
Wholesale Trade	588	6,758	\$61,550
Public Administration	99	1,294	\$44,288
Total	13,974	207,442	-

12.4 Affordable Housing Analysis

Various mortgage calculators are available online to aid in determining affordable housing based on given incomes and income ranges. These calculators were used to determine the minimum income necessary to afford housing within the proposed Terraces development. It was assumed that no more than one third of an individual's income would be used for mortgage costs (principal + interest), that a 6.37% interest rate on a 30-year conventional loan could be obtained, and that a 10% down payment would be made. The income required to purchase a home at the approximate price range was calculated and is displayed in **Table 11**. Because there is an average of 1.32 workers expected per household, the required income was divided by 1.32 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 12 also 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 income level for the three levels of pricing within the development, thus satisfying the GRTA requirement of 25%.

Table 11 Expected Workers				
	Average Sale Price	Necessary Income per Expected Worker	Expected Worker per Price Range	Jobs at or above Necessary Income
1	\$304,000	\$46,690	106	95,301
2	\$525,000	\$80,632	264	9,646
3	\$585,000	\$89,847	158	9,646
Percent of expected workers likely to find necessary employment within the AOI				100%

13.0 ARC'S AIR QUALITY BENCHMARK

The redevelopment is a mixed-use development, containing 400 residential units and 22,600 SF of quality restaurant space on approximately 24.41 acres. Because residential is the dominant use and the dwelling units per acre ratio is approximately 16.39 units per acre, the development meets the ARC criteria (1 b) for a 6% reduction. The proposed redevelopment is predominantly residential and the existing development is predominantly office. Therefore, since the redevelopment is being added to an existing office development, a mixed use credit of 4% was applied per ARC criteria (2c).

Additionally, the proposed redevelopment will connect with the existing sidewalks along Perimeter Center Place, Perimeter Center West, and Ashford Dunwoody Road. Pedestrians will also be able to access other uses within the proposed development via the parking decks and lots, and existing walking trails throughout the development. This pedestrian network meets the ARC criteria (6 e) for a 5% reduction.

There are several bus stops located along Perimeter Center Place, Perimeter Center West, and Meadow Lane Road. Therefore, bus stops are within ¼ mile of the project and meet the ARC criteria (4) for a 3% reduction.

According to ARC criteria, if the project is within 0.5 miles of a rail station, an additional 5% VMT reduction can be taken. The proposed redevelopment is approximately 0.7 miles from a rail station and therefore does not qualify for the 5% reduction.

The proposed development meets the ARC criteria for a total 18% VMT reduction. These reductions are displayed below in **Table 12**.

Table 12 ARC VMT Reductions	
Mixed-Use Projects where Residential is the dominant use	
Greater than 15 dwelling units/acre	-6%
10% of Gross floor area is office	-4%
Bike/ped networks in development that meet one Density 'target' and connect to adjoining uses	-5%
Project is located within ¼ mile of a bus stop	-3%
Total Reductions	18%