

# MAC IV – Derrick Road DRI #2737

Union City, Georgia

Report Prepared: October 2017

Prepared for:

Majestic Realty Co.

Prepared by:



Kimley-Horn and Associates, Inc. 2 Sun Court, Suite 450 Peachtree Corners, GA 30092 019679011 Transportation Analysis

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#### Available Upon Request

#### EXECUTIVE SUMMARY

This report presents the analysis of the anticipated traffic impacts of the proposed *MAC IV - Derrick Road* development located in Union City, Georgia. The approximate 63.28-acre site is located southwest of the intersection of South Fulton Parkway at Derrick Road, and is bordered by South Fulton Parkway to the north and Derrick Road to the east. The proposed development will be an industrial warehouse facility with approximately 550,000 SF of warehousing/distribution space in one (1) building.

The project is a Development of Regional Impact (DRI) and is subject to Georgia Regional Transportation Authority (GRTA) and Atlanta Regional Commission (ARC) review due to the project size exceeding 500,000 SF of an industrial development. The DRI trigger for this development is the filing of the Land Disturbance Permit (LDP) application with the City of Union City, combined with the proposed development exceeding 500,000 gross square feet for industrial developments within a developing suburbs area. The DRI was formally triggered with the filing of the Initial DRI Information (Form 1) on September 25, 2017 by the City of Union City.

According to GRTA's Procedures and Principles for GRTA Development of Regional Impact Review, the proposed DRI complies with the Expedited Review Criteria in **Section 3-102, Part B – Limited Trip Generation**, which states:

...the land uses within the proposed DRI are such that the amount of trips generated by the development is likely to have minimal impact on the road network.

- 1. No more than one thousand (1,000) gross daily trips generated by the DRI based on a trip generation memorandum; or,
- 2. More than one thousand (1,000) but no more than three thousand (3,000) gross daily trips will be generated by the DRI, based on a trip generation memorandum and requires the submittal of an Access Analysis; or,
- 3. The proposed DRI is projected to generate no more than one hundred (100) gross PM peak hour weekday trips based on a trip generation memorandum.

The present zoning classification of the project site is Town Center Mixed Use (TCMU). The site is surrounded by a combination of land uses, including Town Center Mixed Use (TCMU) to the north and west and Conditional (C) to the south and east. There is no rezoning associated with this development.

The proposed project is expected to be completed by 2018. The proposed development will consist of the following land use(s) and densities:

Warehouse Square Footage:

550,000 SF

Capacity analyses were performed throughout the study network for the Existing 2017 conditions, the Projected 2018 No-Build conditions, and the Projected 2018 Build conditions.

- Existing 2017 conditions represent traffic volumes that were collected in August 2017 by performing AM and PM peak hour turning movement counts.
- Projected 2018 No-Build conditions represent the existing traffic volumes grown for one (1) year at 2.0 percent per year throughout the study network, plus projected trips associated with a constructed, but unoccupied 1,000,049 SF warehouse building located northeast of the intersection of Derrick Road at South Fulton Parkway.
- Projected 2018 Build conditions represent the Projected 2018 No-Build conditions with the addition of the project trips that are anticipated to be generated by the *MAC IV Derrick Road* development.

Based on the **Existing 2017** conditions (*present conditions; i.e.* <u>excludes</u> the background traffic growth, unoccupied warehouse trips, and the estimated project trips from the MAC IV - Derrick Road DRI), all study intersections are projected to operate within the acceptable level-of-service (LOS) standard of D.

Based on the **Projected 2018 No-Build** conditions (*includes* background traffic growth and unoccupied warehouse trips, but <u>excludes</u> the estimated project trips from the MAC IV - Derrick Road DRI), all study intersections are projected to operate within the acceptable level-of-service (LOS) standard of D.

Based on the **Projected 2018 Build** conditions (*includes* the background traffic growth, unoccupied warehouse trips, and the estimated project trips from the MAC IV - Derrick Road DRI), all study intersections are projected to operate within the acceptable level-of-service (LOS) standard of D.

The following frontage road and site-access improvements are recommended to serve the traffic associated with the *MAC IV* - *Derrick Road* development:

- Intersection #1: Derrick road at South Fulton Parkway
  - Along Derrick Road, lengthen the existing northbound left turn lane to provide a total of 235 feet of storage and a 100-foot taper.
  - Along South Fulton Parkway, lengthen the existing westbound left turn lane to provide 310 feet of storage, per GDOT minimum design requirements for a 55 mph road. Convert the westbound left turn to a permissive-protected left turn with a four-level flashing yellow arrow.
- Intersection #3: Derrick Road at Proposed Site Driveway #1
  - On the site, construct one (1) shared eastbound left-right turn lane (with a channelized right turn radius) exiting the site onto Derrick Road and two (2) ingress lanes entering the site.
  - Along Derrick Road, construct a short free-flowing, channelized southbound right turn lane.

#### **1.0 PROJECT DESCRIPTION**

#### 1.1 Introduction

This report presents the analysis of the anticipated traffic impacts of the proposed *MAC IV* - *Derrick Road* development located in Union City, Georgia. The approximate 63.28-acre site is located southwest of the intersection of South Fulton Parkway at Derrick Road, and is bordered by South Fulton Parkway to the north and Derrick Road to the east.

The proposed development will be an industrial warehouse facility with approximately 550,000 SF of warehousing space. Because the project will exceed 500,000 square feet for industrial developments within a developing suburbs area, 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.

According to GRTA's Procedures and Principles for GRTA Development of Regional Impact Review, the proposed DRI complies with the Expedited Review Criteria in **Section 3-102, Part B – Limited Trip Generation**, which states:

...the land uses within the proposed DRI are such that the amount of trips generated by the development is likely to have minimal impact on the road network.

- 1. No more than one thousand (1,000) gross daily trips generated by the DRI based on a trip generation memorandum; or,
- 2. More than one thousand (1,000) but no more than three thousand (3,000) gross daily trips will be generated by the DRI, based on a trip generation memorandum and requires the submittal of an Access Analysis; or,
- 3. The proposed DRI is projected to generate no more than one hundred (100) gross PM peak hour weekday trips based on a trip generation memorandum.

**Figure 1** provides the site location of the *MAC IV - Derrick Road* development. **Figure 2** and **Figure 3** provide near and far aerial views of the project site and surrounding area. Field review photographs taken within the vicinity of the study network are located in the site photo log in **Appendix A**. The City of Union City Zoning Map and the *Atlanta Region's Plan Unified Growth Policy Map* are included in **Appendix B**.

The proposed project is expected to be completed by 2018, and this analysis will consider the full buildout of the proposed site in 2018. A summary of the proposed land-use and density is provided below in **Table 1**.

Table 1: Proposed Land Uses						
Warehousing	550,000 SF					





# Kimley **»Horn**

MAC IV – Derrick Road DRI #2737 Transportation Analysis

Site Aerial (Zoomed Out)



# Kimley **»Horn**

MAC IV – Derrick Road DRI #2737 Transportation Analysis

Site Aerial (Zoomed In) Figure 3

#### 1.2 Site Plan Review

The proposed development is located on an approximately 63.28-acre site in Union City, Georgia. The project site is bordered by South Fulton Parkway to the north and Derrick Road to the east. The proposed development will be an industrial warehouse facility with approximately 550,000 SF of warehousing/distribution space. The project will include one (1) new warehouse/distribution building. The property is currently undeveloped. A reference of the proposed site plan is provided in **Appendix C**. A full-sized site plan consistent with GRTA's Site Plan Guidelines is also being submitted as part of the review package.

#### 1.3 Site Access

As currently envisioned, the proposed development will be served by one (1) full-movement driveway along Derrick Road. Derrick Road immediately adjacent to the site is a two-lane, undivided, paved local road with a posted speed limit of 45 mph. A summary of the proposed site access point follows:

1. Proposed Driveway #1 – a proposed, side-street stop-controlled, full-movement driveway located on Derrick Road approximately 300 feet south of the intersection of South Fulton Parkway at Derrick Road.

The site access point provides vehicular access to the development. Internal private roadways throughout the site provide access to all buildings and parking facilities. Refer to the site plan in **Appendix C** for a visual representation of vehicular access and circulation throughout the proposed development. The site driveway and internal roadways provide access to all parking on the site. The site plan is still under development and the exact number and location of parking spaces are subject to change. Parking is currently proposed to be provided as follows:

Parking Provided: 278

Trailer Space Provided: 116

#### 1.4 Bicycle and Pedestrian Facilities

Pedestrian facilities (sidewalks) and bicycle facilities do not currently exist along the project site frontage. Pedestrian facilities (crosswalks and signals) do currently exist at the intersection of South Fulton Parkway at Derrick Road northeast of the project site, however no existing sidewalks tie into these facilities. Pedestrian facilities (sidewalks and crosswalks) are proposed to be constructed along Derrick Road within the limits of this development, and will tie into the existing pedestrian facilities at South Fulton Parkway at Derrick Road.

#### 1.5 Transit Facilities

There are no direct transit routes located within the vicinity of the project; therefore, no alternative mode reductions were taken.

#### 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. Background traffic can include a base growth rate based on historical count data as well as population growth data and estimates, and can also include trips anticipated from nearby or adjacent projects. Background traffic for this project includes the following:

- A 2.0 percent per year background traffic growth rate was used for all roadways. This background growth rate was used to account for other proposed development activity in the area.
- In addition to the background growth rate, trips generated by an existing 1,000,049 SF warehouse building located northeast of the intersection of Derrick Road at South Fulton Parkway were considered. This 1,000,049 SF building is currently constructed but NOT occupied or generating traffic. Project trips associated with the nearby development were assigned to the MAC IV Derrick Road DRI study network in a manner consistent with Kimley Horn's *Traffic Signal Warrant Analysis [for] South Fulton Parkway (SR 14 Spur) at Derrick Road*, dated February 2015. Project trip data for this development is provided in **Appendix H**.

The projected 2018 No-Build condition volumes were determined using the Existing 2017 traffic volumes, plus the 2% background growth rate, plus the traffic associated with the 1,000,049 SF unoccupied warehouse building located north of South Fulton Parkway.

Projected 2018 Build volumes were then developed by adding the proposed MAV IV – Derrick Road DRI traffic to the projected 2018 No-Build volumes per the distributions and assignments discussed in *Section 5.0* of this report.

#### 2.2 Traffic Data Collection

Weekday peak hour turning movement counts were collected on Thursday, August 24th, 2017 at the study intersections during the AM and PM peak periods. Peak hours for all intersections are shown in **Table 2**.

	Table 2: Peak Hour Summary									
	Intersection	Date Collected	AM Peak Hour	PM Peak Hour						
1.	Derrick Road at South Fulton Parkway	August 24, 2017	7:15 AM - 8:15 AM	5:00 PM – 6:00 PM						
2.	Derrick Road at Koweta Road	August 24, 2017	7:00 AM – 8:00 AM	5:00 PM – 6:00 PM						

The collected peak hour turning movement traffic counts are shown in Appendix D.

#### 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 9.0.* All intersection signal timings were optimized using *Synchro Professional, Version 9.0.* 

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 and the major street left-turn movements. Low levels-of-service for side street approaches are not uncommon, as vehicles may experience significant delays in turning onto a major roadway.

### 3.0 STUDY NETWORK

#### 3.1 Gross Trip Generation

Traffic for the proposed land uses and densities were calculated using methodology contained in the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, Ninth Edition.* Gross trips generated are displayed below in **Table 3**.

Table 3: Gross Trip Generation								
Land Use	Density	ITE Code	Daily Traffic		AM Peak Hour		PM Peak Hour	
	-		Enter	Exit	Enter	Exit	Enter	Exit
* Heavy Vehicle (Truck) Trips:								
Warehousing	550,000 SF	150	176	176	13	4	6	16
Employee (Car) Trips:								
Warehousing	550,000 SF	150	892	892	154	40	38	117
Total New Trips				1,068	167	44	44	133

\* Note: Truck percentage per ITE's Trip Generation Manual.

#### 3.2 Trip Distribution

The directional distribution and assignment of new project trips were based on the project land uses, a review of the land use densities and road facilities in the area, engineering judgment, and methodology discussions with the Georgia Regional Transportation Authority (GRTA), Atlanta Regional Commission (ARC), and Douglas County staff. (See Section 5.0 Trip Distribution and Assignment).

#### 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 the intersection during that peak period becomes LOS E, consistent with the GRTA Letter of Understanding.

#### 3.4 Study Network Determination

A general study area was determined based on a review of land uses and population densities in the area as well as a review of peak hour traffic counts and engineering judgement. The study area was agreed upon during methodology discussions with GRTA, ARC, and Douglas County staff. Per the Letter of Understanding, the study area consists of the following three (3) intersections, which includes proposed site driveways, as described in **Table 4**.

The study network includes one (1) signalized intersection and two (2) side-street stop-controlled intersections as noted in **Table 4**. The study intersections are shown in **Figure 4**.

Table 4: Intersection Control Summary					
Intersection	Control				
1. Derrick Road at South Fulton Parkway	Signal				
2. Derrick Road at Koweta Road	Stop Control				
3. Derrick Road at Proposed Site Driveway #1	Stop Control				

The intersections listed in **Table 4** were analyzed for the Existing 2017 conditions, the Projected 2018 No-Build conditions, and the Projected 2018 Build conditions. The Projected 2018 No-Build conditions represent the existing traffic volumes grown for one (1) year at 2.0 percent per year throughout the study network, plus projected trips associated with a constructed, but unoccupied 1,000,049 SF warehouse building located northeast of the intersection of Derrick Road at South Fulton Parkway.

The Projected 2018 Build conditions add the project trips associated with the *MAC IV - Derrick Road* development to the Projected 2018 No-Build conditions.

#### 3.5 Existing Roadway Facilities

Roadway classification descriptions and estimated Average Annual Daily Traffic (AADT) for the entire study area are provided in **Table 5** (bolded roadways run adjacent to the site). AADT totals were obtained through GDOT's historical traffic count database, where available.

Table 5: Roadway Classifications									
Roadway	No. of Lanes	Posted Speed Limit (MPH)	Approximate Average Annual Daily Traffic (AADT)	Functional Classification					
South Fulton Parkway (east of SR 92)	4	55	16,700	Principal Arterial					
Derrick Road (south of South Fulton Parkway)	2	45	*2,500	Local Road					
Koweta Road (west of Derrick Road)	2	35	1,640	Major Collector					

\* Note: Estimated, no GDOT count station available.



#### 4.0 TRIP GENERATION

As stated previously, gross trips associated with the proposed development were estimated using the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, 9<sup>th</sup> Edition, 2012*, using equations where available. Trip generation for this proposed development is calculated based upon the following land use: Warehousing (ITE 150). The *ITE Trip Generation Manual, 9<sup>th</sup> Edition, 2012*, also provides the daily and peak hour weighted average truck trip generation rate.

Table 6: Net New Trip Generation									
	Daily Traffic			AM Pea	k Hour	PM Peak Hour			
	Total Enter Exit			Enter	Exit	Enter	Exit		
Gross Project Trips	2,136	1,068	1,068	167	44	44	133		
Heavy Vehicle (Truck) Trips*	352	176	176	13	4	6	16		
Employee (Car) Trips	1,784	892	892	154	40	38	117		
Alternative Mode Reduction	- 0	- 0	- 0	- 0	- 0	- 0	- 0		
Pass-by Reduction	- 0	- 0	- 0	- 0	- 0	- 0	- 0		
Total Trips	2,136	1,068	1,068	167	44	44	133		

The total (net) trips generated and analyzed in this report are listed in Table 6.

\* Truck percentage per ITE's Trip Generation Manual.

A more detailed trip generation analysis summary table is provided in **Appendix E**.

#### 5.0 TRIP DISTRIBUTION AND ASSIGNMENT

New trips were distributed onto the roadway network using the percentages developed as described in *Section 3.2* of this report, and as agreed to during methodology discussions with GRTA, ARC, and Douglas County staff.

**Figure 5** and **Figure 6** display the anticipated distribution and assignment of heavy vehicle (truck) trips and employee (car) trips throughout the study roadway network. These trip assignment percentages were applied to the net new trips expected to be generated by the development, and the volumes were assigned to the roadway network. The combined peak hour project trips, anticipated to be generated by the proposed *MAC IV - Derrick Road* development, are shown in **Figure 7**, by turning movement.

Detailed intersection volume worksheets are provided in Appendix F.







#### 6.0 TRAFFIC ANALYSIS

#### 6.1 Existing 2017 Conditions

The observed existing peak hour traffic volumes were entered into *Synchro 9.0,* and capacity analyses were performed for the AM and PM peak hours.

The existing peak hour traffic volumes are displayed in **Figure 8**, and the results of the capacity analyses for the Existing 2017 conditions are shown in **Table 7**. Detailed *Synchro* analysis reports are available upon request.

Table 7: Existing 2017 Level-of-Service Summary     LOS (delay in seconds)									
Intersection Control Approach/ LOS AM Peak PM Peak Movement Std. Hour Hour									
1. Derrick Road at South Fulton Parkway	Signal	Overall	D	C (22.3)	B (19.9)				
2 Derriek Read at Koweta Read		EB Left	D	A (7.5)	A (7.5)				
	10050	SB	D	A (9.3)	A (9.3)				
3. Derrick Road at Proposed Site Driveway #1	TWSC*	N/a	N/a	N/a	N/a				

\* Two-Way Stop-Control / Side-Street Stop-Control.

As shown in **Table 7**, all existing study intersections currently operate at or above their acceptable <u>overall</u> level-of-service standard during the AM and PM peak hours for the Existing 2017 conditions. Therefore, there are no recommended improvements for the Existing 2017 conditions scenario.



#### 6.2 Projected 2018 No-Build Conditions

To account for growth in the vicinity of the proposed development, the existing traffic volumes were increased for one (1) year at 2.0 percent per year throughout the study network. In addition, projected trips associated with a constructed, but unoccupied 1,000,049 SF warehouse building located northeast of the intersection of Derrick Road at South Fulton Parkway were added to the network. These volumes represent the portion of an additional 293 AM Peak Hour trips and 260 PM Peak Hour trips (refer to **Appendix H** for more detail) that impact the network. These volumes were entered into *Synchro 9.0*, and capacity analyses were performed. The Projected 2018 No-Build conditions were analyzed using existing roadway geometry and existing intersection control types.

The intersection laneage and traffic volumes for the Projected 2018 No-Build conditions are shown in **Figure 9**. The results of the capacity analyses for the Projected 2018 No-Build are shown in **Table 8**. Detailed *Synchro* analysis reports are available upon request.

	Table 8: Projected 2018 No-Build Level-of-Service Summary   LOS (delay in seconds)									
Intersection Control Approach/ LOS AM Peak PM Pea Movement Std. Hour Hour										
1.	Derrick Road at South Fulton Parkway	Signal	Overall	D	C (22.4)	C (20.7)				
2	Derrick Road at Koweta Road	TWSC*	EB Left	D	A (7.5)	A (7.5)				
Ζ.			SB	D	A (9.4)	A (9.4)				
3.	Derrick Road at Proposed Site Driveway #1	TWSC*	N/a	N/a	N/a	N/a				

\* Two-Way Stop-Control / Side-Street Stop-Control.

As shown in **Table 8**, all study intersections are expected to operate at or above their acceptable <u>overall</u> level-of-service standard during the AM and PM peak hours for the Projected 2018 No-Build conditions. Therefore, there are no recommended improvements for the Projected 2018 No-Build conditions scenario.



#### 6.3 Projected 2018 Build Conditions

The traffic associated with the proposed *MAC IV* - *Derrick Road* development was added to the Projected 2018 No-Build volumes. These volumes were then entered into *Synchro 9.0*, and capacity analyses were performed. The Projected 2018 Build conditions were analyzed using existing intersection control types and proposed site driveways as shown in the DRI site plan. In addition, the recommended storage and phasing improvements at Intersection #1 were included in the models.

The intersection laneage and traffic volumes used for the Projected 2018 Build conditions are shown in **Figure 10**. The results of the capacity analyses for the Projected 2018 Build conditions are shown in **Table 9**. Detailed *Synchro* analysis reports are available upon request.

	Table 9: Projected 2018 B     LOS (del	u <b>ild Level-c</b> ay in second	of-Service Sur ds)	nmary		
	Intersection	Control	Approach/ Movement	LOS Std.	AM Peak Hour	PM Peak Hour
1.	Derrick Road at South Fulton Parkway	Signal	Overall	D	C (30.4)	C (23.8)
2	Derrick Road at Koweta Road		EB Left	D	A (7.5)	A (7.5)
Ζ.		10050	SB	D	A (9.6)	A (9.5)
2	Derrick Road at Proposed Site Drivoway #1		NB Left	D	A (7.4)	A (7.6)
З.	Demok Road at Proposed Site Driveway #1	10030	EB	D	B (10.5)	B (11.0)

\* Two-Way Stop-Control / Side-Street Stop-Control.

As shown in **Table 9**, all study intersections are expected to operate at or above their acceptable <u>overall</u> level-of-service standard during the AM and PM peak hours for the Projected 2018 Build conditions. It should be noted that based upon the queueing analysis presented in *Section 6.4*, the westbound left turn at the intersection of Derrick Road at South Fulton Parkway is expected to experience excessive queuing under 2018 Build Conditions due to the existing permissive-only phasing. Therefore, storage length and phasing improvements are needed to improve level-of-service for this individual movement as outlined below.

The following improvements are recommended to serve the traffic associated with the MAC IV - Derrick Road development:

- Intersection #1: Derrick road at South Fulton Parkway
  - Along Derrick Road, lengthen the existing northbound left turn lane to provide a total of 235 feet of storage and a 100-foot taper.
  - Along South Fulton Parkway, lengthen the existing westbound left turn lane to provide 310 feet of storage, per GDOT minimum design requirements for a 55 mph road. Convert the westbound left turn to a permissive-protected left turn with a four-level flashing yellow arrow.
- Intersection #3: Derrick Road at Proposed Site Driveway #1
  - On the site, construct one (1) shared eastbound left-right turn lane (with a channelized right turn radius) exiting the site onto Derrick Road and two (2) ingress lanes entering the site.
  - Along Derrick Road, construct a short free-flowing, channelized southbound right turn lane.



#### 6.4 Queuing Analysis

Queuing analyses were performed for the weekday AM and PM peak hours for critical movements in the study network under Unimproved and Improved Build 2018 conditions using *Synchro Professional, Version 9.0.* The queuing analysis focused on movements that will be directly impacted by projected project traffic upon build-out.

The 95th percentile queue lengths are summarized below in **Table 10**. Reported queues and existing storage lengths were rounded up to the nearest 5-foot increment. Queues are reported for "Unimproved" conditions (*existing geometry and phasing with 2018 Build volumes*) and "Improved" Conditions (*recommended geometry and phasing with 2018 Build volumes*).

		Table '	10: Queuing 95 <sup>th</sup> Perc	Analysis	– 2018 Bu e Length, in	uild Con <i>Feet</i>	ditions			
	Intersection	Control	Approach/ Movement	Existing Storage	Propo Lenç	sed jth	95 Perce Que Leng (Unimp	5 <sup>th</sup> entile eue gth** proved)	95 Perce Que Leng (Impr	5 <sup>th</sup> entile eue gth** oved)
					Storage	Taper	AM Peak	PM Peak	AM Peak	PM Peak
1.	Derrick Road		NB Left	45'	235'	100'	40'	75'	45'	70'
	at South Fulton	Signal	EB Right	115'	N/A	N/A	30'	10'	15'	0'
	Parkway		*WB Left	265'	310'	100'	#202'	65'	75'	45'

\*Proposed Storage Length and Taper is based upon GDOT minimum requirements for a 55 MPH road.

\*\*Queue Length is derived from Synchro 95<sup>th</sup> Percentile Queue, rounded up to the nearest 5-foot interval.

# = Synchro indicates that volume for the 95<sup>th</sup> percentile cycle exceeds capacity.

As shown, Synchro indicates that the westbound left turn volume is expected to exceed capacity upon build-out of the project without improvements to the existing storage and signal phasing. Therefore, it is recommended to improve the westbound left turn by converting the existing permissive-only phasing to permissive-protected phasing with a flashing yellow arrow. Along with minor split and offset adjustments, this is expected to improve level-of-service for this movement and prevent excessive queuing and delays. Further, it is recommended to increase the available storage to meet GDOT minimum design requirements for left turns on a 55 MPH road.

Justification for the permissive-protected phasing based upon GDOT standards is as follows:

- GDOT's volume threshold for a LAGGING protected left-turn phase is 75 vehicles per hour. GDOT's volume threshold for a LEADING protected left-turn phase is 125 vehicles per hour.
  - There are 110 WB left-turns. Lagging protected phase criteria is met.
- GDOT's cross-product threshold for a LEADING protected left-turn phase is 50,000 (cross product of left-turns and opposing throughs divided by the number of opposing through lanes).
  - Based on 110 WB left-turns, 1209 EB throughs, and 2 EB through lanes, the cross product is 66,495 (greater than 50,000). Leading protected phase criteria is met.

### 7.0 INGRESS/EGRESS ANALYSIS

Vehicular access to the *MAC IV* - *Derrick Road* development is proposed at one (1) location. The site driveway location is discussed in *Section 1.3*.

The proposed site driveway provides vehicular access to the entire development. Internal private roadways provide access throughout the project site.

Capacity analyses were performed for the proposed site driveway intersection using *Synchro 9.0*. The results of the capacity analyses for this intersection (LOS, delay, and recommended laneage) is reported in *Section 6.3* of this report. Based on the Projected 2018 Build conditions, the proposed site driveway intersections are anticipated to operate at an acceptable level-of-service.

#### 8.0 IDENTIFICATION OF PROGRAMMED PROJECTS

According to ARC's Transportation Improvement Program, the Regional Transportation Plan (Atlanta Region's Plan), GDOT's construction work programs, Douglas County's programmed projects, and the GA STIP, the following projects are programmed or planned to be completed by the respective years within the vicinity of the proposed development. The identified projects are listed in **Table 11** below.

		Tab	le 11: Programmed Improvements
#	Year	Project ID	Project Description
1	Mid-Term (next 5 years*)	FS-208	Construct two (2) roundabouts on the southwestern and northeastern corners of the existing intersection of Butner Road at Stonewall Tell Road.
2	Short-Term (first 5 years*)	R-23c	Interchange improvement (CFI) at SR 92 at South Fulton Parkway.
3	Mid-Term (next 5 years*)	R-112	Intersection improvements (left turn lanes) at South Fulton Parkway at Stonewall Tell Road.
4	Long-Term (10 years and beyond*)	ASP-FS-230	Roadway widening along SR 92 from South Fulton Parkway to SR 70.
5	Long-Term (10 years and beyond*)	R-114	Grade separation along South Fulton Parkway at Derrick Road. Construct a tight diamond interchange.
6	Long-Term (10 years and beyond*)	R-117	Grade separation along South Fulton Parkway at SR92. Construct a tight diamond interchange.

\* South Fulton CTP published in November 2013.

Fact sheets for projects can be found in Appendix G.

#### 9.0 INTERNAL CIRCULATION ANALYSIS

Internal roadways throughout the site provide vehicular access to all buildings and parking on the site. The proposed site driveways will provide access to buildings on the site. A detailed copy of the proposed site plan with internal site roadways is provided in **Appendix C** and a full-sized site plan is attached to the report.

## Appendix A Site Photo Log

# Kimley **»Horn**

City of Union City, GA Photograph Sheet

KHA Job No.:	0196790	11		
Date:	Septemb	er 15, 2	017	
Page:	1	of	2	

#### MAC IV - Derrick Road DRI #2737





# Kimley **»Horn**

City of Union City, GA Photograph Sheet

KHA Job No.:	0196790	11		
Date:	Septemb	er 15, 2	2017	
Page:	2	of	2	

#### MAC IV - Derrick Road DRI #2737



Photo No. 4

Comments:

## Appendix B Land Use and Zoning Map





# Appendix C Proposed Site Plan



## Appendix D Raw Traffic Count Data

Prepared by National Data & Surveying Services

## Derrick Rd SW & S Fulton Pkwy

Peak Hour Turning Movement Count



#### Project ID: 17-09419-001 Location: Derrick Rd SW & S Fulton Pkwy City: Atlanta

#### Day: Thursday Date: 08/24/2017

			Descial	D I OV					0	Foups	Printed	- Cars,	PU, Vai	ns - Hea	vy Truc	CKS					0 Follow	Blasses			
			Derrick	RdSV	v				Derrick	RdSW					SFulto	n Pkwy					SFulton	Pkwy			
0 T		-	North	bound					South	bound					Eastb	bound					Westbo	bund			
Start Time	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Ihru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Int. I otal
6:45 AM	5	15	25	0	0	45	30	4	8	0	0	42	38	304	2	0	0	344	6	73	16	0	0	95	526
Total	5	15	25	0	0	45	30	4	8	0	0	42	38	304	2	0	0	344	6	73	16	0	0	95	526
7:00 AM	0	10	20	0	0	40	27	10	10	0	0	65	40	200	2	0	0	221	7	<b>E E</b>	26	0	0	00	E24
7:00 AM	5	21	25	0	0	40	61	10	23	0	0	00	40	200	1	0	0	350	8	100	20	0	0	130	634
7:30 AM	5	15	23	0	0	43	67	21	20	0	0	117	18	333	1	0	0	352	5	121	22	1	0	149	661
7:45 AM	6	14	22	0	0	42	59	13	19	0	0	91	13	287	1	0	0	301	5	96	4	0	0	105	539
Total	16	60	100	0	0	176	224	54	89	0	0	367	120	1208	6	0	0	1334	25	372	83	1	0	481	2358
8:00 AM	10	13	19	0	0	42	33	11	26	0	0	70	18	261	5	1	0	285	5	128	13	0	0	146	543
8:15 AM	7	4	22	0	0	33	28	5	15	0	0	48	15	227	3	0	0	245	6	120	7	0	0	133	459
8:30 AM	1	7	15	0	0	23	21	12	11	0	0	44	9	234	5	0	0	248	3	108	5	0	0	116	431
Total	18	24	56	0	0	98	82	28	52	0	0	162	42	722	13	1	0	778	14	356	25	0	0	395	1433
***BREAK***																									
4:00 PM	3	7	3	0	0	13	13	6	15	0	0	34	11	115	3	0	0	129	10	269	12	0	0	291	467
4:15 PM	2	2	4	0	0	8	9	10	15	0	0	34	12	124	3	2	0	141	8	273	14	0	0	295	478
4:30 PM	5	10	9	0	0	24	11	13	16	0	0	40	9	123	1	2	0	135	18	323	20	0	0	361	560
4:45 PM	3	6	11	0	0	20	18	11	31	0	0	60	11	108	5	0	0	124	11	267	13	0	0	291	495
Total	13	25	27	0	0	65	51	40	77	0	0	168	43	470	12	4	0	529	47	1132	59	0	0	1238	2000
5:00 PM	8	6	8	0	0	22	20	16	26	0	0	62	16	105	1	0	0	122	20	337	16	0	0	373	579
5:15 PM	5	10	12	0	0	27	13	16	31	0	0	60	18	113	2	0	0	133	17	326	21	0	0	364	584
5:30 PM	3	11	7	0	0	21	20	18	62	0	0	100	14	135	9	0	0	158	13	302	20	1	0	336	615
5:45 PM	6	8	7	0	0	21	17	10	19	0	0	46	18	132	2	0	0	152	26	278	25	1	0	330	549
Total	22	35	34	0	0	91	70	60	138	0	0	268	66	485	14	0	0	565	76	1243	82	2	0	1403	2327
Grand Total	74	159	242	0	0	475	457	186	364	0	0	1007	309	3189	47	5	0	3550	168	3176	265	3	0	3612	8644
Appreh %	15.6	33.5	50.9	0.0	0.0	470	45.4	18.5	36.1	0.0	0.0	. 507	8.7	89.8	1.3	0.1	0.0	0000	4.7	87.9	7.3	0.1	0.0	0012	0044
Total %	0.9	1.8	2.8	0.0	0.0	5.5	5.3	22	4.2	0.0	0.0	11.6	3.6	36.9	0.5	0.1	0.0	41 1	19	36.7	3.1	0.0	0.0	41.8	
Cars. PU. Vans	72	158	242	0.0	0.0	472	455	184	359	0.0	0.0	998	305	3120	45	5	0.0	3475	168	3118	262	0.0	0	3551	8496
% Cars. PU. Vans	97.3	99.4	100.0	0.0	0.0	99.4	99.6	98.9	98.6	0.0	0.0	99.1	98.7	97.8	95.7	100.0	0.0	97.9	100.0	98.2	98.9	0.0	0.0	98.3	98.3
Heavy Trucks	2	1	0	0		3	2	2	5	0		9	4	69	2	0		75	0	58	3	0		61	148
%Heavy Trucks	2.7	0.6	0.0	0.0	0.0	0.6	0.4	1.1	1.4	0.0	0.0	0.9	1.3	2.2	4.3	0.0	0.0	2.1	0.0	1.8	1.1	0.0	0.0	1.7	1.7

Project ID: Location: City:	17-0941 Derrick Atlanta	9-001 Rd SW	& S Fi	ulton Pk	wy			F	PEAK	кно	OUR	S						Day: Date:	Thursd 08/24/2	ay 017	
AM		Deri	rick Rd	SW			Derr	ick Rd	SW			S Fu	Iton Pk	wy			S Fi	ulton Pk	wy		
Start Time	Left	Thru	Rgt	Uturn /	App. Total	Left	Thru	Rgt	Uturn /	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rat	Uturn	App. Total	Int. Total
Peak Hour Analys	is from	06:45 A	M to 08	3:45 AM									, in the second s					Ū.			
Peak Hour for Ent	tire Inter	section	Begins	at 07:15	5 AM																
7:15 AM	5	21	25	0	51	61	10	23	0	94	49	300	1	0	350	8	100	31	0	139	634
7:30 AM	5	15	23	0	43	67	21	29	0	117	18	333	1	0	352	5	121	22	1	149	661
7:45 AM	6	14	22	0	42	59	13	19	0	91	13	287	1	0	301	5	96	4	0	105	539
8:00 AM	10	13	19	0	42	33	11	26	0	70	18	261	5	1	285	5	128	13	0	146	543
Total Volume	26	63	89	0	178	220	55	97	0	372	98	1181	8	1	1288	23	445	70	1	539	2377
% App. Total	14.6	35.4	50.0	0.0	100	59.1	14.8	26.1	0.0	100	7.6	91.7	0.6	0.1	100	4.3	82.6	13.0	0.2	100	
PHF					0.873					0.795					0.915					0.904	0.899
Cars, PU, Vans	25	62	89	0	176	219	53	96	0	368	97	1162	8	1	1268	23	440	69	1	533	2345
% Cars, PU, Vans	96.2	98.4	100.0	0.0	98.9	99.5	96.4	99.0	0.0	98.9	99.0	98.4	100.0	100.0	98.4	100.0	98.9	98.6	100.0	98.9	98.7
Heavy Trucks	1	1	0	0	2	1	2	1	0	4	1	19	0	0	20	0	5	1	0	6	32
%Heavy Trucks	3.8	1.6	0.0	0.0	1.1	0.5	3.6	1.0	0.0	1.1	1.0	1.6	0.0	0.0	1.6	0.0	1.1	1.4	0.0	1.1	1.3

РМ																					
		Der	rick Rd	SW			Deri	ick Rd	SW			S Fi	lton Pl	kwy			SF	ulton P	kwy		
		No	orthbou	nd			So	uthbou	nd			Ea	stbour	nd			w	estbou	nd		
Start Time	Time Left Thru Rgt Uturn App						Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn Ap	pp. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analy	sis from	04:00 F	PM to 06	5:00 PM																	

Peak Hour for Entire Intersection Begins at 05:00 PM

5:00 PM	8	6	8	0	22	20	16	26	0	62	16	105	1	0	122	20	337	16	0	373	579
5:15 PM	5	10	12	0	27	13	16	31	0	60	18	113	2	0	133	17	326	21	0	364	584
5:30 PM	3	11	7	0	21	20	18	62	0	100	14	135	9	0	158	13	302	20	1	336	615
5:45 PM	6	8	7	0	21	17	10	19	0	46	18	132	2	0	152	26	278	25	1	330	549
Total Volume	22	35	34	0	91	70	60	138	0	268	66	485	14	0	565	76	1243	82	2	1403	2327
% App. Total	24.2	38.5	37.4	0.0	100	26.1	22.4	51.5	0.0	100	11.7	85.8	2.5	0.0	100	5.4	88.6	5.8	0.1	100	
PHF					0.843					0.670					0.894					0.940	0.946
Cars, PU, Vans	21	35	34	0	90	69	60	135	0	264	66	471	14	0	551	76	1228	82	2	1388	2293
% Cars, PU, Vans	95.5	100.0	100.0	0.0	98.9	98.6	100.0	97.8	0.0	98.5	100.0	97.1	100.0	0.0	97.5	100.0	98.8	100.0	100.0	98.9	98.5
Heavy Trucks	1	0	0	0	1	1	0	3	0	4	0	14	0	0	14	0	15	0	0	15	34
%Heavy Trucks	4.5	0.0	0.0	0.0	1.1	1.4	0.0	2.2	0.0	1.5	0.0	2.9	0.0	0.0	2.5	0.0	1.2	0.0	0.0	1.1	1.5

Prepared by National Data & Surveying Services

## Derrick Rd SW & Koweta Rd

## Peak Hour Turning Movement Count



#### Project ID: 17-09419-002 Location: Derrick Rd SW & Koweta Rd City: Atlanta

#### Day: Thursday Date: 08/24/2017

										Groups	Printed	I - Cars,	PU, Var	ns - Hea	vy Truo	cks									
			Derrick	Rd SW	1				Derric	Rd SW	1				Kowe	ta Rd					Koweta	a Rd			
			North	bound					South	bound					Eastb	ound					Westbo	ound			
Start Time	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds A	pp. Total	Left	Thru	Rgt	Uturn	Peds /	pp. Total	Int. Total
6:45 AM	0	0	0	0	0	0	8	0	9	0	0	17	17	7	0	0	0	24	0	4	6	0	0	10	51
Total	0	0	0	0	0	0	8	0	9	0	0	17	17	7	0	0	0	24	0	4	6	0	0	10	51
7:00 AM	0	0	0	0	0	0	2	0	17	0	0	19	22	17	0	0	0	39	0	13	0	0	0	13	71
7:15 AM	0	0	0	0	0	0	2	0	11	0	0	13	25	18	0	0	0	43	0	13	3	0	0	16	72
7:30 AM	0	0	0	0	0	0	8	0	19	1	0	28	9	17	0	0	0	26	0	11	1	0	0	12	66
7:45 AM	0	0	0	0	0	0	2	0	14	0	0	16	26	22	0	0	0	48	0	9	5	0	0	14	78
Total	0	0	0	0	0	0	14	0	61	1	0	76	82	74	0	0	0	156	0	46	9	0	0	55	287
8:00 AM	0	0	0	0	0	0	5	0	17	0	0	22	18	12	0	0	0	30	0	5	6	0	0	11	63
8:15 AM	0	0	0	0	0	0	3	0	6	0	0	9	13	11	0	0	0	24	0	13	5	0	0	18	51
8:30 AM	0	0	0	0	0	0	2	0	9	0	0	11	9	9	0	0	0	18	0	8	2	0	0	10	39
Total	0	0	0	0	0	0	10	0	32	0	0	42	40	32	0	0	0	72	0	26	13	0	0	39	153
***BREAK***																									
4:00 PM	0	0	0	0	0	0	3	0	11	0	0	14	7	12	0	0	0	19	0	9	6	0	0	15	48
4:15 PM	0	0	0	0	0	0	4	0	5	0	0	9	8	9	0	0	0	17	0	10	2	0	0	12	38
4:30 PM	0	0	0	0	0	0	2	0	14	0	0	16	13	10	0	0	0	23	0	14	5	0	0	19	58
4:45 PM	0	0	0	0	0	0	2	0	13	0	0	15	10	7	0	0	0	17	0	8	5	0	0	13	45
Total	0	0	0	0	0	0	11	0	43	0	0	54	38	38	0	0	0	76	0	41	18	0	0	59	189
5:00 PM	0	0	0	0	0	0	4	0	22	0	0	26	11	6	0	0	0	17	0	12	2	0	0	14	57
5:15 PM	0	0	0	0	0	0	4	0	21	0	0	25	11	13	0	0	0	24	0	10	9	0	0	19	68
5:30 PM	0	0	0	0	0	0	2	0	25	0	0	27	9	8	0	0	0	17	0	1/	5	0	0	22	66
5:45 PM	0	0	0	0	0	0	5	0	14	0	0	19	12	12	0	0	0	24	0	20	4	0	0	24	67
lotai	0	0	0	0	U	U	15	0	82	0	0	97	43	39	0	0	U	82	0	59	20	0	0	79	258
Grand Total	0	0	0	0	0	0	58	0	227	1	0	286	220	190	0	0	0	410	0	176	66	0	0	242	938
Apprch %	0.0	0.0	0.0	0.0	0.0		20.3	0.0	79.4	0.3	0.0		53.7	46.3	0.0	0.0	0.0		0.0	72.7	27.3	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0	24.2	0.1	0.0	30.5	23.5	20.3	0.0	0.0	0.0	43.7	0.0	18.8	7.0	0.0	0.0	25.8	
Cars, PU, Vans	0	0	0	0	0	0	58	0	225		0	284	219	189	0	0		408	0	176	66		0	242	934
% Cars, PU, Vans	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	99.1	0.0	0.0	99.3	99.5	99.5	0.0	0.0	0.0	99.5	0.0	100.0	100.0	0.0	0.0	100.0	99.6
Heavy Trucks	0	0	0	0		0	0	0	2	0		2	1	1	0	0		2	0	0	0	0		0	4
%Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.7	0.5	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.4

Project ID: Location: City:	17-0941 Derrick Atlanta	9-002 Rd SW	& Kow	reta Rd				F	PEA	кнс	OUR	S						Day: Date:	Thurso 08/24/2	lay 2017	
AM		Deri No	rick Rd	SW nd			Derr Sou	ick Rd	SW			Ko Ea	weta R stboun	d d			K	oweta R estbour	d		
Start Time	Left	Thru	Rgt	Uturn A	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analys Peak Hour for En	sis from tire Inter	06:45 A section	M to 08 Begins	:45 AM at 07:00	AM																
7:00 AM	0	0	0	0	0	2	0	17	0	19	22	17	0	0	39	0	13	0	0	13	71
7:15 AM	0	0	0	0	0	2	0	11	0	13	25	18	0	0	43	0	13	3	0	16	72
7:30 AM	0	0	0	0	0	8	0	19	1	28	9	17	0	0	26	0	11	1	0	12	66
7:45 AM	0	0	0	0	0	2	0	14	0	16	26	22	0	0	48	0	9	5	0	14	78
Total Volume	0	0	0	0	0	14	0	61	1	76	82	74	0	0	156	0	46	9	0	55	287
% App. Total	0.0	0.0	0.0	0.0	0	18.4	0.0	80.3	1.3	100	52.6	47.4	0.0	0.0	100	0.0	83.6	16.4	0.0	100	
PHF										0.679					0.813					0.859	0.920
Cars, PU, Vans	0	0	0	0	0	14	0	61	1	76	81	74	0	0	155	0	46	9	0	55	286
% Cars, PU, Vans	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	100.0	100.0	98.8	100.0	0.0	0.0	99.4	0.0	100.0	100.0	0.0	100.0	99.7
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
%Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.3
PM																					

		Derr	ick Rd	SW			Derr	ick Rd	SW			Ko	weta R	d			Ko	oweta R	d		
		No	rthbou	nd			Soι	Ithbou	nd			Eas	stboun	d			We	estbour	nd		
Start Time	Left	Thru	Rgt	Uturn A	pp. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analys	sis from C	04:00 P	M to 06	:00 PM																	
Peak Hour for Ent	tire Inters	ection	Begins	at 05:00	PM																
5:00 PM	0	0	0	0	0	4	0	22	0	26	11	6	0	0	17	0	12	2	0	14	57
5:15 PM	0	0	0	0	0	4	0	21	0	25	11	13	0	0	24	0	10	9	0	19	68
5:30 PM	0	0	0	0	0	2	0	25	0	27	9	8	0	0	17	0	17	5	0	22	66
5:45 PM	0	0	0	0	0	5	0	14	0	19	12	12	0	0	24	0	20	4	0	24	67
Total Volume	0	0	0	0	0	15	0	82	0	97	43	39	0	0	82	0	59	20	0	79	258
% App. Total	0.0	0.0	0.0	0.0	0	15.5	0.0	84.5	0.0	100	52.4	47.6	0.0	0.0	100	0.0	74.7	25.3	0.0	100	
PHF										0.898					0.854					0.823	0.949
Cars, PU, Vans	0	0	0	0	0	15	0	82	0	97	43	39	0	0	82	0	59	20	0	79	258
% Cars, PU, Vans	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	100.0	0.0	100.0	100.0	0.0	100.0	100.0
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
%Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

## Appendix E Trip Generation Analysis

Ti M	rip Generation Analysis (9th /ac IV - Derrick Road DRI #23 City of Union City, GA	Ed.) 737						
Land Use	Intensity	Daily	AM Peak Hour			PM Peak Hour		
		Trips	Total	In	Out	Total	In	Out
Proposed Site Traffic								
150 Warehousing	550,000 s.f.	2,136	211	167	44	177	44	133
			1					1
Gross Trips		2,136	211	167	44	177	44	133
Truck Trips (per ITE Weighted Average Truck Trip Generati	on)	352	17	13	4	22	6	16
Mixed-Use Reductions		0				0	0	0
Alternative Mode Reductions		0	0	0	0	0	0	0
Adjusted Trips		352	17	13	4	22	6	16
Employee Trips		1 784	194	154	40	155	38	117
Mixed-Lise Reductions		0	101	101	10	0	0	0
Alternative Mode Reductions		0	0	0	0	0	0	0
Adjusted Trips		1,784	194	154	40	155	38	117
Mixed-Use Reductions - TOTAL		0	0	0	0	0	0	0
Alternative Mode Reductions - TOTAL		0	0	0	0	0	0	0
Pass-By Reductions - TOTAL		0	0	0	0	0	0	0
New Trips		2,136	211	167	44	177	44	133
Driveway Volumes		2,136	211	167	44	177	44	133

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## Appendix F Intersection Volume Worksheets

#### **INTERSECTION VOLUME DEVELOPMENT**

#### Intersection 1: Derrick Road @ Fulton Parkway AM PEAK HOUR

	Derrick Road Derrick Road		Fulton Parkway			Fulton Parkway						
	N	orthboun	d	<u>S</u>	outhboun	<u>d</u>	]	Eastbound	1	1	Vestboun	<u>d</u>
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	26	63	89	220	55	97	99	1,181	8	24	445	70
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	1	1	0	1	2	1	1	19	0	0	5	1
Heavy Vehicle %	4%	2%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor		0.90			0.90			0.90		0.90		
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	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
Currently Unoccupied Warehouse (Truck Trips)	0	0	0	3	0	6	21	4	0	0	1	12
Currently Unoccupied Warehouse (Car Trips)	0	7	0	6	2	12	45	0	0	0	2	22
2018 Background Traffic	27	71	91	233	58	117	167	1,209	8	24	457	105
2018 No Build Heavy Vehicle %	4%	2%	2%	2%	3%	6%	13%	2%	2%	2%	2%	12%
Project Trips (Future Development Only)												
Trip Distribution IN					0%				30%	70%		
Trip Distribution OUT	30%	0%	70%									
Truck Trips	1	0	3	0	0	0	0	0	4	9	0	0
Trip Distribution IN					10%				30%	50%		
Trip Distribution OUT	30%	10%	50%									
Car Trips	12	4	20	0	15	0	0	0	46	77	0	0
Total Project Trips	13	4	23	0	15	0	0	0	50	86	0	0
2018 Buildout Total	40	75	114	233	73	117	167	1,209	58	110	457	105
2018 Heavy Vehicle %	5%	2%	4%	3%	3%	7%	15%	2%	7%	9%	2%	13%

#### PM PEAK HOUR

	Derrick Road Derrick Road		Fulton Parkway			Fulton Parkway						
	N	Northboun	d	5	outhboun	d		Eastbound	1	1	Westboun	d
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	22	35	34	70	60	138	66	485	14	78	1,243	82
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	1	0	0	1	0	3	0	14	0	0	15	0
Heavy Vehicle %	5%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Peak Hour Factor		0.95			0.95			0.95			0.95	
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	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
Currently Unoccupied Warehouse (Truck Trips)	0	0	0	10	0	17	6	1	0	0	3	3
Currently Unoccupied Warehouse (Car Trips)	0	2	0	19	6	38	13	0	0	0	6	6
2018 Background Traffic	22	38	35	100	67	196	86	496	14	80	1,277	93
2018 Heavy Vehicle %	5%	2%	2%	11%	2%	10%	7%	3%	2%	2%	2%	3%
Project Trips (Future Development Only)												
Trip Distribution IN					0%				30%	70%		
Trip Distribution OUT	30%	0%	70%									
Truck Trips	5	0	11	0	0	0	0	0	2	4	0	0
Trip Distribution IN					10%				30%	50%		
Trip Distribution OUT	30%	10%	50%									
Car Trips	35	12	59	0	4	0	0	0	11	19	0	0
Total Project Trips	40	12	70	0	4	0	0	0	13	23	0	0
2018 Buildout Total	62	50	105	100	71	196	86	496	27	103	1,277	93
2018 Heavy Vehicle %	10%	2%	11%	12%	2%	11%	9%	3%	8%	5%	2%	5%

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#### **INTERSECTION VOLUME DEVELOPMENT**

#### Intersection 2: Derrick Road @ Koweta Road AM PEAK HOUR

	N/a Derrick Road		Koweta Road			Koweta Road						
	N	Northboun	d	5	outhboun	d	]	Eastbound	1	1	Westboun	d
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	0	0	0	14	0	61	82	74	0	0	46	9
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	0	0	0	0	0	1	0	0	0	0	0
Heavy Vehicle %	0%	0%	0%	2%	0%	2%	2%	2%	0%	0%	2%	2%
Peak Hour Factor					0.92			0.92			0.92	
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	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
Currently Unoccupied Warehouse (Truck Trips)	0	0	0	0	0	0	0	0	0	0	0	0
Currently Unoccupied Warehouse (Car Trips)	0	0	0	1	0	1	4	0	0	0	0	3
2018 Background Traffic	0	0	0	15	0	63	88	75	0	0	47	12
2018 No Build Heavy Vehicle %	0%	0%	0%	2%	0%	2%	2%	2%	0%	0%	2%	2%
Project Trips (Future Development Only)												
Trip Distribution IN							0%					0%
Trip Distribution OUT				0%		0%						
Truck Trips	0	0	0	0	0	0	0	0	0	0	0	0
Trip Distribution IN							5%					5%
Trip Distribution OUT				5%		5%						
Car Trips	0	0	0	2	0	2	8	0	0	0	0	8
Total Project Trips	0	0	0	2	0	2	8	0	0	0	0	8
2018 Buildout Total	0	0	0	17	0	65	96	75	0	0	47	20
2018 Heavy Vehicle %	0%	0%	0%	2%	0%	2%	2%	2%	0%	0%	2%	1%

#### PM PEAK HOUR

		N/a Derrick Road		Koweta Road			Koweta Road					
	Ν	Northboun	d	S	outhboun	d		Eastbound	1	1	Westboun	d
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	0	0	0	15	0	82	43	39	0	0	59	20
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle %	0%	0%	0%	2%	0%	2%	2%	2%	0%	0%	2%	2%
Peak Hour Factor					0.95			0.95			0.95	
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	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
Currently Unoccupied Warehouse (Truck Trips)	0	0	0	0	0	0	0	0	0	0	0	0
Currently Unoccupied Warehouse (Car Trips)	0	0	0	3	0	3	1	0	0	0	0	1
2018 Background Traffic	0	0	0	18	0	87	45	40	0	0	60	21
2018 Heavy Vehicle %	0%	0%	0%	2%	0%	2%	2%	2%	0%	0%	2%	2%
Project Trips (Future Development Only)												
Trip Distribution IN							0%					0%
Trip Distribution OUT				0%		0%						
Truck Trips	0	0	0	0	0	0	0	0	0	0	0	0
Trip Distribution IN							5%					5%
Trip Distribution OUT				5%		5%						
Car Trips	0	0	0	6	0	6	2	0	0	0	0	2
Total Project Trips	0	0	0	6	0	6	2	0	0	0	0	2
2018 Buildout Totol	0	0	0	24	0	03	47	40	0	0	60	23
2018 Heavy Vehicle %	0%	0%	0%	2%	0%	2%	2%	2%	0%	0%	2%	2%

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#### **INTERSECTION VOLUME DEVELOPMENT**

## Intersection 3: Derrick Road @ Site Driveway #1 AM PEAK HOUR

	Γ	Derrick Roa	d	I Derrick Road		Site Driveway			N/a			
	N	Northboun	d	S	outhboun	d	]	Eastbound	<u>1</u>	1	Westboun	d
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	0	178	0	0	87	0	0	0	0	0	0	0
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	2	0	0	2	0	0	0	0	0	0	0
Heavy Vehicle %	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor		0.92			0.92			0.92				
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	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
Currently Unoccupied Warehouse (Truck Trips)	0	0	0	0	0	0	0	0	0	0	0	0
Currently Unoccupied Warehouse (Car Trips)	0	7	0	0	2	0	0	0	0	0	0	0
2018 Background Traffic	0	189	0	0	91	0	0	0	0	0	0	0
2018 No Build Heavy Vehicle %	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Project Trips (Future Development Only)												
Trip Distribution IN	0%					100%						
Trip Distribution OUT							100%		0%			
Truck Trips	0	0	0	0	0	13	4	0	0	0	0	0
	100					0.001						
Trip Distribution IN	10%					90%	0.001		10.01			
Trip Distribution OUT				-			90%		10%	-	-	
Car Trips	15	0	0	0	0	139	36	0	4	0	0	0
	1.5	0	0	0	0	150	40	0		0	0	0
Total Project Trips	15	0	0	0	0	152	40	0	4	0	0	0
2018 Buildout Total	15	189	0	0	91	152	40	0	4	0	0	0
2018 Heavy Vehicle %	0%	2%	0%	0%	2%	9%	10%	0%	0%	0%	0%	0%

#### PM PEAK HOUR

	Derrick Road Derrick Road		Site Driveway			N/a						
	<u> </u>	Northboun	d	5	outhboun	d		Eastbound	1	1	Westboun	d
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	0	91	0	0	152	0	0	0	0	0	0	0
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	1	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle %	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor		0.92			0.92			0.92				
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	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
Currently Unoccupied Warehouse (Truck Trips)	0	0	0	0	0	0	0	0	0	0	0	0
Currently Unoccupied Warehouse (Car Trips)	0	2	0	0	6	0	0	0	0	0	0	0
2018 Background Traffic	0	95	0	0	161	0	0	0	0	0	0	0
2018 Heavy Vehicle %	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Project Trips (Future Development Only)												
Trip Distribution IN	0%					100%						
Trip Distribution OUT							100%		0%			
Truck Trips	0	0	0	0	0	6	16	0	0	0	0	0
Trip Distribution IN	10%					90%						
Trip Distribution OUT	1070					2070	90%		10%			
Car Trips	4	0	0	0	0	34	105	0	12	0	0	0
Total Project Trips	4	0	0	0	0	40	121	0	12	0	0	0
2019 Duildont Total	4	05	0	0	161	40	121	0	12	0	0	0
2018 Heavy Vehicle %	- +	2%	0%	0%	2%	15%	13%	0%	0%	0%	0%	0%

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## Appendix G Programmed Project Fact Sheets

S-208	Atlanta Region's Plan RTP (2	016) PROJECT FACT SHEET
Short Title	BUTNER ROAD INTERSECTION IMPROVEMENTS/CONGESTION REDUCTION AND TRAFFIC FLOW IMPROVEMENTS AT STONEWALL TELL ROAD	
GDOT Project No.	0007533	FS-208 Summe Ro
Federal ID No.	CSHPP-0007-00(533)	N SS
Status	Programmed	
Service Type	Roadway / Operations & Safety	Sources: Esri, DeLorme,
Sponsor	Fulton County	iPC, NRCAN, Esri Japan,
Jurisdiction	Fulton County (South)	METI, Esri China (Hong 🖏
Analysis Level	Exempt from Air Quality Analysis (40 CFR 93)	Copyright 2005 Aero Surveys of Georgia, Inc. Reproduced by permission of the copyright
Existing Thru Lane	N/A LCI	Network Year TBD
Planned Thru Lane	N/A Flex	Corridor Length 0.4 miles

#### **Detailed Description and Justification**

The proposed project includes two three-legged approach roundabouts located in the southwestern and northeastern comers of the existing intersection connected by a median. The roundabouts will have two inscribed circles of 110 feet with splitter islands on all of the approaches. Proposed typical section(s): Two 12-foot lanes on all approaches of the new roundabouts with splitter islands, 14-foot lanes on the roadway section between roundabouts, 24-foot curb & gutter, 2-foot stamped concrete area and 5-foot sidewalks. The sidewalk width on the westbound approach of Butner Road will be 12-foot to allow for a trail extension. A mountable curb will be provided in the median between the two roundabouts. The purpose of this project is to reduce the number and severity of accidents while improving traffic flow and overall operations of the intersection. The accident rate at the existing intersection of Stonewall Tell and Butner Road is .38 per million vehicles entering from 2006-2008. The increase in traffic volumes without the proposed improvements has the potential to result in an increase in accidents and/or injuries at the intersection. The project is being funded under the Roadway Operations and Safety Program, a regional program defined in PLAN 2040 to make smaller-scale improvements along existing roadways which are the most critical for cross-jurisdictional travel. With the exception of certain systemwide programs with broad benefits across a defined geographic area, eligibility under this program is limited to facilities on the Regional Strategic Transportation System, with additional priority given to those also identified as a Regional Thoroughfare. Stonewall Tell Road is included on the RSTS.

Pha	se Status & Funding	Status	FISCAL	TOTAL PHASE	BREAKDOWN	OF TOTAL PHAS	E COST BY FUN	DING SOURCE
Info	rmation		YEAR	COST	FEDERAL	STATE	BONDS	LOCAL/PRIVATE
PE	Federal Earmark	AUTH	2009	\$60,491	<del>\$26,885</del>	<del>\$0,000</del>	<del>\$0,000</del>	<del>\$33,606</del>
PE	Federal Earmark Funding	AUTH	2009	\$106,358	<del>\$85,087</del>	<del>\$0,000</del>	<del>\$0,000</del>	<del>\$21,271</del>
PE	STP - Statewide Flexible (GDOT)	AUTH	2009	\$177,403	<del>\$141,922</del>	<del>\$0,000</del>	<del>\$0,000</del>	<del>\$35,481</del>
ROW	Federal Earmark Funding	AUTH	2016	\$44,250	<del>\$35,400</del>	<del>\$0,000</del>	<del>\$0,000</del>	<del>\$8,850</del>
ROW	Local Jurisdiction/Municipality Funds	AUTH	2016	\$615,750	<del>\$0,000</del>	<del>\$0,000</del>	<del>\$0,000</del>	<del>\$615,750</del>
UTL	Federal Earmark Funding		2018	\$143,054	\$114,443	\$0,000	\$0,000	\$28,611
CST	Federal Earmark Funding		2018	\$218,043	\$174,434	\$0,000	\$0,000	\$43,609
CST	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)		2018	\$2,200,000	\$1,760,000	\$0,000	\$0,000	\$440,000
				\$3,565,349	\$2,338,171	\$0,000	\$0,000	\$1,227,178

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquistion UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

For additional information about this project, please call (404) 463-3100 or email transportation@atlantaregional.com.



Table 7: Regional Short Term Roadway Project Recommendations											
Project Number	Project Location	Category	Description	Jurisdiction	Total Cost Estimate						
R-20	Cascade Road at I-285	Interchange improvement	Provide additional ramp and arterial capacity in the vicin- ity of the interchange	Unincorporated Fulton County	\$16,463,260						
R-23c	SR 92 at South Fulton Parkway	Roadway operation	Interchange improvement; CFI	Union City	\$17,325,000						
R-24a	SR 138 from US 29 to Buffington Road	Roadway operation	Regular signal timing and maintenance program	Fairburn, Union City, Unincorporated Fulton County	\$77,000						
R-24b	Old National Highway from I-285 to Jonesboro Road	Roadway operation	Regular signal timing and maintenance program	College Park, Unincorporated Fulton County	\$99,000						
R-24d	Camp Creek Parkway from I-285 to Old Fairburn Road	Roadway operation	Regular signal timing and maintenance program	College Park, East Point, Unincorporated Fulton County	\$49,500						
R-25	Buffington Road over South Fulton Parkway	Bridge	Widen bridge to include 12' lanes and bike/ped facilities	College Park, Unincorporated Fulton County	\$1,626,240						
R-30	Camp Creek Parkway Safety Im- provements	Safety, geometric improvement	Install safety barriers at high crash locations along Camp Creek Parkway between Ful- ton Industrial Boulevard and Old Fairburn Road	Unincorporated Fulton County	\$1,000,000						
R-35	Old National Highway at Flat Shoals Road	Intersection operation	Safety study and improve- ments	Unincorporated Fulton County	\$1,000,000						
R-39	Cascade Road at Utoy Springs Road	Intersection operation	Safety study and improve- ments	Unincorporated Fulton County	\$1,000,000						
R-41	I-285 at Washington Road	Safety, geometic im- provement	Safety study and improve- ments	East Point	\$1,300,000						
R-77	Main Street from Connally Drive to Womack Avenue	Streetscape/ enhancement	Raised, landscaped median at currently striped out locations	East Point	\$877,250						
R-92	US 19/41 from Cleveland Avenue to I-75	Roadway operation	Designate I-75 and Cleve- land Avenue as US 19/41 and remove designation through downtown Hapeville	Hapeville	\$0						
R-105	US 29 at Thornton Avenue	Bike/ped	Pedestrian facilities	Palmetto	\$27,500						
R-106	US 29 between Thornton Avenue and Jackson Avenue	Bike/ped	Mid-block crossing with flashing pedestrian warning signal	Palmetto	\$25,300						
R-123	South Fulton Parkway at Cochran Mill Road	Intersection operation	Intersection improvements	Chattahoochee Hills	\$1,000,000						
R-147	Roosevelt Highway in Downtown Palmetto	Policy	Designate as US 29 Busi- ness and prevent truck traffic through downtown (must be linked to R-146)	Palmetto	\$4,388,252						



R-79	US 29 from West Campbellton Street to Dodd Street	Streetscape/ enhancement	Sidewalks, streetscapes, bike lanes, traffic calming, parking conversion, improved signage	Fairburn	\$594,000
R-80	US 29 from Dodd Street to SR 138	Streetscape/ enhancement	Sidewalks, streetscapes, bike lanes, bulbouts on Strickland Street, gateway and wayfinding signage at Estes Drive and SR 138	Fairburn	\$379,500
R-81	US 29 from public safety building to Smith Street	Streetscape/ enhancement	Sidewalks, streetscapes, bike lanes, includes landscaped median on the SW leg of the intersection with Senoia Road, gateway signage, wayfinding signage at Senoia Road	Fairburn	\$500,500
R-112	South Fulton Parkway at Stonewall Tell Road	Intersection operation	Add 200' left-turn lanes to northbound and southbound approach	Union City	\$580,800
R-132	Camp Creek Parkway at Fulton Industrial Boulevard	Intersection operation	Intersection improvements	Unincorporated Fulton County	\$1,000,000
R-205	Fulton Industrial Boule- vard from Campbellton Road to I-20	Intersection improvements	Increase turn radii for freight movements at select locations; repair and/or replace curbs; install signals at three locations (Westgate Drive, Riverside Drive, Westgate Parkway); intersection improvements at six locations (Camp Creek Parkway, Cascade Road, Bakers Ferry Road, Marvin Miller Drive, Fulton Industrial Circle, Shirley Drive); install cameras and fiber	Unincorporated Fulton County	\$5,315,300
R-206	I-20 at Fulton Industrial Boulevard	Interchange improvement	Improvements to interchange and arterials in vicinity of inter- change; aesthetic improvements	Unincorporated Fulton County	\$16,463,260

Regional mid-term bicycle projects are shown in Table 11 below. Map 5 includes the regional mid-term bicycle project recommendations.

	Table 11: Regional Mid Term Bicycle Project Recommendations												
Project Number	Project Location	Category	Description	Jurisdiction	Total Cost Estimate								
B-13	Roosevelt Highway- en- tire length	Bicycle	4' bike lanes striped on street	Palmetto, Union City, College Park, Unincorporated Fulton County	\$44,155,500								
B-14	Cedar Grove Road from South Fulton Parkway to Rivertown	Bicycle	4' bike lanes striped on street	Unincorporated Fulton County	\$4,873,500								
B-17	Senoia Road from West Broad Street To SR 74	Bicycle	4' bike lanes striped on street	Fairburn	\$3,033,500								



ASP-FS-223	SR 138/SR 92 from I-85 south to South Fulton Parkway	Roadway widening	Roadway widening	Fairburn, Union City, Unincor- porated Fulton County	\$79,000,000
ASP-FS-226	US 29 from SR 279 to South Fulton Parkway	Roadway widening	Roadway widening	College Park, Unincorporated Fulton County	\$27,000,000
ASP-FS-229	I-85 southbound from SR 74 to Collinsworth Road	Roadway widening	Collector distributor lanes	Fairburn	\$143,000,000
ASP-FS-230	SR 92 from South Ful- ton Parkway to SR 70	Roadway widening	Roadway widening	Unincorporated Fulton County	\$35,000,000
FS-003	SR 70 from SR 6 to	Roadway	Add one general purpose lane	Unincorporated	\$30,000,000
FS-200A	I-20 Washington Road from I-285 to Desert Drive	widening Roadway widening	in each direction Widen existing road to 4 lane undivided road, improve traffic signals on Washington Road, improve Hammarskjold Av- enue, Janice Drive, and Carmel Drive intersections, update pe- destrian sidewalks, bike paths, and street lighting	Fulton County East Point	\$8,400,000
FS-200B	Washington Road from SR 6 to Delowe Drive	Roadway widening	Add one general purpose lane in each direction	East Point, College Park	\$14,500,000
FS-200C	Washington Road from Delowe Drive to US 29	Roadway widening	Add one general purpose lane in each direction	East Point	\$5,800,000
FS-225	SR 70 from SR 166 to SR 6	Roadway widening	Widen from four to six lanes	Unincorporated Fulton County	\$36,600,000
R-1	Old National Highway from Flat Shoals to I-285	Study/planning	Widen from four to six lanes and add raised median	College Park, Unincorporated Fulton County	\$275,000
R-2	South Fulton Parkway from Stonewall Tell Road to I-285	Roadway widening	Widen from 2 to 4 lanes (4.0 miles)	College Park, Union City, Unincorporated Fulton County	\$52,262,320
R-3	South Fulton Parkway Grade Separation (2 locations)	Grade separation	Grade separation at Stonewall Tell Road and Mason Road; abandon intersection of South Fulton Parkway at Majestic Place	Union City	\$37,692,270
R-8	Flat Shoals Road at I-85	Interchange improvement	Provide an additional ramp and arterial capacity in vicinity of interchange	Union City, Unincorporated Fulton County	\$16,463,260
R-10	Gullatt Road between Roosevelt Highway and Collinsworth Road	Roadway operation	Roadway improvements including widening, shoulders, railroad grade separation at two locations to support new interchange	Fairburn, Unincorporated Fulton County	\$15,970,185
R-16	Feldwood Road from Roosevelt Highway to Flat Shoals Road	Roadway operation	Left and right turn lanes at select locations	Union City, Unincorporated Fulton County	\$9,392,779



R-23a Camp Creek Parkway at Roadway Intersect	
Burner Road operation	ion improvement Unincorporated \$1,680,704 Fulton County
R-23b Old National Highway Roadway Intersect at Bethsaida Road operation	ion improvement Unincorporated \$1,155,000 Fulton County
R-23d SR 92 at Dobson Road Roadway operation Intersect	ion improvement Fairburn \$1,155,00
R-31 Old Fairburn Road Roadway Left and widening select loo	right turn lanes at Unincorporated \$26,660,964 rations Fulton County
R-34South Fulton Parkway at Stonewall Tell RoadIntersection operationIntersect	ion improvements Union City \$1,000,000
R-45 Oakley Industrial Bou- levard Extension Extend O Gullatt I	Dakley IndustrialFairburn\$4,663,549d south to connect toRoad at Cleckler RoadImage: Cleckler Road
R-93 Weldon Road from US 29 to I-85 Roadway widening Widen f	rom two to four lanes Palmetto \$9,824,320
R-94 Campbellton Road Reliever -Phase I New connection New factors Road no	lity connecting Riv- rive to CampbelltonUnincorporated Fulton County\$4,024,647rth of Sandtown ParkFulton County
R-99 Campbellton Road at Intersection roundab Wallace Road operation	DutUnincorporated Fulton County\$1,514,920
R-102 Fulton Industrial Boule- Intersection Intersect vard at Cascade Road operation Intersect	ion improvements Unincorporated \$1,000,000 Fulton County
R-103 Cascade Road at Carlo Intersection Intersect Woods Drive Operation	ion improvements Unincorporated \$1,000,000 Fulton County
R-104 Cascade Road ATMS Roadway Install fi from Shanter Trail to Fulton Industrial Bou- levard	ergency preemption Unincorporated \$2,420,000 Fulton County
R-111 South Fulton Parkway Intersection at Mason Road/Hunter Road Intersection	ion improvements Union City \$1,000,000
R-113 South Fulton Parkway at Intersection Intersect Koweta/Stonewall Tell operation Connector	ion improvements Union City \$1,000,000
R-114 South Fulton Parkway at Grade separation Constru- Derrick Road Grade separation interchan	tt a tight diamond Unincorporated \$17,150,760 Fulton County
R-115 South Fulton Parkway at Intersection Intersect	ion improvements Union City \$1,000,000
R-116   South Fulton Parkway at Reserved Place   Intersection   Intersect	ion improvements Union City \$1,000,000
R-117 South Fulton Parkway at Grade separation Constru- SR 92 interchar	et a tight diamond Union City \$22,307,010
R-118 South Fulton Parkway at Intersection Intersect Town Center Access operation	ion improvements Union City \$1,000,000
R-119 South Fulton Parkway at Grade separation Constru- Cedar Grove Road Grade separation interchar	t a tight diamond Unincorporated \$20,074,010 Fulton County



## **Appendix H** Project Trip Data for Nearby Developments







