

## QC/QA Document Review Comment/Revision Sheet

**Environmental Section/Discipline: Air Quality**

### To be completed by the Consultant

<b>Project Name</b>	I-285 Ramps at CR 209/Riverside Drive	<b>ROW date</b>	FY 2014
<b>Proj. No.</b>	N/A	<b>P.I. No.</b>	0010925
<b>County</b>	Fulton	<b>LET date</b>	2/6/2015

<b>Lead NEPA for Project (consultant)</b>	ARCADIS
<b>Baseline Delivery Date</b>	June 2014
<b>Project is on schedule for baseline delivery (yes/no)</b>	Yes

<b>Document title</b>	Air Quality Impact Assessment	<b>Consultant Firm</b>	ARCADIS
<b>Version #</b>	2	<b># of Copies</b>	1
<b>Consultant Preparer Phone/Email</b>	770.384.6725/Reza.Taromi@arcadis-us.com		

	Name	Signature	Date
<b>Consultant preparer</b>	Reza Taromi, PE, PTOE	<i>Reza Taromi, PE</i>	5/14/14
<b>Consultant reviewer</b>	Jody Peace, PE	<i>Jody Peace, PE</i>	5/15/14

### To be completed by Environmental Services

<b>GDOT NEPA analyst</b>		<b>Received on:</b>	
<b>Specialist</b>		<b>Transmitted on:</b>	
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### Environmental Services Review and Evaluation

<b>Staff Review</b>	<b>Name</b>	Andrew CATT	<b>Comments attached?</b> Y / N	<b>Date</b>	6-5-14
<b>Comments for quality assessment</b>					
<i>Appvd.</i>					

<b>Manager Review</b>	<b>Name</b>		<b>Comments attached?</b> Y / N	<b>Date</b>	
<b>Comments for quality assessment</b>					

<b>Section Chief Review</b>	<b>Name</b>		<b>Comments attached?</b> Y / N	<b>Date</b>	
<b>Comments for quality assessment</b>					

### Approval/Transmittal/Return

<input type="checkbox"/> I returned this document to the consultant with requested revisions. <input type="radio"/> I provided a deadline of _____ to have a revised draft submitted.	<b>Staff Reviewer Initials</b>	_____
<input checked="" type="checkbox"/> This document was approved. <input type="radio"/> _____ additional copies were requested. <input type="radio"/> I transmitted this report to _____ on _____.	<b>Staff Reviewer Initials</b>	<i>A.c</i>

**Georgia Department of Transportation**

**Air Quality Impact Assessment**

I-285 Ramps at CR 209/Riverside Drive  
P.I. # 0010925

Fulton County, Georgia  
May 2014

**Air Quality Impact Assessment**

**I-285 Ramps at CR  
209/Riverside Drive  
P.I. # 0010925**

**Fulton County, Georgia**

**Prepared for:  
Georgia Department of Transportation**

**Prepared by:  
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**Date:  
May 2014**

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Keith Golden, P.E., Commissioner



DEPARTMENT OF TRANSPORTATION

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June 5, 2014

Mr. Rodney N. Barry, P.E.  
Division Administrator  
Federal Highway Administration  
Atlanta Federal Center  
61 Forsyth Street, S.W.  
Suite 17 T100  
Atlanta, Georgia 30303-3104

ATTN: Jennifer Giersch

Dear Mr. Barry:

Re: Fulton County, P.I. No. 0010925- Project I-285 Ramps at CR 209/Riverside Drive

Please find enclosed the Air Quality Impact Assessment. It is being sent to you for your information and files.

Should you need further information, please contact Andrew Clay at (404) 631-1597 or Amber Phillips at (404) 631-1117.

Sincerely,

A handwritten signature in blue ink that reads "Hiral Patel, P.E. / SMS".

Hiral Patel, P.E.  
State Environmental Administrator

HP/AC  
Enclosures

cc: GF

**EXECUTIVE SUMMARY**  
**PI NO.: 0010925, COUNTY: FULTON**  
**PROJECT NAME: I-285 RAMPS AT CR 209/RIVERSIDE DRIVE**  
**DATE: MAY 2014**

**Project Description:** The proposed project consists of safety improvements to the existing interchange of I-285 at Riverside Drive. The project would convert the two existing signalized intersections at each ramp terminal at Riverside Drive to single lane roundabouts. Each approach to the roundabout would be widened to two lanes with one lane entering the roundabout and the other serving as a right turn lane. The proposed project would require approximately 1,520 square feet of additional right-of-way. Pedestrian and bicycle accommodations will be provided along the corridor. The construction activity of the project is approximately 0.5 mile length.

**Ozone:** This project is identified in the Atlanta Regional Commission's Plan 2040 FY 2012-2017 TIP by reference number AR-118-2015.

**PM<sub>2.5</sub>:** This project is in an attainment area.

**CO Modeling Assumptions:** The project was evaluated for the potential to result in increased CO concentrations in the project area. Based on traffic volumes, LOS estimates and project type it has been determined that this project would not increase traffic congestion or increased idle emissions and CO concentrations

**MSAT:** The proposed project is classified as a project with no meaningful MSAT effects.

**Conclusion:** This project was evaluated for its consistency with state and federal air quality goals, including CO, Ozone, PM<sub>2.5</sub> and MSATs as part of this assessment. Results indicated that the project is consistent with the SIP for the attainment of clean air quality in Georgia and is in compliance with both state and federal air quality standards.

Prepared By: Reza Taromi, PhD, PE, PTOE

QC/QA: Jody Peace, PE

Reza Taromi 5/14/14  
Signature Date

Jody Peace 5/16/14  
Signature Date

Approved By: GDOT

Andrew Chai 6-5-2014  
Signature Date

**AIR ASSESSMENT  
FULTON COUNTY  
I-285 RAMPS AT CR 209/RIVERSIDE DRIVE  
PI No. 0010925  
MAY 2014**

***Introduction***

The 1990 Clean Air Act (CAA) amendments and guidelines, issued by the U.S. Environmental Protection Agency (EPA), set forth guidelines to be followed by agencies responsible for attainment of the National Ambient Air Quality Standards (NAAQS). The CAA section 176(c) requires that Federal transportation projects are consistent with state air quality goals, found in the State Implementation Plan (SIP). The process to ensure this consistency is called Transportation Conformity. Conformity to the SIP means that transportation activities will not cause new violations of the NAAQS, worsen existing violations of the standards, or delay timely attainment of the relevant standard. In complying with these guidelines the Georgia Department of Transportation (GDOT) has completed an analysis on the effects of the proposed project on air quality.

***What is the Proposed Project?***

The proposed project area (see Figure 1 on page 2) is located on Riverside Drive at the interchange with I-285 in Fulton County Georgia and is within the city limits of Sandy Springs.

The project would convert the two existing signalized intersections at each ramp terminal at Riverside Drive to single lane roundabouts. Each approach to the roundabout would be widened to two lanes with one lane entering the roundabout and the other serving as a right turn lane.

Air Quality Impact Assessment  
I-285 Ramps at  
CR 209/Riverside Drive  
Fulton County, P.I. # 0010925  
May 2014

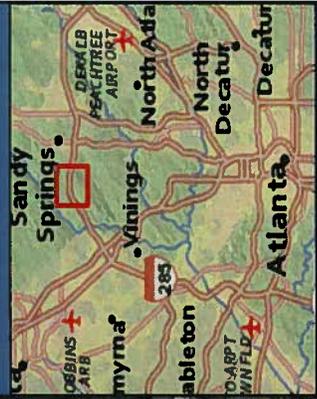


Figure 1  
Study Area Map

**Legend**

 Study Area Roadway



***What Criteria Pollutants Are Studied?***

The NAAQS have been established for air pollutants that have been identified by the EPA as being of concern nationwide. These air pollutants, referred to as criteria pollutants, are carbon monoxide (CO), lead, nitrogen dioxide, particulate matter (PM<sub>2.5</sub>), ozone (O<sub>3</sub>) and sulfur dioxide. The sources of these pollutants, effects on human health and the nation's welfare, and occurrence in the atmosphere vary considerably. In addition to the criteria air pollutants for which there are NAAQS, the EPA also regulates air toxics (MSATs). Due to their association with roadway transportation sources, O<sub>3</sub>, CO, PM<sub>2.5</sub>, and MSATs are typically reviewed for potential effects on nearby receptors with respect to roadway projects.

***Is this Project in an Ozone (O<sub>3</sub>) Non-Attainment Area?***

This project is in an area where the SIP contains transportation control measures. The CAA requires Transportation Plans and Transportation Improvement Programs (TIP) in areas not meeting the NAAQS to conform to the emissions budget of the SIP for air quality. The FY 2012-2017 TIP is the current adopted plan for the Atlanta area showing the region's highest transportation priorities. It was adopted by the Atlanta TMA Board on August 18, 2011 and was approved by US DOT on September 6, 2011.

This project is identified in the Atlanta Regional Commission's Plan 2040 FY 2012-2017 TIP by reference number AR-118-2015.

Inclusion in a conforming plan also serves as project level analysis for O<sub>3</sub>; no further analysis of O<sub>3</sub> emissions is warranted.

***How Will The Project Affect Carbon Monoxide (CO) Emissions?***

Georgia is in attainment for CO; however, CO is also a concern in areas where signalized intersections (due to idling vehicles) are operating at a Level-of-Service (LOS) D, E, or F in the project design year (20-year design horizon).

The LOS is a standard means of classifying traffic conditions associated with various traffic volume levels and traffic flow conditions. There are six levels of service at which a roadway can operate, represented by the letters "A" through "F". Each level is defined by a maximum value for the ratio of traffic volume (V) to facility capacity (C) as shown in Table 1 on page 4. The LOS for signalized intersections is determined by calculating the average control delay per vehicle for the intersection, i.e., the average amount of time it takes a vehicle to get through the intersection.

**Table 1: Level of Service**

Level of Service	Definition
A	volume is well below capacity and traffic is flowing freely
B	volume is steady, the presence of other vehicles begins to be noticeable
C	steady traffic flow, speeds and maneuverability are more closely controlled by traffic volumes
D	approaching an unsteady flow in which speed and maneuverability are severely restricted
E	traffic flow is reduced to a slow but relatively uniform speeds, and traffic volume is equal to or nearly equal to capacity and maneuverability is extremely difficult
F	volume greatly exceeds the capacity and lengthy delays occur

The project was evaluated for the potential to result in increased CO concentrations in the project area. Based on project type, it has been determined that this project would not increase traffic congestion or increased idle emissions and CO concentrations, therefore; the project is consistent with state and federal air quality goals for CO. This proposed project will convert the existing ramp terminal intersections into roundabouts which is not expected to increase the interchange volumes and will improve LOS. Furthermore, roundabouts are exempt from quantitative CO analysis.

***Is this project in a PM<sub>2.5</sub> Non-Attainment Area?***

Transportation conformity is required for federal transportation projects in areas that have been designated by the EPA as not meeting the NAAQS. These areas are called non-attainment areas if they currently do not meet air quality standards or maintenance areas if they have previously violated air quality standards, but currently meet them and have an approved maintenance plan. On January 5, 2005, The EPA designated 24 counties and three partial counties in Georgia as non-attainment areas for fine particular matter, called PM<sub>2.5</sub>. This designation became effective on April 5, 2005, 90 days after EPA's published action in the Federal Register. Transportation Conformity for the PM<sub>2.5</sub> standards applies as of April 5, 2006, after the one year grace period provided by the CAA. Metropolitan PM<sub>2.5</sub> non-attainment areas are now required to have a TIP and long range transportation plan (LRTP) that conforms to the PM<sub>2.5</sub> standard.

This project has been evaluated by an interagency group consisting of Federal Highway Administration (FHWA), EPA, Georgia Department of Natural Resources Environmental Protection Division (GA EPD) and the MPO and they agreed that these projects do NOT appear to be "Projects of Concern" per the Transportation Conformity Rule and thus meet the statutory and regulatory requirements for PM<sub>2.5</sub>

hotspots without a qualitative analysis on April 9, 2014. Documentation and correspondence are included in Attachment 1.

### ***How Does the Proposed Project Affect Mobile Source Air Toxics (MSAT)?***

Mobile Source Air Toxics (MSAT) assessments are required statewide for most federal transportation projects. Based on the example projects defined in the FHWA guidance “Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents” dated December 6, 2012, the I-285 Ramps at CR 209/Riverside Drive would be classified as a project with *no meaningful MSAT effects*. In addition to the criteria air pollutants that must meet the NAAQS, EPA also regulates air toxics. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., airplanes), area sources (e.g., dry cleaners) and stationary sources (e.g., factories or refineries).

### **Background**

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the U.S. Environmental Protection Agency (EPA) regulate 188 air toxics, also known as hazardous air pollutants. The EPA has assessed this expansive list in their latest rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007), and identified a group of 93 compounds emitted from mobile sources that are listed in their Integrated Risk Information System (IRIS) (<http://www.epa.gov/iris/>). In addition, EPA identified seven compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers from their 1999 National Air Toxics Assessment (NATA) (<http://www.epa.gov/ttn/atw/nata1999/>). These are acrolein, benzene, 1,3-butadiene, diesel particulate matter plus diesel exhaust organic gases (diesel PM), formaldehyde, naphthalene, and polycyclic organic matter. While FHWA considers these the priority mobile source air toxics, the list is subject to change and may be adjusted in consideration of future EPA rules. The 2007 EPA rule mentioned above requires controls that will dramatically decrease MSAT emissions through cleaner fuels and cleaner engines.

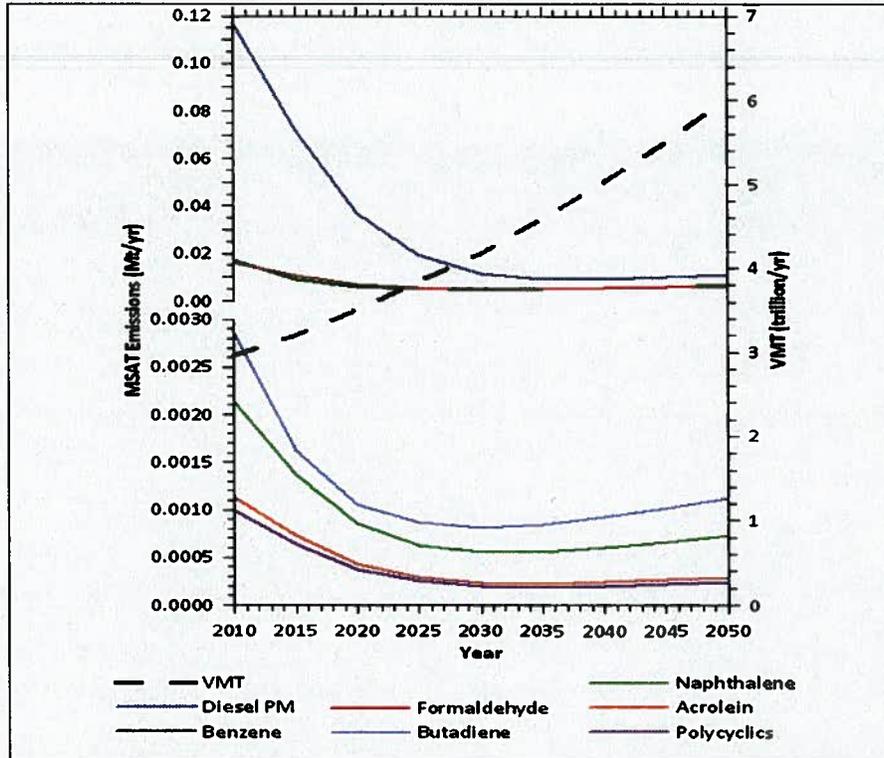
### **Motor Vehicle Emissions Simulator (MOVES)**

According to EPA, MOVES improves upon the previous MOBILE model in several key aspects: MOVES is based on a vast amount of in-use vehicle data collected and analyzed since the latest release of MOBILE, including millions of emissions measurements from light-duty vehicles. Analysis of this data enhanced EPA's understanding of how mobile sources contribute to emissions inventories and the relative effectiveness of various control strategies. In addition, MOVES accounts for the significant effects that vehicle speed and temperature have on PM emissions estimates, whereas MOBILE did not. MOVES2010b includes all air toxic pollutants in NATA that are emitted by mobile sources. EPA has incorporated more recent data into MOVES2010b to update and enhance the quality of MSAT emission estimates. These data reflect advanced emission control technology and modern fuels, plus additional data for older technology vehicles.

Based on an FHWA analysis using EPA's MOVES2010b model, as shown in Figure 2 on page 6, even if vehicle-miles traveled (VMT) increases by 102 percent as assumed from 2010 to 2050, a combined

reduction of 83 percent in the total annual emissions for the priority MSAT is projected for the same time period.

**Figure 2: National MSAT Emission Trends 2010 - 2050  
for Vehicles Operating on Roadways Using EPA's MOVES2010b Model**



Note: Trends for specific locations may be different, depending on locally derived information representing vehicle-miles traveled, vehicle speeds, vehicle mix, fuels, emission control programs, meteorology, and other factors  
Source: EPA MOVES2010b model runs conducted during May - June 2012 by FHWA.

The implications of MOVES on MSAT emissions estimates compared to MOBILE are

- Lower estimates of total MSAT emissions
- Significantly lower benzene emissions
- Significantly higher diesel PM emissions, especially for lower speeds

Consequently, diesel PM is projected to be the dominant component of the emissions total.

Air toxics analysis is a continuing area of research. While much work has been done to assess the overall health risk of air toxics, many questions remain unanswered. In particular, the tools and techniques for assessing project-specific health outcomes as a result of lifetime MSAT exposure remain limited. These

limitations impede the ability to evaluate how potential public health risks posed by MSAT exposure should be factored into project-level decision-making within the context of NEPA.

Nonetheless, air toxics concerns continue to be raised on highway projects during the NEPA process. Even as the science emerges, we are duly expected by the public and other agencies to address MSAT impacts in our environmental documents. The FHWA, EPA, the Health Effects Institute, and others have funded and conducted research studies to try to more clearly define potential risks from MSAT emissions associated with highway projects. The FHWA will continue to monitor the developing research in this field.

#### **Qualitative MSAT Assessment**

For each alternative in this document, the amount of MSAT emitted would be proportional to the vehicle miles traveled, or VMT, assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for the Build Alternative is the same as the No-Build alternative, because there is no additional capacity increase in the transportation network. See Table 2: VMT on page 8. This increase in VMT would lead to higher MSAT emissions for the preferred action alternative along the highway corridor, along with a corresponding decrease in MSAT emissions along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds; according to EPA's MOVES2010b model, emissions of all of the priority MSAT decrease as speed increases. The construction activity of the project is approximately 0.5 mile length however the modeling length of the project consist of approximately 1.47 mile.

**Table 2: VMT**

Roadway	Roadway Length (mi)	ADT/VMT	Existing 2012	No-Build 2035	Build 2035
Riverside Drive/CR 209 South	0.10	ADT	5,890	6,610	6,610
		VMT*	589	661	661
EB Ramp- WB Ramp	0.09	ADT	12,565	14,095	14,095
		VMT*	1,131	1,269	1,269
Riverside Drive/CR 209 North	0.19	ADT	19,240	21,580	21,580
		VMT*	3,656	4,100	4,100
EB Off-Ramp	0.37	ADT	6,485	7,275	7,275
		VMT*	2,399	2,692	2,692
EB On-Ramp	0.28	ADT	4,940	5,540	5,540
		VMT*	1,383	1,551	1,551
WB Off-Ramp	0.19	ADT	4,940	5,540	5,540
		VMT*	939	1,053	1,053
WB On-Ramp	0.25	ADT	6,485	7,275	7,275
		VMT*	1,621	1,819	1,819

\*VMT is calculated by multiplying the roadway length by the total daily traffic

Because the estimated VMT under each of the Alternatives are the same, it is expected there would be no appreciable difference in overall MSAT emissions among the various alternatives. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by over 80 percent between 2010 and 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases. Volume diagrams are included in Attachment 2.

**Incomplete or Unavailable Information for Project-Specific MSAT Health Impacts Analysis**

In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced

into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

The U.S. Environmental Protection Agency (EPA) is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the Clean Air Act and its amendments and have specific statutory obligations with respect to hazardous air pollutants and MSAT. The EPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. They maintain the Integrated Risk Information System (IRIS), which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects" (EPA, <http://www.epa.gov/iris/>). Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). Two HEI studies are summarized in Appendix D of FHWA's Interim Guidance Update on Mobile source Air Toxic Analysis in NEPA Documents. Among the adverse health effects linked to MSAT compounds at high exposures are; cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI, <http://pubs.healtheffects.org/view.php?id=282>) or in the future as vehicle emissions substantially decrease (HEI, <http://pubs.healtheffects.org/view.php?id=306>).

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts - each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70 year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame, since such information is unavailable.

It is particularly difficult to reliably forecast 70-year lifetime MSAT concentrations and exposure near roadways; to determine the portion of time that people are actually exposed at a specific location; and to establish the extent attributable to a proposed action, especially given that some of the information needed is unavailable.

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by HEI (<http://pubs.healtheffects.org/view.php?id=282>). As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel PM. The EPA (<http://www.epa.gov/risk/basicinformation.htm#g>) and the HEI (<http://pubs.healtheffects.org/getfile.php?u=395>) have not established a basis for quantitative risk assessment of diesel PM in ambient settings.

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the EPA as provided by the Clean Air Act to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires EPA to determine an "acceptable" level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld EPA's approach to addressing risk in its two step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than deemed acceptable.

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

#### ***How Does the Construction of this Project Affect Air Quality?***

All phases of construction operations would temporarily contribute to air pollution. Particulates would increase slightly in the corridor as dust from construction collects in the air surrounding the project. The construction equipment would also produce slight amounts of exhaust emissions. The Rules and Regulations for Air Quality Control outlined in Chapter 391-3-1, Rules of GA EPD, would be followed during the construction of the project. These include covering earth-moving trucks to keep dust levels down, watering haul roads, and refraining from open burning, except as may be permitted by local regulations.

The EPA has listed a number of approved diesel retrofit technologies; many of these can be deployed as emissions mitigation measures for equipment used in construction. This listing can be found at: <http://www.epa.gov/cleandiesel/technologies/retrofits.htm>

#### ***What are the Conclusions Reached Based on the Air Assessment?***

This project was evaluated for its consistency with state and federal air quality goals, including CO, Ozone, PM<sub>2.5</sub> and MSATs as part of this assessment. Results indicated that the project is consistent with the SIP for the attainment of clean air quality in Georgia and is in compliance with both state and federal air quality standards.



**Attachment 1**

**PM2.5 Letter of Determination**

## Taromi, Reza

---

**From:** Peace, Jody  
**Sent:** Wednesday, April 09, 2014 2:24 PM  
**To:** Taromi, Reza  
**Subject:** FW: PM Determinations (5), Atlanta Nonattainment Area  
**Attachments:** PM2.5 LOD - 0010925.pdf

Jody Peace, PE | Traffic Modeling Group Manager | [Jody.Peace@arcadis-us.com](mailto:Jody.Peace@arcadis-us.com)  
T: 770.384.6621 | M: 770.547.4343

Licensed Engineer in Georgia and Tennessee

Please consider the environment before printing this e-mail

---

**From:** Clay, Andrew [<mailto:anclay@dot.ga.gov>]  
**Sent:** Wednesday, April 09, 2014 2:14 PM  
**To:** Peace, Jody  
**Subject:** FW: PM Determinations (5), Atlanta Nonattainment Area

FYI

---

**From:** Smith, Dianna [<mailto:Smith.Dianna@epa.gov>]  
**Sent:** Wednesday, April 09, 2014 2:00 PM  
**To:** [Jennifer.Giersch@dot.gov](mailto:Jennifer.Giersch@dot.gov); [rgoodwin@grta.org](mailto:rgoodwin@grta.org); [KKim@atlantaregional.com](mailto:KKim@atlantaregional.com); Somerville, Amanetta; [dhaynes@atlantaregional.com](mailto:dhaynes@atlantaregional.com); [ddonofrio@atlantaregional.com](mailto:ddonofrio@atlantaregional.com); Benjamin, Lynorae; [james\\_kelly@dnr.state.ga.us](mailto:james_kelly@dnr.state.ga.us); [JOrr@atlantaregional.com](mailto:JOrr@atlantaregional.com); [svamala@hallcounty.org](mailto:svamala@hallcounty.org); [Keith.Melton@dot.gov](mailto:Keith.Melton@dot.gov); [jbarrett@atlantaregional.com](mailto:jbarrett@atlantaregional.com)  
**Cc:** Heath, Andrew; Hester, Michael; Crane, Jason; Jackson, Kelvin; Shakshuki, Soli; Phillips, Amber; [Katy.Allen@dot.gov](mailto:Katy.Allen@dot.gov); [Chetna.Dixon@dot.gov](mailto:Chetna.Dixon@dot.gov); Clay, Andrew; Smith, Dianna  
**Subject:** RE: PM Determinations (5), Atlanta Nonattainment Area

Hello Jennifer,

Thanks for sending this for our review. We have completed our review and agree that these project(s) do NOT appear to be a "Project of Concern" per the Transportation Conformity Rule, and thus meets the statutory and regulatory requirements for PM 2.5 hotspots without a qualitative analysis.

*Dianna B. Smith*

Environmental Scientist

Regional Transportation Conformity Contact

Air Quality Modeling and Transportation Section

Phone: (404) 562-9207 Fax: (404) 562-9019

e-mail [smith.dianna@epa.gov](mailto:smith.dianna@epa.gov)

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**From:** [Jennifer.Giersch@dot.gov](mailto:Jennifer.Giersch@dot.gov) [<mailto:Jennifer.Giersch@dot.gov>]  
**Sent:** Wednesday, March 26, 2014 2:07 PM  
**To:** Smith, Dianna; [rgoodwin@grta.org](mailto:rgoodwin@grta.org); [KKim@atlantaregional.com](mailto:KKim@atlantaregional.com); Somerville, Amanetta;

[dhaynes@atlantaregional.com](mailto:dhaynes@atlantaregional.com); [ddonofrio@atlantaregional.com](mailto:ddonofrio@atlantaregional.com); Benjamin, Lynorae; [james\\_kelly@dnr.state.ga.us](mailto:james_kelly@dnr.state.ga.us); [JOrr@atlantaregional.com](mailto:JOrr@atlantaregional.com); [syamala@hallcounty.org](mailto:syamala@hallcounty.org); [Keith.Melton@dot.gov](mailto:Keith.Melton@dot.gov); [ibarrett@atlantaregional.com](mailto:ibarrett@atlantaregional.com)  
**Cc:** [ah Heath@dot.ga.gov](mailto:ah Heath@dot.ga.gov); [mhester@dot.ga.gov](mailto:mhester@dot.ga.gov); [jcrane@dot.ga.gov](mailto:jcrane@dot.ga.gov); [kjackson@dot.ga.gov](mailto:kjackson@dot.ga.gov); [sshakshuki@dot.ga.gov](mailto:sshakshuki@dot.ga.gov); [aphillips@dot.ga.gov](mailto:aphillips@dot.ga.gov); [Katv.Allen@dot.gov](mailto:Katv.Allen@dot.gov); [Chetna.Dixon@dot.gov](mailto:Chetna.Dixon@dot.gov); [anclay@dot.ga.gov](mailto:anclay@dot.ga.gov)  
**Subject:** PM Determinations (5), Atlanta Nonattainment Area

Hello Interagency Group,

Please see the attached PM 2.5 Determination sheets for 5 projects in the Atlanta Nonattainment Area. FHWA has determined that the projects are NOT of air quality concern and is requesting consensus from the Interagency consultation group.

Please review and provide comments back by **COB 4/9/14**.

If no comments are received from your agency, consensus with this determination will be assumed. Thanks in advance for responding quickly.

Jennifer  
Giersch

Environmental Specialist

Federal Highway Administration

61 Forsyth Street, SW

Suite 17T100

Atlanta, GA 30303

Phone: 404-562-3653

Fax: 404-562-3703

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Georgia DOT commits \$7 million per year to an Off-System Safety Improvement Program designed to reduce fatalities and serious injuries on rural roads owned and maintained by local governments throughout Georgia. Thus far in FY2014, GDOT has administered approximately \$6.5 million of federal funds for local assistance in 78 counties. Visit us at <http://www.dot.ga.gov> (Local Government link) or follow us on <http://www.facebook.com/GeorgiaDOT> and <http://twitter.com/gadepoftrans>.

## **Determination of Project Categorization for PM2.5 Hotspot Requirements for Fulton County**

**Project Name:** I-285 Ramps at CR 209/Riverside Drive

**Project Number:** P.I. # 0010925

**Location:** Fulton County

**Document Type:** Categorical Exclusion (CE)

**Project Status:** CE In Progress

**FHWA Contact:** Jennifer Giersch

**GDOT NEPA Planner:** Paul Alimia

### **Project Description:**

The proposed project area (see Figure 1) is located on Riverside Drive at the interchange with I-285 in Fulton County Georgia and is within the city limits of Sandy Springs. The current roadway configuration of Riverside Drive consists of one, twelve foot wide lane in each direction, a ten foot wide grassed outside shoulder on each side, and traffic signals at the I-285 on and off ramp termini. There are no left turn lanes at the intersections with the I-285 entrance ramps. The existing bridge consists of one, twelve foot wide lane in each direction, one northbound and one southbound. The eastbound and westbound I-285 off ramps each consists of a single, sixteen foot lane. There are no existing sidewalks approaching the bridge, however there are existing five foot wide sidewalks on the bridge itself (both sides). The existing right-of-way along Riverside Drive varies from 50 to 100 feet.

The proposed project consists of safety improvements to the existing interchange of I-285 at Riverside Drive. The project would convert the two existing signalized intersections at each ramp terminal at Riverside Drive to single lane roundabouts. Each approach to the roundabout would be widened to two lanes with one lane entering the roundabout and the other serving as a right turn lane. The outside shoulders would remain 10 feet. Construction activity on Riverside Drive would extend approximately 450 feet to the north from the west bound on ramp to 285 and approximately 325 feet to the south from the east bound exit ramp. The proposed project would require approximately 1520 square feet of additional right-of-way. A five foot wide sidewalk would be added to both sides of the roadway along Riverside Driveway within the limits of the project. The project is approximately 0.5 mile length. The project would also include routine rehabilitation of the existing bridge. This work includes replacement of the joints at Bent 2 and Abutments 1 and 5. All construction joints will be resealed and the bridge deck would be sealed with a two-part polymer overlay. Concrete spalling would be repaired on Bents 3 and 4, and Abutment 5.

## Determination of Project Categorization for PM2.5 Hotspot Requirements for Fulton County



Figure 1: Study Area Map

*Is this project in a conforming Plan/TIP?* Yes, this project is in the approved FY 2012-2017 Transportation Improvement Program (TIP). The project is being constructed using the GDOT Surface Transportation Program (STP) safety funding under AR-118-2015.

*Is the project on a new highway that has a significant number of diesel vehicles (such as a facility with greater than 125,000 average daily traffic (ADT) and 8% or more of such ADT is diesel truck traffic) or an expanded highway with a significant increase in the number of diesel vehicles?* The corridor does contain 8 percent heavy vehicles however the ADT is expected to be less than 125,000 vehicles per day (vpd). ADT volumes are not expected to increase under build conditions since this is not a capacity update project. However an annual growth rate of 0.5 percent is expected to occur in the study area. The increased traffic volumes would still be less than 125,000 vpd in the design year. Volumes and truck percentages are shown in Table 1.

**Determination of Project Categorization for PM2.5 Hotspot Requirements for Fulton County**

**Table 1: Traffic Volumes in the Project Area**

<b>Riverside Drive North of I-285</b>	<b>Existing (2012) Year</b>	<b>Open Year (2015) No- Build</b>	<b>Open Year (2015) Build</b>	<b>Design Year (2035) No- Build</b>	<b>Design Year (2035) Build</b>
ADT (Vehicles per day)	19,240	19,530	19,530	21,580	21,580
Trucks per day	1,539	1,562	1,562	1,726	1,726
Percent Trucks (rounded)	8%	8%	8%	8%	8%
<b>Riverside Drive South of I-285</b>	<b>Existing (2012) Year</b>	<b>Open Year (2015) No- Build</b>	<b>Open Year (2015) Build</b>	<b>Design Year (2035) No- Build</b>	<b>Design Year (2035) Build</b>
ADT (Vehicles per day)	5,890	5,980	5,980	6,610	6,610
Trucks per day	471	478	478	529	529
Percent Trucks (rounded)	8%	8%	8%	8%	8%

*Does the project construct new exit ramps or other highway facility improvements that connect a highway or expressway to a major freight, bus, or intermodal terminal?* No. The project does not construct a new facility nor does it connect to a major freight, bus, or intermodal facility.

*Does the project expand an existing highway or other facility that affects a congested intersection (Operates at LOS D, E, or F) that has a significant increase in the number of diesel trucks?* No. The proposed project will not expand an existing highway. Additionally, the project will improve operations at congested intersections which will decrease delays and queuing along the corridor. Finally, it does not increase the number of diesel trucks.

*Does the highway project involve a significant increase in the number of diesel transit buses and/or diesel trucks?* No. ADT volumes are not expected to increase under build conditions in the study area and truck volumes would not increase.

Based on the above, a qualitative PM2.5 hotspot analysis is not required for this project since it is NOT a project of local air quality concern under 40 CFR 93.123(b)(1). The Clean Air Act and 40CFR 93.116 requirements were met without a hotspot analysis since this project has been found not to be of air quality concern under 40CFR 93.123(b)(1). Therefore, the project meets statutory and regulatory transportation conformity requirements without a hot-spot analysis.



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**Attachment 2**

**Volume Diagrams**

# Department of Transportation State of Georgia

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## INTERDEPARTMENT CORRESPONDENCE

**FILE** Fulton County  
P.I. # 0010925

**OFFICE** Planning

**DATE** November 14, 2013

**FROM** Cynthia L. VanDyke, State Transportation Planning Administrator

**TO** Darryl D. VanMeter, State Innovative Program Delivery Engineer  
**Attention:** Marlo Clowers, P.E.

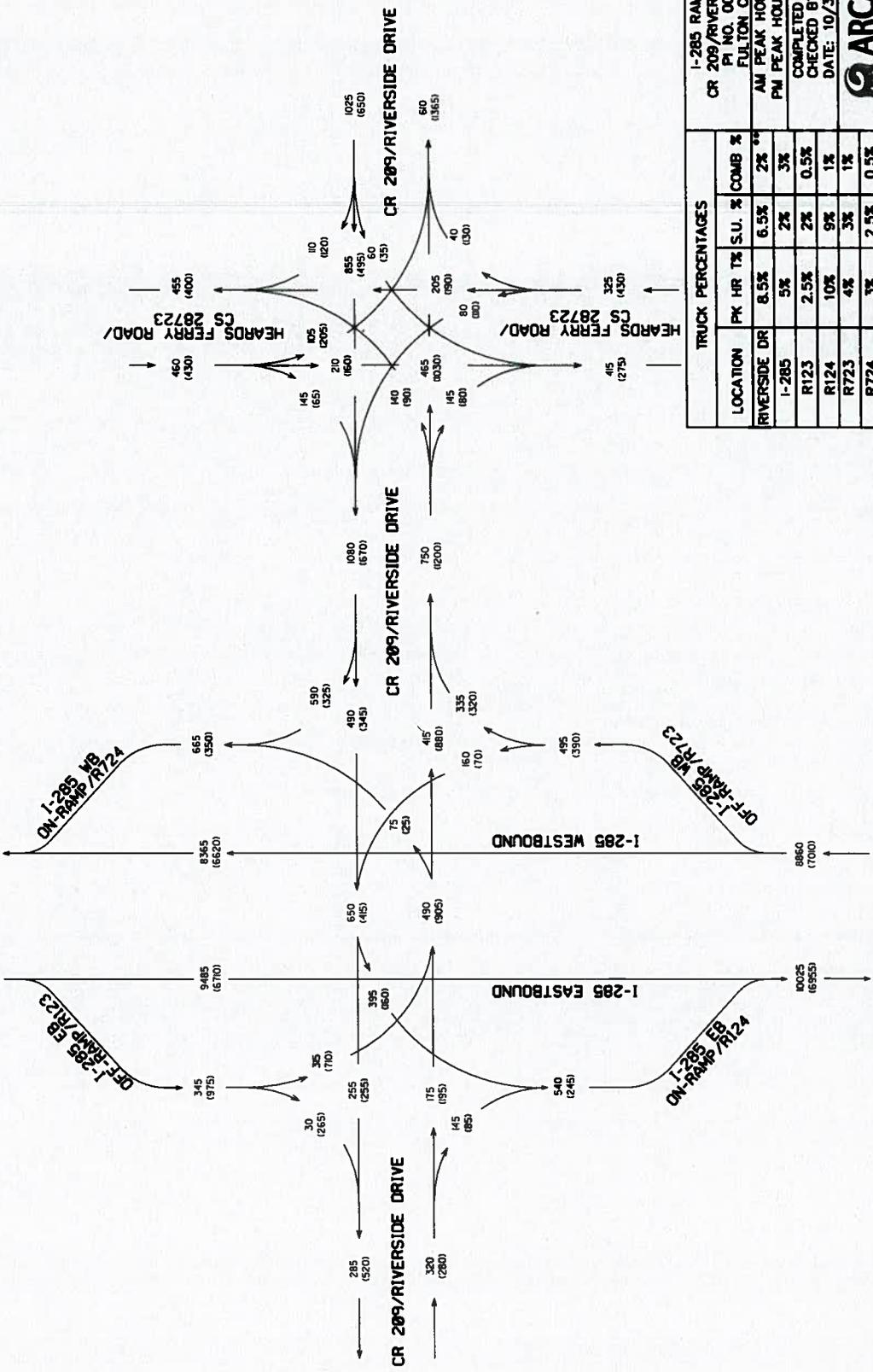
**SUBJECT** Design Traffic Review for I-285 RAMPS @ CR 209/RIVERSIDE DRIVE.

We have reviewed the consultant's Design Traffic data for the above project. The Design Traffic is approved.

If you have any questions concerning this information, please contact Rhonda Niles at (404) 631-1924.

CLV/RFN

EXISTING (2012) DHV



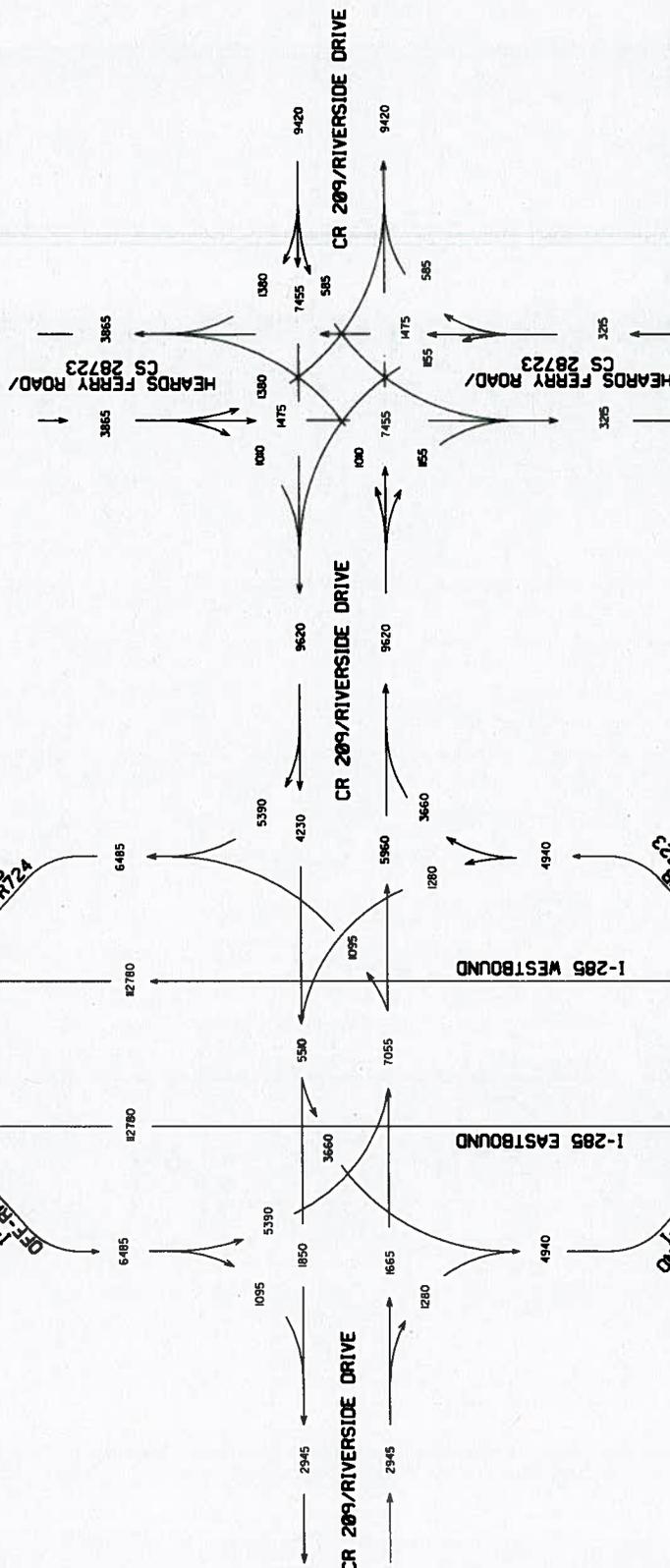
TRUCK PERCENTAGES			
LOCATION	PK HR	% S.U.	% COMB %
RIVERSIDE DR	8.5%	6.5%	2%
I-285	5%	2%	3%
R123	2.5%	2%	0.5%
R124	10%	9%	1%
R723	4%	3%	1%
R724	3%	2.5%	0.5%

\*\* LARGE TRUCKS PROHIBITED

I-285 RAMPS AT  
 CR 209/RIVERSIDE DRIVE  
 PI NO. 0010925  
 FULTON COUNTY  
 AM PEAK HOUR = 000  
 PM PEAK HOUR = (000)  
 COMPLETED BY: KC  
 CHECKED BY: SR  
 DATE: 10/31/2013



EXISTING (2012) ADT



TRUCK PERCENTAGES			
LOCATION	24-HOUR	% S.U.	% COMB
RIVERSIDE DR	8%	7%	1%
I-285	7%	2%	5%
R123	2%	2%	0%
R124	10.5%	9.5%	1%
R723	4%	3%	1%
R724	3.5%	3%	0.5%

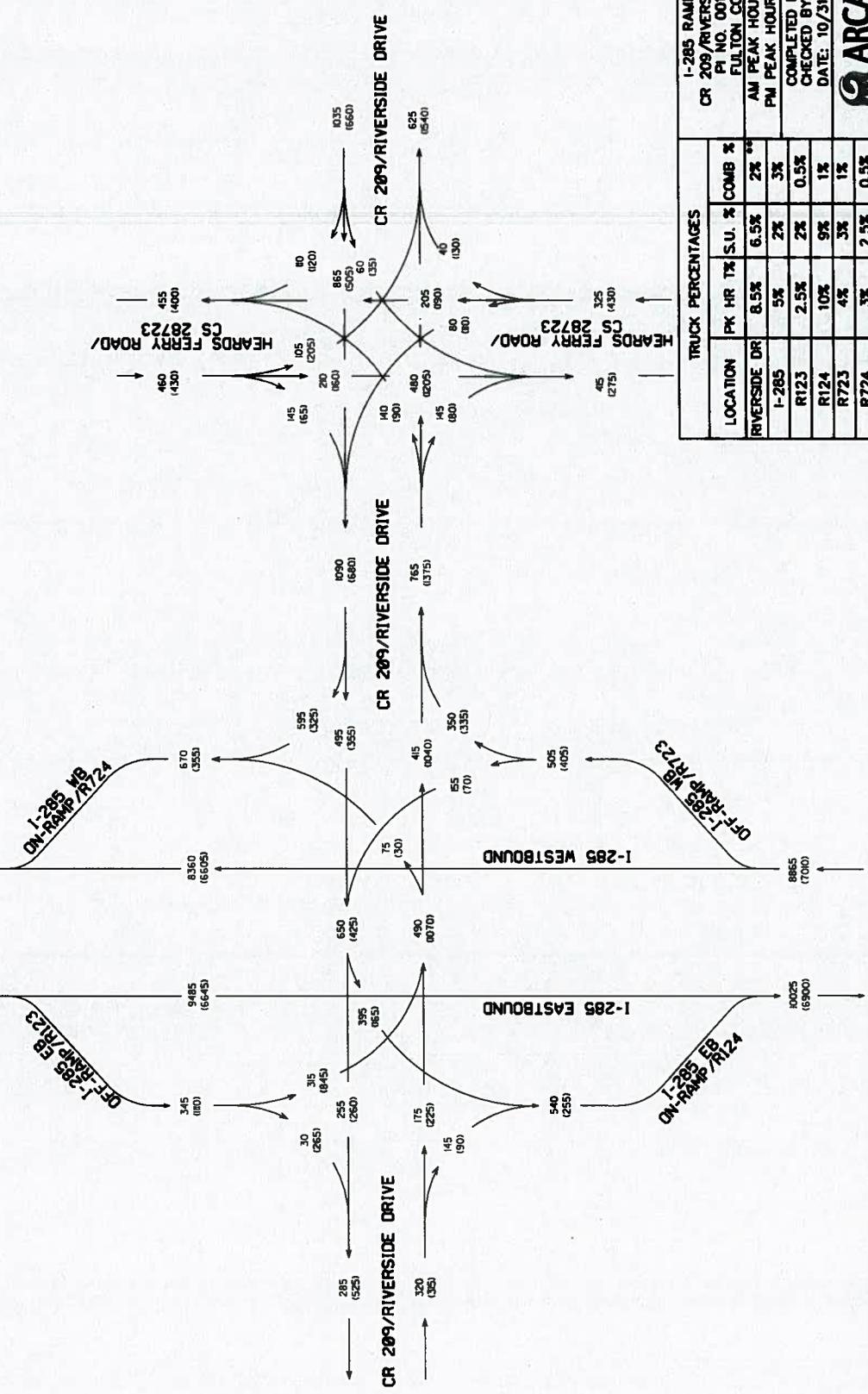
•• LARGE TRUCKS PROHIBITED

1-285 RAMPS AT  
CR 209/RIVERSIDE DRIVE  
PI NO. 0010925  
FULTON COUNTY  
AVERAGE DAILY TRAFFIC  
(ADT) = 000

COMPLETED BY: KC  
CHECKED BY: SR  
DATE: 10/31/2013

**ARCADIS**  
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EXISTING (2012) DEMAND DHV



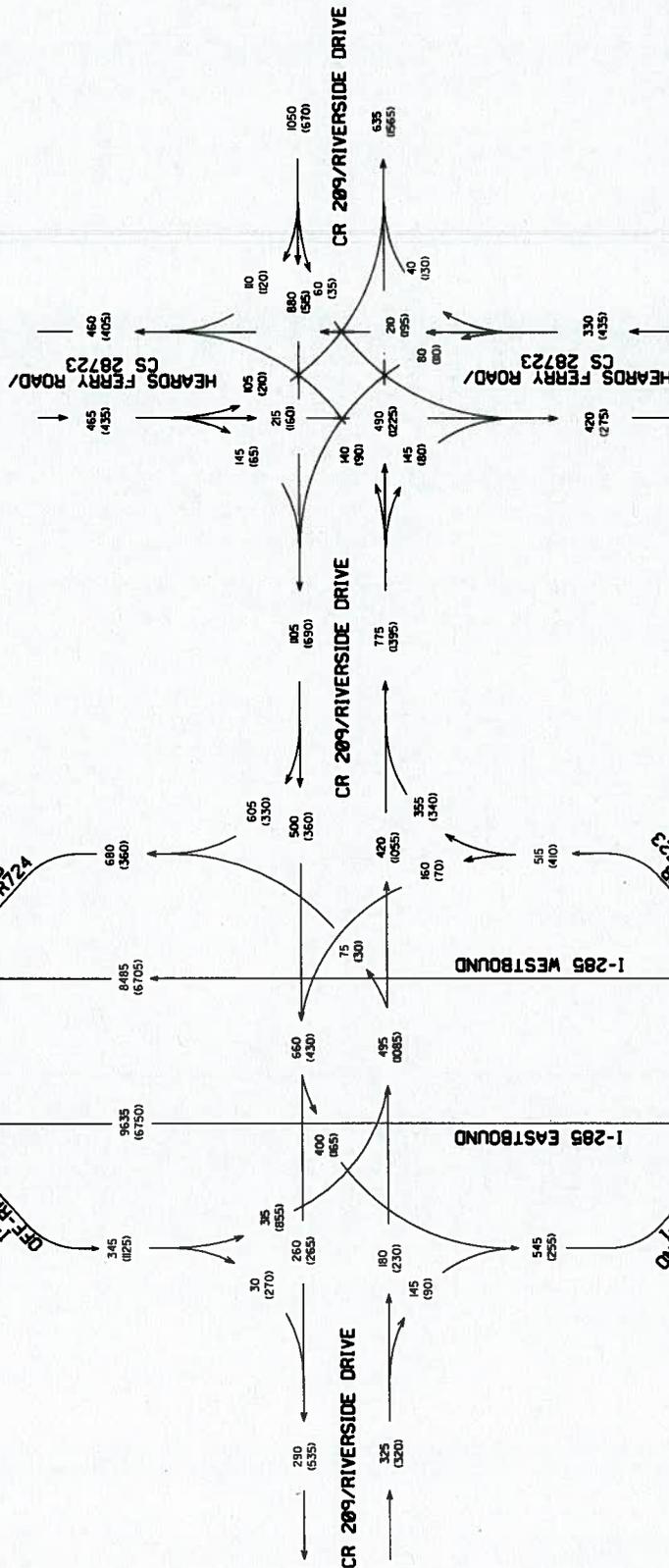
TRUCK PERCENTAGES			
LOCATION	PK HR	% S.U.	% COMB %
RIVERSIDE DR	8.5%	6.5%	2%
I-285	5%	2%	3%
R123	2.5%	2%	0.5%
R124	10%	9%	1%
R723	4%	3%	1%
R724	3%	2.5%	0.5%

\*\* LARGE TRUCKS PROHIBITED

I-285 RAMPS AT  
 CR 209/RIVERSIDE DRIVE  
 PI NO. 0010925  
 FULTON COUNTY  
 AM PEAK HOUR = 000  
 PM PEAK HOUR = (000)  
 COMPLETED BY: KC  
 CHECKED BY: SR  
 DATE: 10/31/2013



OPEN (2015) DHV  
NO-BUILD



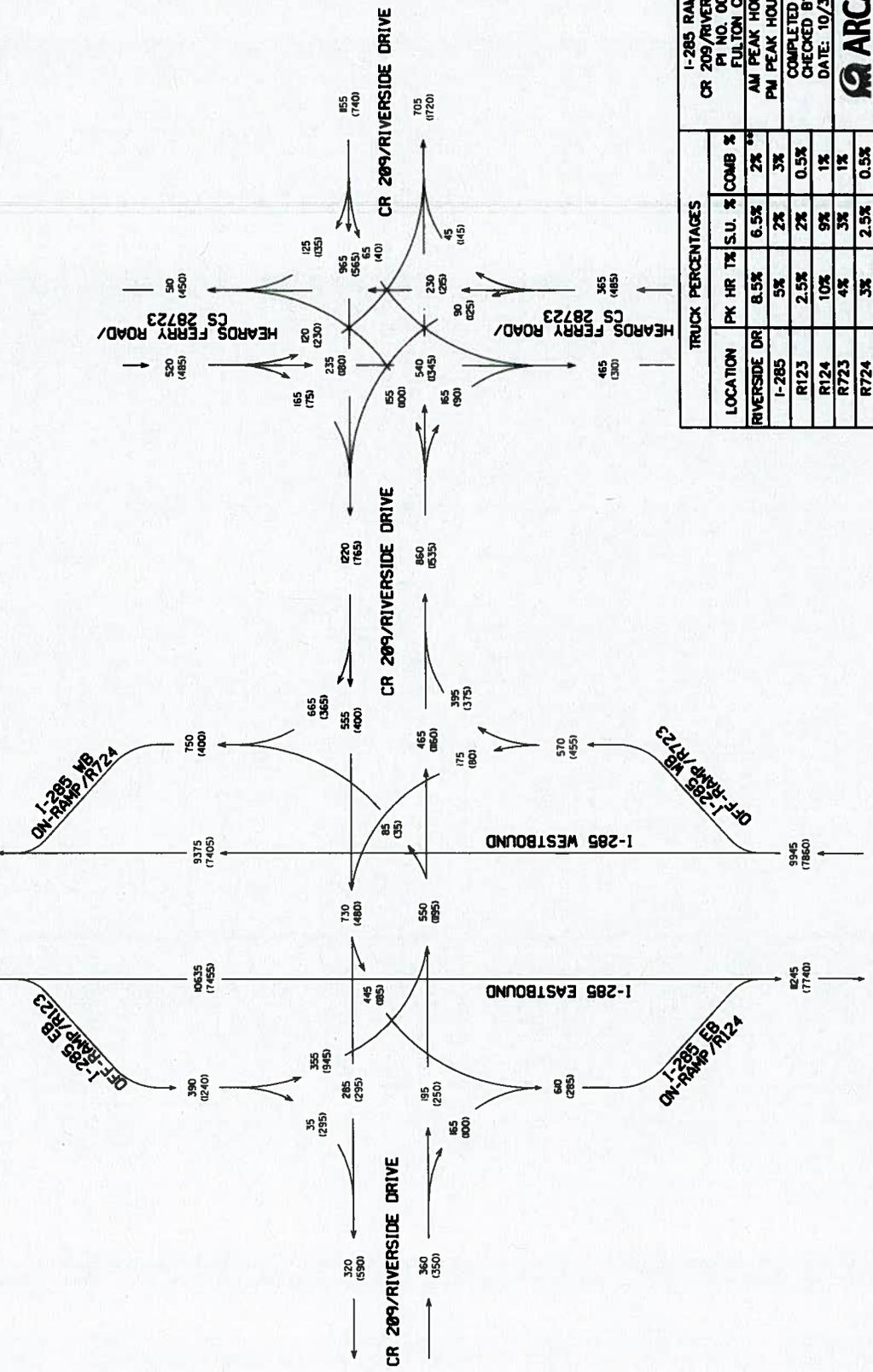
TRUCK PERCENTAGES			
LOCATION	PK	HR	% COMB %
RIVERSIDE DR	8.5%	6.5%	2%
I-285	5%	2%	3%
R123	2.5%	2%	0.5%
R124	10%	9%	1%
R723	4%	3%	1%
R724	3%	2.5%	0.5%
** LARGE TRUCKS PROHIBITED			

I-285 RAMPS AT CR 209/RIVERSIDE DRIVE PI NO. 0010925 FULTON COUNTY			
AM PEAK HOUR = 000 PM PEAK HOUR = (000)			
COMPLETED BY: KC CHECKED BY: SR DATE: 10/31/2013			
 Infrastructure, Water, Environment, Buildings			

DESIGN (2035) DHV  
NO-BUILD

SHEET 5 OF 9



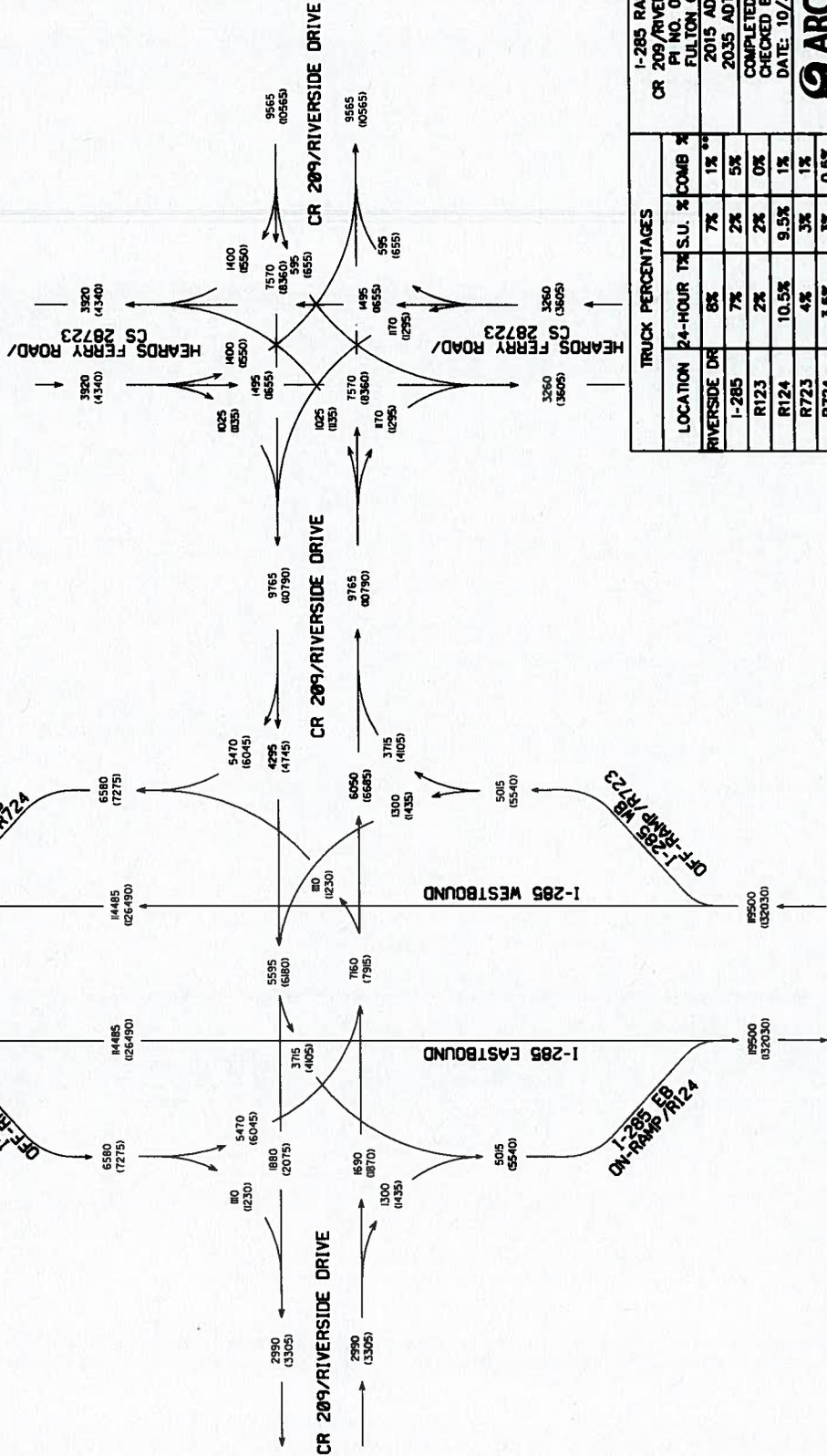
TRUCK PERCENTAGES			
LOCATION	PK	HR	%
RIVERSIDE DR	8.5%	2%	2%
I-285	5%	2%	3%
R123	2.5%	2%	0.5%
R124	10%	9%	1%
R723	4%	3%	1%
R724	3%	2.5%	0.5%

•• LARGE TRUCKS PROHIBITED

I-285 RAMPS AT  
CR 209/RIVERSIDE DRIVE  
PI NO. 0010925  
FULTON COUNTY  
AM PEAK HOUR = 000  
PM PEAK HOUR = (000)  
COMPLETED BY: KC  
CHECKED BY: SR  
DATE: 10/31/2013



OPEN (2015)/DESIGN (2035) ADT  
NO-BUILD



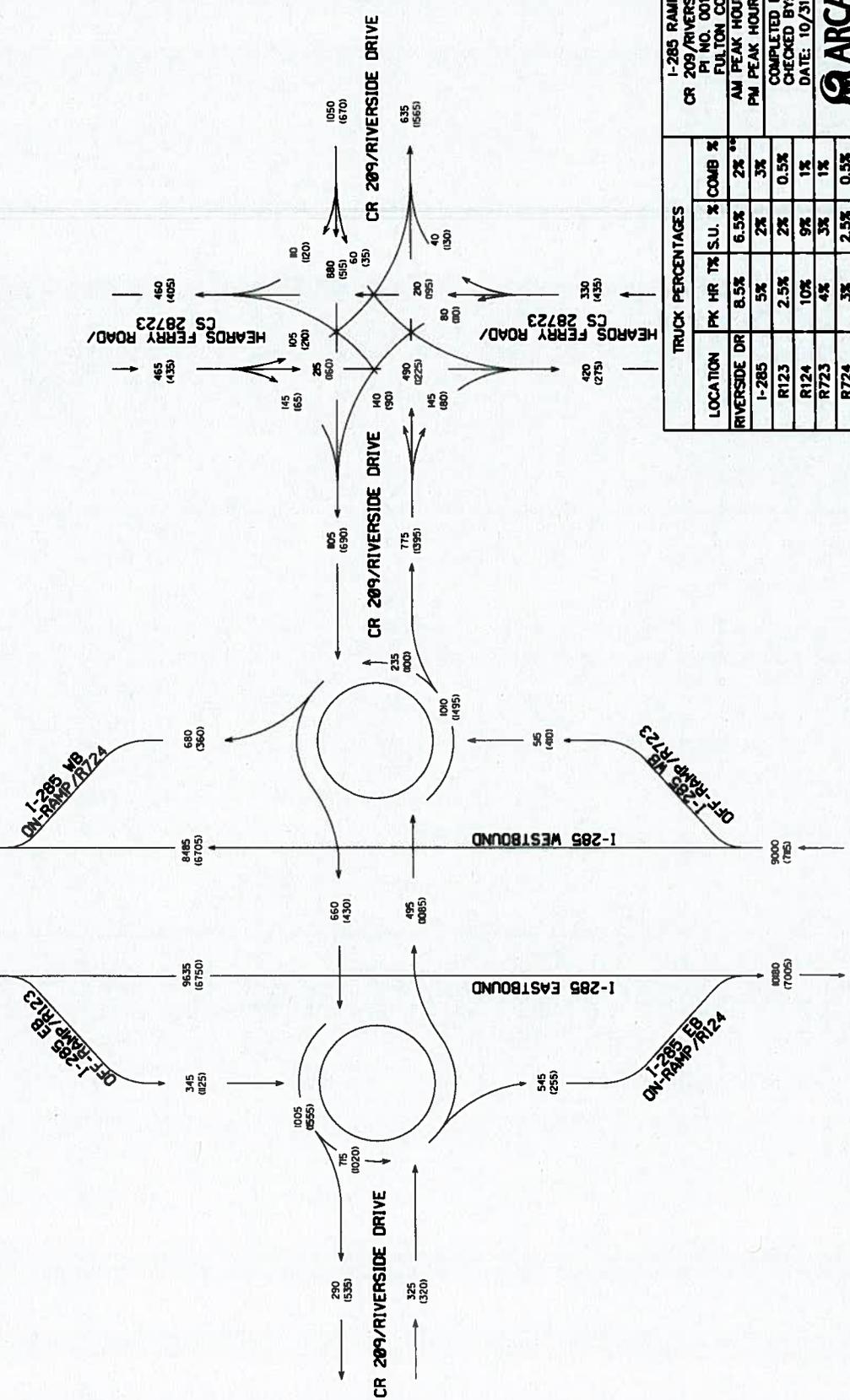
TRUCK PERCENTAGES			
LOCATION	24-HOUR	% S.U.	% COMB *
RIVERSIDE DR	8%	7%	1%
I-285	7%	2%	5%
R123	2%	2%	0%
R124	10.5%	9.5%	1%
R723	4%	3%	1%
R724	3.5%	3%	0.5%

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I-285 RAMPS AT  
CR 209/RIVERSIDE DRIVE  
PI NO. 0010925  
FULTON COUNTY  
2015 ADT = 000  
2035 ADT = (000)  
COMPLETED BY: KC  
CHECKED BY: SR  
DATE: 10/31/2013



OPEN (2015) DHV  
BUILD



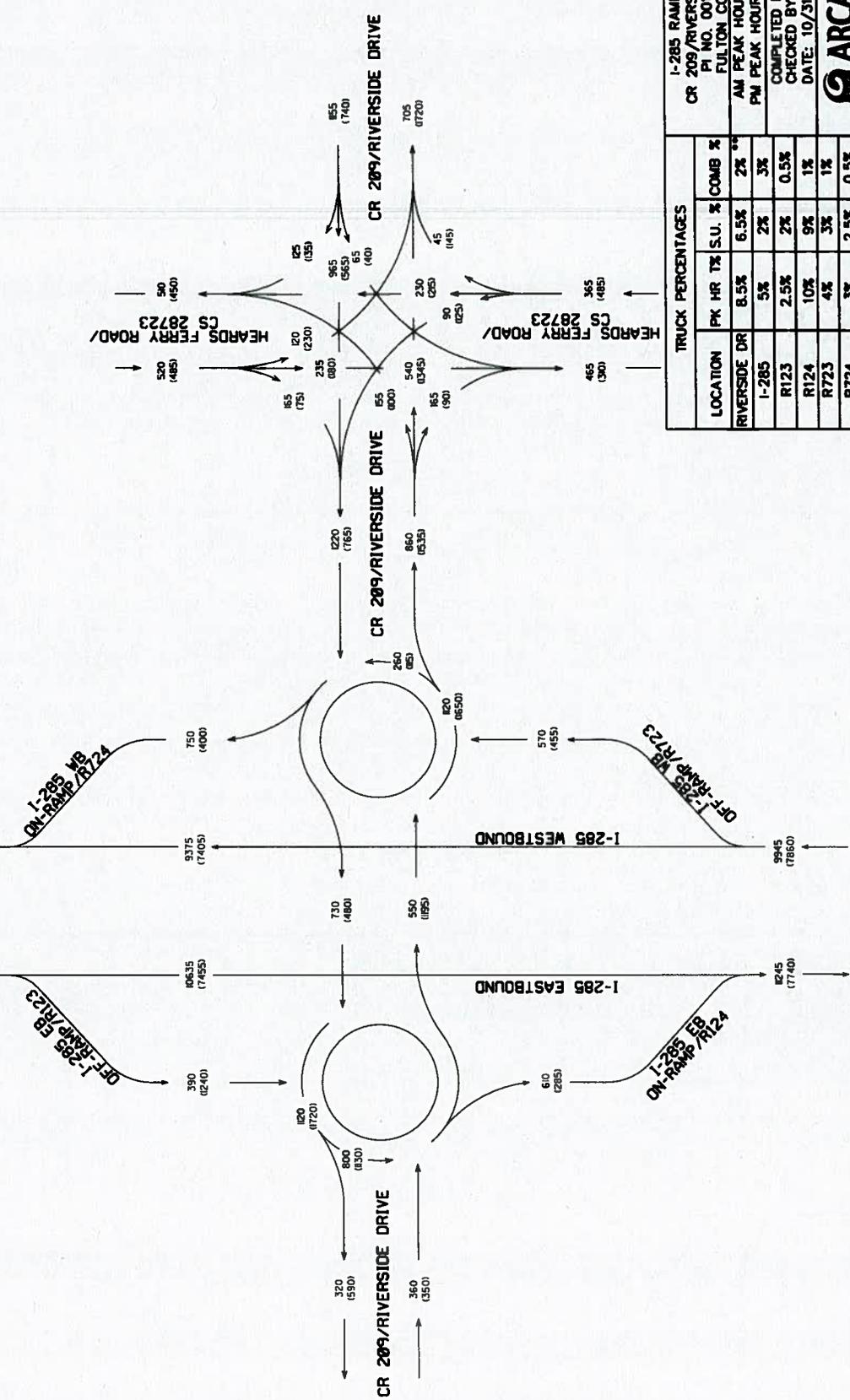
TRUCK PERCENTAGES			
LOCATION	PK HR	% S.U.	% COMB %
RIVERSIDE DR	8.5%	6.5%	2%
I-285	5%	2%	3%
R123	2.5%	2%	0.5%
R124	10%	9%	1%
R723	4%	3%	1%
R724	3%	2.5%	0.5%

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I-285 RAMPS AT  
CR 209/RIVERSIDE DRIVE  
PI NO. 0010925  
FULTON COUNTY  
AM PEAK HOUR = 000  
PM PEAK HOUR = (000)  
COMPLETED BY: KC  
CHECKED BY: SR  
DATE: 10/31/2013



DESIGN (2035) DHV  
BUILD



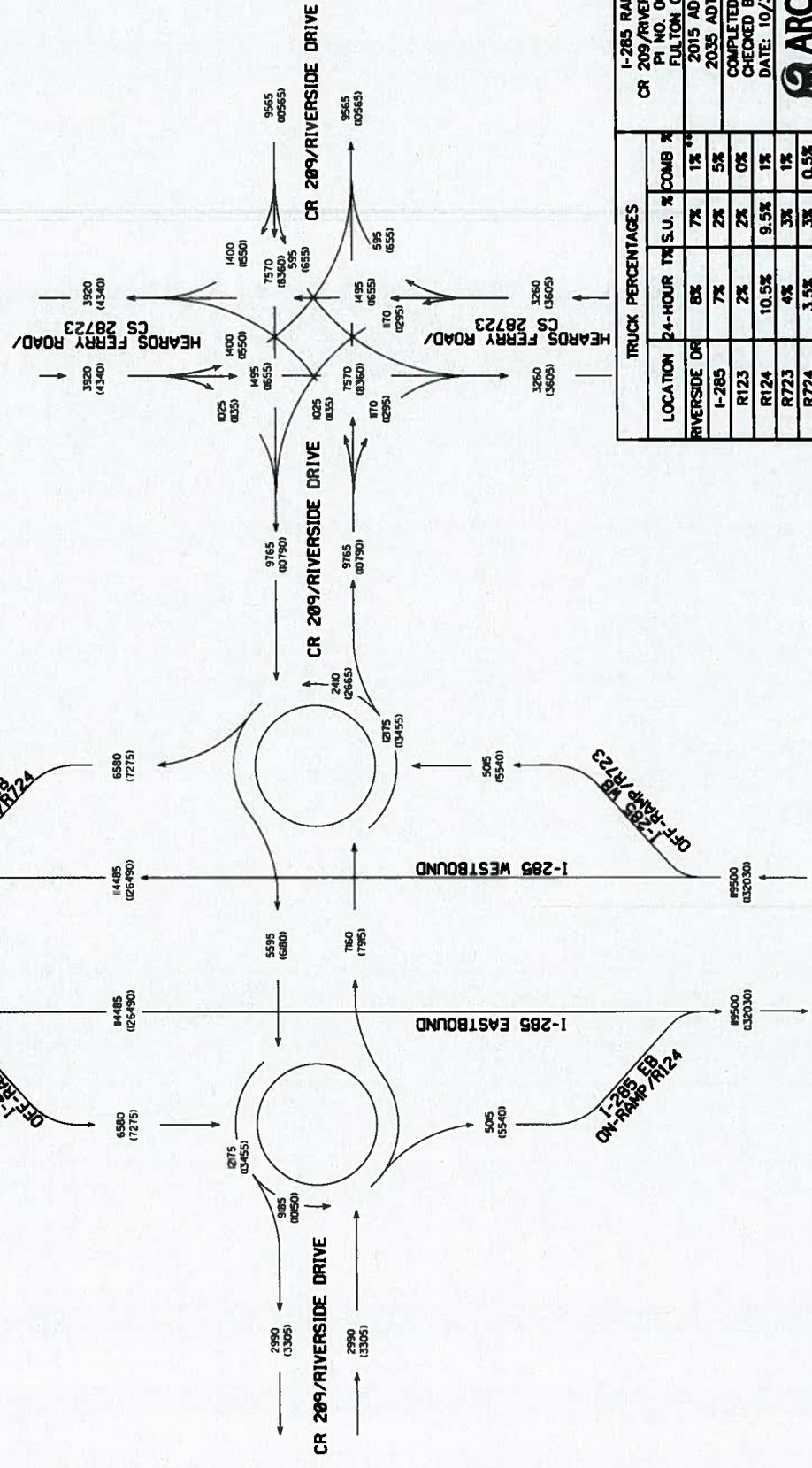
TRUCK PERCENTAGES			
LOCATION	PK HR	% S.U.	% COMB %
RIVERSIDE DR	8.5%	6.5%	2%
I-285	5%	2%	3%
R123	2.5%	2%	0.5%
R124	10%	9%	1%
R723	4%	3%	1%
R724	3%	2.5%	0.5%

•• LARGE TRUCKS PROHIBITED

I-285 RAMPS AT  
CR 209/RIVERSIDE DRIVE  
PI NO. 0010925  
FULTON COUNTY  
AM PEAK HOUR = 000  
PM PEAK HOUR = (000)  
COMPLETED BY: KC  
CHECKED BY: SR  
DATE: 10/31/2013



OPEN (2015)/DESIGN (2035) ADT  
 BUILD  
 DRAFT



TRUCK PERCENTAGES		
LOCATION	24-HOUR TRUCK %	% COMB %
RIVERSIDE DR	8%	7%
I-285	7%	2%
R123	2%	2%
R124	10.5%	9.5%
R723	4%	3%
R724	3.5%	0.5%

1-285 RAMPS AT  
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 PI NO. 0010925  
 FULTON COUNTY  
 2015 ADT = 000  
 2035 ADT = (000)  
 COMPLETED BY: KC  
 CHECKED BY: SR  
 DATE: 10/31/2013

**ARCADIS**  
 Infrastructure, Water, Environment, Buildings

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