METROPOLITAN PLANNING ORGANIZATION

2009 Congestion Management Process (CMP) Update

PREPARED BY THE COASTAL REGION METROPOLITAN PLANNING ORGANIZATION (CORE MPO)

CORE/MPO is the Metropolitan Planning Organization (MPO) responsible for Chatham County transportation planning. The MPO is composed of representatives of local, state, and federal government and transportation authorities and ensures federal spending on transportation for urbanized areas of over 50,000 people occurs through a comprehensive, cooperative and continuing process involving both the public and policy makers. The MPC provides staff services to the CORE/MPO Policy Committee, which is chaired by the chairman of the Chatham County Board of County Commissioners.

May 12, 2009

2009 CONGESTION MANAGEMENT PROCESS UPDATE

Prepared for:

Coastal Region Metropolitan Planning Organization (CORE MPO)

Prepared by:

May 12, 2009

TABLE OF CONTENTS

1.0 INTRODUCTION 4
1.1 Goal 5
1.2 Overview of Federal Requirements for a CMP 5
1.3 Overview of 2004 Chatham County-Savannah MPC CMS Report 7
2.0 DEVELOPMENT OF PERFORMANCE MEASURES 9
2.1 Process for Determining Performance Measures 9
2.1.1 Overview of Quantitative Performance Measures: 2004 Congestion Management System Report 9
2.1.2 Group Work Session to Develop CMP Update Performance Measures (3-12-08) 10
2.1.3 Peer Review of Other Regions 10
2.2 Recommended Performance Measures 13
3.0 CONGESTION MANAGEMENT STRATEGY DEVELOPMENT AND ANALYSIS 14
3.1 Congestion Management through Traffic Operational Improvements – Case Study: Victory Drive Hot-Spot Analysis 14
3.1.1 Existing Conditions 16
3.1.2 Alternatives Analysis 19
3.1.3 Short-range Improvements/Recommendations 30
3.1.3.1 Recommendations for Victory Drive Corridor 30
3.1.3.2 Recommendations for CORE MPO Region 30
3.1.4 Long-range Improvements/Recommendations 32
3.2 Congestion Management through Traffic Operational Improvements – Case Study: SR 21 Hot Spot Analysis 33
3.1.5 Short-range Improvements/Recommendations 37
3.1.3.1 Recommendations for the SR 21 Corridor 37
3.3 Congestion Management Using a System-Wide Approach – Case Study: Gap Analysis, Effingham Parkway Extension 37
3.3.1 Existing Conditions 38
3.2.2 Alternatives Analysis 41
3.2.3 Recommendations 44
4.0 DATA COLLECTION, MONITORING, AND IMPLEMENTATION 49
4.1 TMC Analysis and Recommendations 49
4.1.1 Types of TMCs 50
4.1.2 Major Functions of a TMC 50
4.1.3 Benefits of a TMC 52
4.1.4 Costs and Funding Sources of a TMC 52
4.1.4.1 Costs of Georgia Navigator TMC 54

4.1.4.2 Costs of Clayton County Traffic Control Center (TCC) 54
4.1.4.2 Costs of SMART SunGuide TMC 55
4.1.5 TMC Recommendation for CORE MPO 56
4.2 Summary of 2004 Congestion Management System Report Recommendations 57
4.3 CORE MPO CMP Update Recommendations 60

LIST OF TABLES

Table 1. CMP Federal Requirements 6
Table 2. Summary of the CORE MPO Region System Performance 7
Table 3. Peer Review of CMP Performance Measures 11
Table 4. Existing Conditions - Victory Drive Level-of-Service and Capacity 17
Table 5. Shopping Center Northbound Approach Queue Lengths, Associated with Alternatives 1 and 2: Intersection of Victory Drive and Wallin Street 22
Table 6. 2030 Conditions PM Peak Hour – Victory Drive Area, Intersection Capacity Analysis Results 25
Table 7. Summary of CORE MPO 2030 Constrained Model Results 29
Table 9. Congestion Mitigation Measures for Implemnentation Across CORE MPO 31
Table 10. Policy Considerations for Congestion Mitigation in CORE MPO 31
Table 11. Existing Conditions: SR 21 Level of Service and Capacity (PM Peak Hour) 35
Table 12. Average Costs for TMCs, by Size of Area Served 53
Table 13. Projected Expenditures for the Georgia Navigator 54
Table 14. SMART SunGuide TMC (FDOT) Annual Costs, Adjusted to 2006 Dollars 55

LIST OF FIGURES

Figure 1. CORE MPO CMP Cycle 5
Figure 2. Summary of 2004 CMS Recommendations or Other Project Status 8
Figure 3. Study Area: Victory Drive Hot-Spot Analysis 16
Figure 4. Proposed Short-Term Victory Drive Improvement Alternatives 20
Figure 5. Proposed Short-Term Victory Drive Improvement Alternatives 21
Figure 6. Shopping Center Queue Lengths Associated with Alternatives 1 and 2 22
Figure 7. Sight Distance Issues at Victory Drive/Walling Street: Live Oak Trees 23
Figure 8. Proposed Frontage Road, Alternative 5 24
Figure 9. Conceptual Layout of Victory Drive Bypass Alternative 27
Figure 10. SR 21 Study Area Intersections 35
Figure 11. Effingham Parkway Extension Gap Analysis Study Area 39
Figure 12. Existing Land Use 40
Figure 13. Wetlands 45
Figure 14. Zoning 46
Figure 15. Projects Proposed in the Area of Effingham Parkway Extension 47
Figure 16. Proposed Effingham Parkway Extension Alternatives 48
Figure 17. Typical Sources of Recurrent and Non-Recurrent Congestion 50
Figure 18. Typical Structure of a Transportation Management Center 51

Figure 19. Goals and Expected Outcomes for CORE MPO TMC 56
Figure 20. Top 20 Congested Segments in CORE MPO Region, 2004 CMS 58
Figure 21. CORE MPO CMP Update Recommendation Modules 60
Figure 22. CORE MPO Congestion Management Process Components 61

APPENDICES

Appendix A. *Chatham County-Savannah Metropolitan Planning Commission Congestion Management System Report – 2004*

Appendix B. Victory Drive and SR 21 Analysis: Traffic Data and Techinical Memoranda

Appendix C. Additional Information: Transportation Management Centers

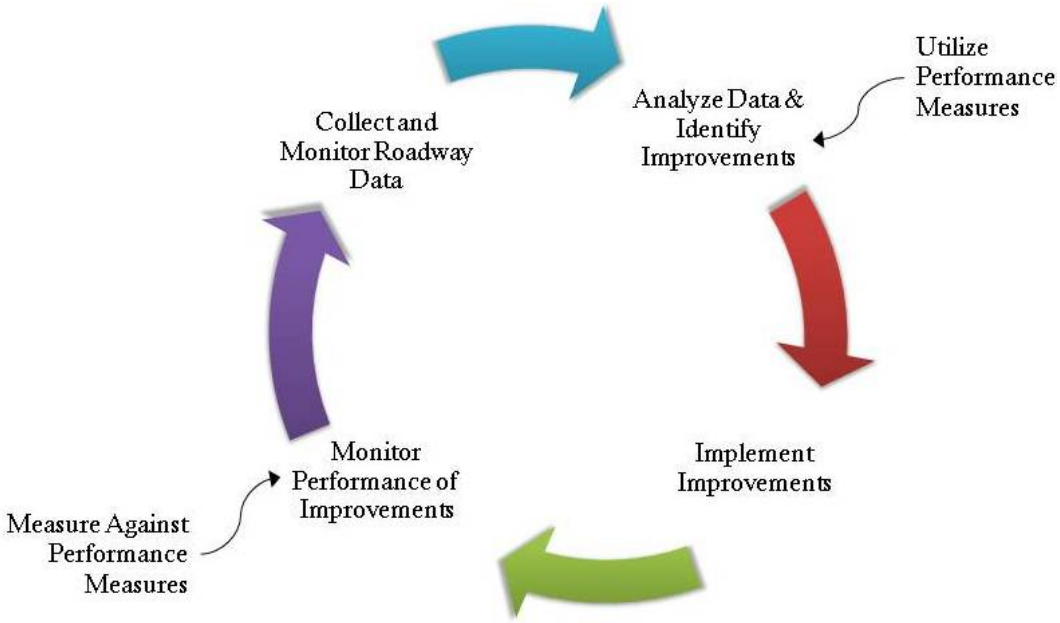
1.0 Introduction

This Congestion Management Process (CMP) Update for the Coastal Region Metropolitan Planning Organization (CORE MPO) was compiled to evaluate and address congestion in the Savannah region. CORE MPO is the federally-designated MPO for the Savannah area, and it carries out the transportation planning for the region. Transportation Management Areas, which are urbanized areas with a population of over 200,000[1], are required to develop a Congestion Management Process (CMP). The CMP outlines how congestion will be managed through a series of recommendations and tools to be continuously implemented to enhance mobility across the multimodal transportation system. Congestion is the level at which transportation system performance is no longer acceptable due to traffic interference. There are two kinds of congestion: 1) recurring congestion that happens in short time periods and is predictable (rush hour, for example), and 2) non-recurring congestion that is caused by unforeseen incidents and is less predictable.

CORE MPO is undertaking this CMP update to supplement the current *2004 Chatham County-Savannah MPC Congestion Management System Report* (CMS Report), which is detailed in **Section 1.3: Overview of 2004 Chatham County-Savannah MPC CMS Report**. Previously, a CMP was known as a Congestion Management System (CMS). With the passing of the Safe, Accountable, Flexible, Efficient Transportation Legacy Act: A Legacy for Users (SAFETEA-LU) that became effective March 16, 2007, the name was changed to indicate that congestion management is an ongoing process undertaken by cities and regions. The 2004 CMS was updated in 2007 and is SAFETEA-LU compliant. A CMP is intended to be used by urbanized areas to monitor, analyze, implement, and manage strategies to mitigate congestion in the area. It is "a systematic process for managing congestion and enhance the mobility of persons and goods to levels that meet State and local needs."[2] The 2009 Update of the 2007 CMP identifies ways to continuously collect and monitor data, analyze the data and identify necessary improvements, implement the improvements, and manage the improvements. The 2009 CMP Update incorporates a two-tiered approach, utilizing both "hot spot" and systems-level methodologies to address congestion. This CMP Update is a continuous cycle as shown in Figure 1.

[1] *As of latest U.S. Census*
[2] *23 CFR 500.109*

Figure 1. CORE MPO CMP Cycle



Source: CORE MPO CMP Update Study Team

This updated CMP process will become a crucial component of all transportation planning efforts throughout the region. Implementation of this innovative CMP process will result in the identification of new congestion management strategies as the region grows and changes, and ultimately, an enhanced multimodal transportation system for the entire Chatham County and Savannah region.

1.1 Goal

Through this CMP Update, a streamlined approach to addressing congestion and improving the transportation network has been developed. This goal will be accomplished by identifying a set of performance measures and tools that can be applied to congested corridors throughout the MPO. It will also expand upon goals from the 2007 CMP, which included the following key elements: to 1) identify problem areas through the use of travel-time studies, and 2) present recommendations to improve the traffic flow on the transportation system as a whole as well as on specific corridors.[3]

1.2 Overview of Federal Requirements for a CMP

SAFETEA-LU was enacted in August 2005, and requires all metropolitan planning regions with a population above 200,000 to include a CMP as part of their planning process. The regulations state that:

> *The transportation planning process in a TMA shall address congestion management through a process that provides for safe and effective integrated management and operation of the multimodal transportation system, based on a cooperatively developed and implemented*

[3] Congestion Management System Report – 2004, *Chatham County-Savannah Metropolitan Planning Commission.*

metropolitan-wide strategy, of new and existing transportation facilities… through the use of travel demand reduction and operational management strategies.[4]

The regulations state that at a minimum, the planning agency must follow guidelines for the CMP, but the specifics of accomplishing the congestion management measures are left up to the agency. Table 1 below outlines the federal guidance for a CMP.

Table 1. CMP Federal Requirements

Requirement	Methods
Problem Identification	a. Develop methods to evaluate the performance of the multimodal system b. Identify the causes of recurring and non-recurring congestion c. Identify and evaluate alternative strategies d. Provide information supporting the implementation of actions e. Evaluate the effectiveness of the implemented actions
Congestion Management Objectives and Performance Measures	a. Define congestion management objectives b. Define appropriate performance measures to assess congestion and support the evaluation of effectiveness of congestion reduction i. Performance measures should be specific to MPO ii. Performance measures should be developed cooperatively by the State, MPO, and local officials in consultation with operators of major transportation modes within the area.
Establishment of CMP Program for Data Collection and Monitoring	a. To assist with determining causes of congestion b. To assist with system performance monitoring to define extent and duration of congestion c. To assist with evaluation of the efficiency and effectiveness of implemented actions
Identification and Evaluation of Performance Measures and Strategies	a. Potential strategies include: i. Demand management (i.e. growth management and congestion pricing) ii. Traffic operations iii. Transit improvements iv. ITS technologies v. Additional system capacity, where necessary
Implementation	a. Schedule b. Responsibilities c. Funding sources for each strategy
Process for Periodic Assessment	a. Develop process to assess the effectiveness of the implemented strategies (in terms of area's performance measures) b. Present results to decision makers and public on selection of effective strategies for future implementation

Source: CFR §450.320 (c)

[4] *§450.320(a), Metropolitan Transportation Planning, Final Rule, Federal Register, February 14, 2007*

The CORE MPO CMP Update addresses each of these guidelines in a way that meets the goals and objectives specific to the CORE MPO region.

1.3 Overview of 2004 Chatham County-Savannah MPC CMS Report

The 2004 CMS was developed to aid the MPO in identifying congestion and mobility problems and to recommend mitigation measures. To accomplish this, the report included travel time studies that examined specific corridors as well as the transportation system as a whole. In this study, approximately 313 centerline miles of 59 different roadways in Chatham County were evaluated using various data collection techniques.

The 2004 CMS Report analyzed each of these roadways to determine the Level-of-Service (LOS) for each. Overall, with the 589 directional miles that were considered, 531.7 miles had a LOS A-C and 57.1 miles were D-F, indicating that approximately 10% of the roadways studied were congested. For the segments with a LOS between D and F, recommended improvements were developed. Table 2 below is a summary of the LOS findings for the CORE MPO transportation system as a whole. More detailed, segment-by-segment analysis and recommendations can be found in Appendix A in the complete *2004 Congestion Management System Report*.

Table 2. Summary of the CORE MPO Region System Performance

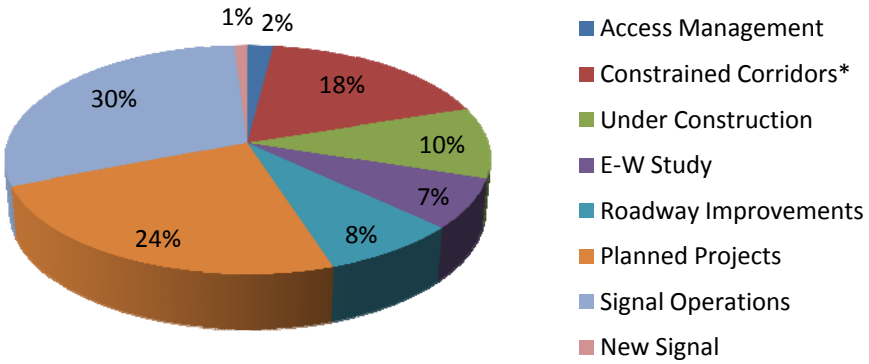
LOS	Time Period	Number of Miles	Percentage	Summary LOS A-C and D-F			Average LOS A-C and D-F	
				Time period	Number of Miles	Percentage	Number of Miles	Percentage
A	AM	318.1	67.1%	AM	542.4	90.3%	531.7	90.3%
	MD	338.5	71.1%					
	PM	275.9	61.0%					
B	AM	89.2	14.0%	MD	546.0	90.3%		
	MD	88.6	14.1%					
	PM	93.5	15.6%					
C	AM	67.0	11.0%	PM	506.6	83.1%		
	MD	46.9	7.5%					
	PM	67.0	9.4%					
D	AM	21.8	3.6%	AM	46.4	9.7%	57.1	9.7%
	MD	28.1	3.9%					
	PM	44.2	7.0%					
E	AM	16.0	2.4%	MD	42.8	9.7%		
	MD	12.8	1.8%					
	PM	22.6	4.0%					
F	AM	13.1	1.9%	PM	82.1	16.9%		
	MD	10.3	1.5%					
	PM	22.0	3.0%					

AM = Morning peak MD = Midday peak PM = PM peak

Source: 2004 Chatham County – Savannah MPC CMS Report

According to the 2004 CMS, the majority of the projects in need of congestion management measures were either already addressed through planned projects (at that time) or were related to traffic signal operations. Other types of improvements identified were access management, multi-modal considerations, new signal installation (where stop signs currently exist), and roadway widening. Figure 2 below from the 2004 CMS provides a summary of recommended improvements or other current project status for the congested corridors that were identified.

Figure 2. Summary of 2004 CMS Recommendations or Other Project Status



* For constrained corridors, improvements are limited to optimizing signal operations or improving surrounding roadways. However, the majority of these roadways are in the urban core, where delays are acceptable. Constrained roadways are typically roads whose ability to expand or widen is limited or restricted due to constraints such as a canopy or unavailable surrounding right of way.

Source: 2004 Chatham County – Savannah MPC CMS Report

2.0 Development of Performance Measures

A crucial component of the Congestion Management Process is the development of performance measures, indicators of how well the transportation system is functioning. Performance measures are objective ways to track progress or determine the degree of success of a particular project or plan, in this case the reduction of congestion, in following its stated goals and objectives. There are many ways to measure congestion and system performance. Some examples are crash rates, extent of recurring and non-recurring congestion, throughput, customer satisfaction, speed, travel time, enhancement of economic vitality, and connectivity to various land uses. Performance measures can be both quantitative, a function of actual facility volume to accepted facility capacity, and qualitative, how well one feels the facility meets his or her needs. This CMP Update will identify the performance measures that will best meet the needs of the CORE MPO region.

2.1 Process for Determining Performance Measures

The performance measures for the CMP Update were developed through a process to determine what would be best-suited to the CORE MPO region. This began by reviewing the performance measures identified in the previous 2004 CMS. Next, CORE MPO staff members and their consultants were engaged in a work session to discuss the issues and opportunities that are facing them, and how these can be translated into performance measures. Finally, before measures were selected for this report, a peer review of other regions was conducted to identify the best practices that are being used in other areas. Further detail of this process is provided in the following sections.

Performance measures should be selected so that they are easily understood by the general public. They should also be easy to incorporate into the process through transportation decisions are made. Additionally, the level of acceptable performance for roadways may vary depending on the type and location of facility, which should be taken into account as performance measures are chosen.

2.1.1 Overview of Quantitative Performance Measures: 2004 Congestion Management System Report

In the 2004 CMS Report, the performance measures utilized were quantitative, meaning that the indicators were able to be calculated in some form or were easily defined. The measures that were developed through the previous study are the congestion index (CI) for roadway segments and the approach LOS for intersections. Congestion index is the ratio of actual speed to posted speed, calculated by:

CI = Actual travel time / Theoretical travel time, where
Actual travel time = recorded travel time for a given segment and
Theoretical travel time = segment length / posted speed limit[5]

Defined by the Highway Capacity Manual (2000), LOS is a measure that describes the operational conditions of a facility, taking into account speed, travel time, freedom to maneuver, traffic interruption, and comfort and convenience. These range from LOS A, indicating the least congestion operating at free flow conditions, to F, the most congestion at forced or breakdown flow.

[5] Congestion Management System Report – 2004*, Chatham County-Savannah Metropolitan Planning Commission.*

The performance measures chosen for the 2004 CMS provided a reference point as the roadways in the region were compared to one another. The MPO was then able to use this information to identify congestion and mobility problems.

2.1.2 Group Work Session to Develop CMP Update Performance Measures (3-12-08)

On March 12, 2008, a work session was held between members of the MPO staff and RS&H staff. The purpose of this work session was to review the current status of the CMP Update and determine the next steps that needed to take place. A group "brainstorming" session was facilitated to identify some of the performance measures that could possibly be implemented for various corridors in the MPO. Some of the performance measures discussed were:

- Maintain regional mobility;
- Create a hierarchy of trip purpose;
- Support sustainable development;
- Mix uses to minimize trips;
- Implement people-scaled development to support civic vitality;
- Maintain economic vitality for business owners; and
- Maintain the land use-transportation connection to enhance mobility.

As opposed to the quantitative performance measures of the 2004 CMS, the majority of the performance measures discussed at the March 2008 brainstorming session were more qualitative.

2.1.3 Peer Review of Other Regions

A review of the best practices was conducted to help evaluate the existing CORE MPO congestion management performance measures from the 2004 CMS and 2007 CMP and to identify potential alternatives based upon a review of peer MPOs across the U.S. In addition to the performance measures utilized in the CUTS 2004 CMS, other MPOs utilize a broad range of performance measures to help them monitor and gauge progress on mobility improvement within their jurisdictions. However, many of the measures utilized require detailed data sets that are not readily available to smaller MPOs such as CORE MPO. One example is the use of a Travel Time Index (TTI)[6] that is utilized by the Atlanta Regional Commission (ARC) and the Georgia Regional Transportation Authority (GRTA) for the Metropolitan Atlanta Region. The TTI requires peak-period data on a regional basis for the major facilities included on the congestion management network. The ARC regional travel demand model is a peak-period model with the ability to determine peak-period congestion and travel time. The CORE MPO travel demand model is a daily model and does not have the capability to determine congestion and travel time for individual peak periods within each day. Without the development of an entirely new travel demand, such roadway performance measures are not feasible at this time. Table 3 on the following pages presents the additional findings of the peer review of performance measures used for congestion management in other regions.

[6] *TTI is the ratio of the travel time during the peak period to the time required to make the same trip at free-flow (uncongested) speeds.*

Table 3. Peer Review of CMP Performance Measures

Type	Typical Metrics	Strengths	Limitations	Cost	Level of Effort	Examples (MPOs)
Traditional	▪ Volume-to-capacity ratio ▪ Level of service	▪ Generally accepted as reasonable measures ▪ Large existing body of experience in defining and applying ▪ Can serve to quickly screen and identify congested locations ▪ Data generally readily available	▪ Focuses on movement of vehicles, rather than people ▪ Engineering focused - may not be readily understood by public ▪ Potentially deceptive; when high, volume may be dictated by roadway capacity rather than demand	Low to Medium	Low	Many agencies have selected these traditional performance measures, mainly relying on state DOTs and local jurisdiction traffic counts for their data.
Travel Time *	▪ Travel time ▪ Travel speed ▪ Average delay ▪ Travel time index	▪ Metrics are easily understood by the traveling public ▪ Can be easily translated into other measures like user costs ▪ Can be used to validate travel demand forecasting models	▪ Generally does not address amount of travel supplied or demanded ▪ May require substantial data collection resources	Low to Medium	Low to Medium	Capital Area Metropolitan Planning Organization (CAMPO) utilizes travel-speed-related measures to identify congested locations. CAMPO defined minimum threshold acceptable speeds based on the type of road and the area through which that road travels, with lower speeds more acceptable in central business district location than in a rural area.
Congestion Duration and Extent	▪ Hours of delay ▪ Lane miles at LOS F ▪ Hours per day at LOS F	▪ Provides another dimension of congestion analysis, allowing further distinctions to be made ▪ Particularly valuable to show changes in performance in locations where is it not possible to eliminate congestion	May require more extensive data collection efforts	Low to Medium	Low	East-West Gateway Coordinating Council (EWGC) measured its CMS network via aerial photography. Multiple photographs were taken during three hour a.m. and p.m. peak periods, producing traffic volume and density numbers for several points at the same time. The information allowed EWGC to track the duration of congestion along congested links, distinguishing links with prolonged congestion from those that are congested over portions of the peak periods. Maricopa Association of Governments (MAG) has conducted an analysis of intersection and highway segment LOS. MAG used 24-hour traffic counts and aerial photography to determine the duration of congestion at congested locations. MAG also tabulated the number of monitored intersections operating under congested conditions as well as the number of miles of the designated CMS network.
Reliability (non-recurring congestion)	▪ Travel time variation ▪ Simulated indicators ▪ Proxy measures (i.e. number or extent of construction activities, number of breakdowns and accidents, average clearance time for incidents)	▪ Focuses attention on a major component of travel delay that is often overlooked in traditional analyses and modeling ▪ Addresses the aspect of congestion that is most frustrating to travelers ▪ Important to freight shippers	▪ Data needs are intensive or specialized ▪ Few readily available sources of data	Medium	Medium	North Jersey Transportation Planning Authority (NJTPA) has selected a reliability index that compares non-recurring delay to total delay. NJTPA uses a special post-processing module to its travel demand model to help produce this indicator.
Transit Travel	▪ Load capacity	Focuses attention on transit travel and needed improvements	▪ May be political sensitivity to showing transit performance	Low	Medium	Boston MPO measures peak-period passenger crowding and on-time performance by transit line. Using data collected on the regional transit system, the Massachusetts Bay

Type	Typical Metrics	Strengths	Limitations	Cost	Level of Effort	Examples (MPOs)
Condition	▪ Reliability of performance		▪ Data may not be readily available			Transportation Authority, the Boston MPO reports number of passengers per seat on transit lines in the peak period as well as the percentage of trips operating within five minutes of scheduled times.
Availability / Service Level for non-motorized travel	▪ Extent of the bicycle, pedestrian, or transit network, and usage of networks	▪ Balances the focus on roadway congestion by providing a way to evaluate transit, bicycle, and pedestrian needs ▪ Focuses attention on driving alternatives, which relates to managing congestion by curbing demand for roadway use ▪ Can identify most critical improvements needed for improving availability/service for alternative travel modes	Data may not be readily available	Low to Medium	Medium	Hampton Roads Planning District Commission (HRPDC) provides an inventory of regional bicycle facilities in its CMS Wilmington Metropolitan Area Planning Council (WILMAPCO) provides an inventory of all existing non-motorized facilities, including sidewalks, crosswalks, footpaths and dedicated bike lanes along CMS network. The purpose is to show the extent to which non-motorized facilities have been provided and the further potential for addressing congestion by promoting non-motorized travel, as represented by gaps in the non-motorized system.
Accessibility	▪ Number or share of population access to desired destinations	▪ Focuses attention on the link between transportation and land use ▪ Addresses the demand side of travel mobility	Data are often not readily available	Medium	Medium	Regional Transportation Commission of Southern Nevada (RTC) in Las Vegas reports the percentage of the region's housing units that are located within 1/4 mile of transit service. RTC used census data and GIS to develop the analysis.
Freight	▪ Volume-to-capacity ratio ▪ Travel time index	Focuses attention on freight impacts of congestion	Data may not be readily available for measuring freight-related performance	Low	Medium	WILMAPCO reports truck volumes on major CMS routes. Using data from Delaware DOT, WILMPACO maps the information to display the daily truck traffic experienced by CMS routes. The data range from less than 500 trucks per day to over 5,000 tucks per day. Chicago Area Transportation Study (CATS) CMS devotes separate analysis to truck traffic by taking data from Illinois DOT regarding commercial vehicle traffic, CATS identified the routes most heavily used by trucks, estimated commercial vehicle miles traveled, and compared the totals year-by-year as well as county-by-county.

Source: CORE MPO CMP Update Study Team

2.2 Recommended Performance Measures

For the 2009 CMP Update, the use of the 2004 CMS performance measures (CI and approach LOS) are recommended for continued use as part of the CORE MPO CMP, where appropriate. Although the 2009 Update did not include an update to the regional roadway field data (travel time runs) that was collected in 2004, the same methodologies and measures utilized in the 2004 report are recommended for future use by the CORE MPO to continue to monitor and assess regional congestion.

In addition to the use of quantitative performance measures, (CI and approach LOS), the use of qualitative measures is also recommended for select areas based upon specific constraints. Specifically, the need for context sensitive solutions along the amenity corridors within the CORE MPO region requires improvements that will also include land use and design enhancements to improve mobility. For these locations where roadway widenings are not feasible, the CORE MPO recommends context sensitive qualitative performance measures, including:

- Preservation of regional mobility through the implementation of alternative access improvements to enhance local mobility;
- Implementation of sustainable development through the incorporation of mixed-use, pedestrian-oriented design that helps to minimize trip length;
- Promotion of multimodal connectivity through the implementation of transit, bicycle and pedestrian enhancements.

3.0 Congestion Management Strategy Development and Analysis

A primary goal of the CORE MPO CMP Update is to identify a set of strategies and tools that can aid in alleviating congestion in various locations throughout the MPO. In particular, two types of strategies have been identified that can each be applied to the CORE MPO planning area: 1) strategies that address traffic operational improvements, and 2) strategies that take a system-wide or "big picture" approach. The following sections expand on these strategies by presenting a case study for each strategy. These case studies identify ways to implement congestion management tools in their particular study areas, but the tools can also be applied to other locations throughout the region. The recommendations presented in this section will seek to preserve and enhance the existing system while contributing to the development of a safe and more efficient transportation network.

3.1 Congestion Management through Traffic Operational Improvements – Case Study: Victory Drive Hot-Spot Analysis

As part of the CMP Update, RS&H was asked to evaluate both short and long term alternatives in the area surrounding the new Home Depot shopping center on Victory Drive near Skidaway Road. The Victory Drive corridor near the Truman Parkway interchange is considered a "hot-spot" because it is a major east-west corridor experiencing much recent growth and redevelopment and localized congestion. The Victory Drive corridor in this area is also constrained as it is classified as a "transportation amenity corridor" because it is a memorial to veterans of World War I, a canopy road and also a community gateway. The purpose of this case study is to examine the existing conditions of and identify congestion management strategies for this area, the characteristics of which can be found in many other parts of the Savannah metropolitan area. The strategies developed through this case study can be applied to other locations that experience similar congestion issues.

Initially, at the brainstorming session on March 12, 2008 held between members of CORE MPO staff and RS&H staff, issues and opportunities were identified along Victory Drive and other similar corridors within the MPO. The lists below identify those that were named. Each of these issues and opportunities were taken into consideration as the Victory Drive case study was conducted, and as strategies were considered for similar corridors in the Savannah region.

Issues Identified for Victory Drive and Other Corridors in the Region:

- Corridor lacks vision;
- Lack of design standards along historic corridors;
- Congestion;
- Poor operations;
- Vehicle and pedestrian safety;
- Suburban-type strip development;
- Transit service;
- Maintain historicity and "uniqueness" of Victory Drive;
- Evacuation route;
- Need to be good stewards of perpetuating the Savannah vision;
- H.S. Truman interchange is out of context;
- Designation of facility;
- Canopy is both a constraint and an asset;
- Lack of future land use plan;

- Facility access for developers;
- Existing and future redevelopment pressures;
- Lack of east-west alternative;
- Traffic mix- commuter, local, and signature route;
- Corridor is a "work horse and a show horse".

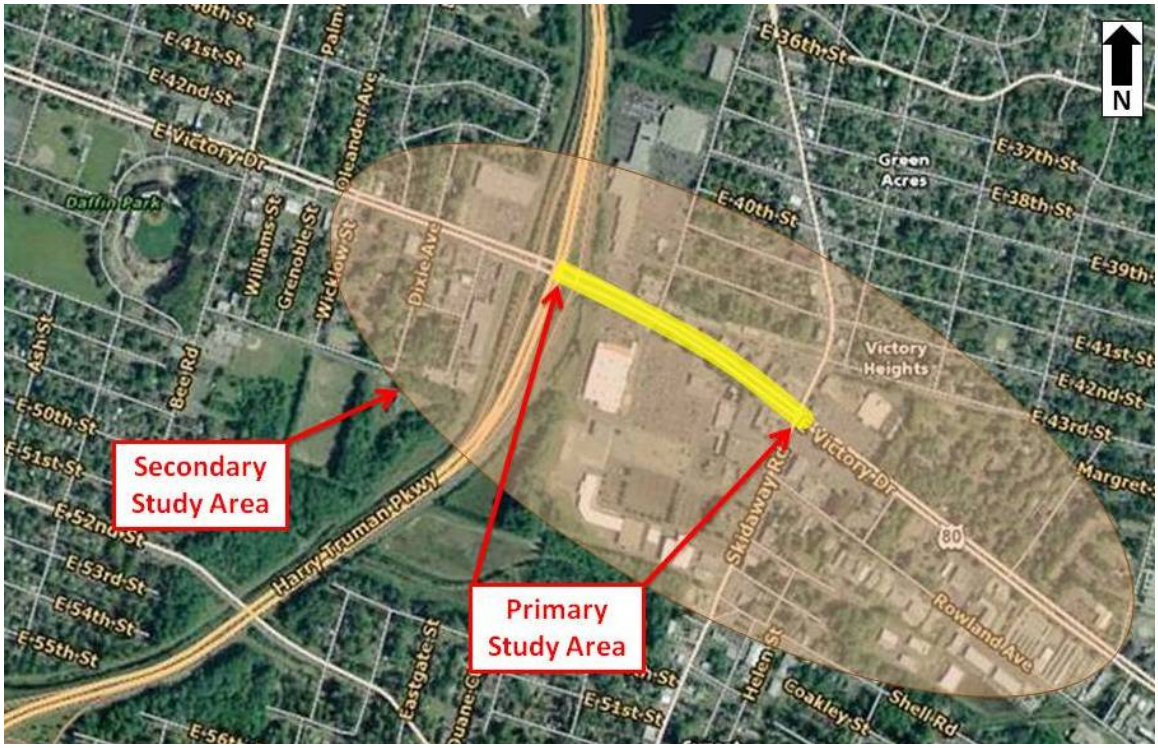
Opportunities Identified for Victory Drive and Other Corridors in the Region:

- Victory Drive is a signature corridor;
- Glorious old oaks reflect historicity of corridor;
- Historicity;
- A gateway from H.S. Truman Parkway;
- Embodies spirit of most of canopy roads in the Amenities Plan;
- Preservation/enhancement of corridor context;
- Redevelopment opportunities;
- More multimodal and pedestrian access;
- Truman bicycle/pedestrian trail;
- Acceptable congestion levels are defined;
- Restoration of grid network;
- Access to commercial properties from Rowland Avenue;
- Use of transportation network to foster more urban-type development; and
- Support community aspirations.

The evaluation along the Victory Drive corridor extends from the Truman Parkway interchange to Skidaway Road, as shown in Figure 3. Victory Drive has been identified in the MPO's Transportation Amenities Plan and the 2004 CMS as a constrained corridor due to its canopy of large, old trees, yet this is an area of active commercial redevelopment. In addition, there is an existing Georgia Department of Transportation (GDOT) project planned for this area. The GDOT Concept Report for this planned project includes a restriping of the northbound off-ramps from Truman Parkway to include two right turn lanes and the extension of the southbound left turn lane at Wallin Street. The signals at Truman Parkway will also be upgraded. As part of this CMP Update, CORE MPO staff and the City of Savannah Traffic Engineer have coordinated with RS&H to build on this existing planned project to develop a vision plan for this area. This vision plan includes strategies to address existing and anticipated congestion through horizon year 2030 using context sensitive solutions that support desired development patterns.

The following sections examine the existing and future traffic operational conditions of the Victory Drive corridor, as well as alternatives for transportation improvements. Following the analysis of these alternatives, recommendations are presented for congestion alleviation along Victory Drive. The recommended strategies include tools that can be applied to similar hot-spot locations across the region. The performance measures identified in Section 2.2 including the context-sensitive performance measures will be utilized along the Victory Drive corridor (and other similar constrained locations across the region) to help reduce congestion and enhance mobility.

Figure 3. Study Area: Victory Drive Hot-Spot Analysis



Source: Mapquest; CORE MPO CMP Update Team

3.1.1 Existing Conditions

Victory Drive within the identified study area is a four-lane divided highway with a landscaped median. This portion of the corridor is characterized by "big-box" development, including a Home Depot, a Target and a Staples department store that has recently opened. Several other small businesses and shopping centers line the corridor, with multiple entrance/exit driveways along much of the roadway.

At the beginning of the study, it was determined that updated traffic counts and turning movements in the area were needed to adequately analyze the traffic conditions. RS&H met with MPC staff to determine the appropriate locations for these counts; the proposed count locations were also sent to the City staff for review. The traffic data was collected after the opening of the large retail shopping center in October 2007. In addition to weekday counts, Saturday counts were also collected due to the weekend traffic associated with the businesses at the shopping center. These detailed intersection traffic counts were used to build a corridor-level Synchro© traffic microsimulation model for the area. The Synchro© traffic analysis and modeling can be found in Appendix B.

Table 4 shows the results of the existing LOS and capacity analysis. Traffic flow through an intersection is affected by the volume of traffic, intersection geometry, and type of traffic control. These intersection-specific characteristics are used to define two measures of congestion: average delay (seconds) per vehicle and LOS. At intersections with traffic signals, six levels of service, from A to F, are related to vehicle delay. LOS A represents no congestion, while LOS F represents excessive delays with vehicles having to wait several signal cycles to clear an intersection.

The volume-to-capacity ratio (v/c ratio) is a measurement of roadway travel performance. It is calculated by dividing the demand flow rate by the capacity for a traffic facility. The demand flow rate is the number of vehicles passing a point on a lane or roadway during some time interval. The capacity is the maximum rate of flow of the roadway under ideal conditions. The v/c ratio is typically measured on critical peak hours (AM and PM).

Table 4 shows that overall intersection LOS conditions at levels D, E or F currently exist at the following intersections:

- Victory Drive at Truman NB Ramps
- Victory Drive at Wallin Road
- Victory Drive at Skidaway Road
- Victory Drive at Whatley Avenue

Additional traffic data and analysis documentation can be found in Appendix B.

Table 4. Existing Conditions - Victory Drive Level-of-Service and Capacity

Intersection	Traffic Controller	Traffic Movement		Level-of-Service		Volume-to-Capacity Ratio	
				AM Peak	PM Peak	AM Peak	PM Peak
Victory Drive at Truman SB Ramps	Signalized Intersection	Overall Intersection		C	C	N/A	N/A
		Eastbound	T	C	B	0.32	0.32
			R	A	A	0.21	0.20
		Westbound	L	C	E	0.88	0.88
			T	A	A	0.33	0.35
		Southbound	L	E	E	0.20	0.49
			R	C	C	0.24	0.30
Victory Drive at Truman NB Ramps	Signalized Intersection	Overall Intersection		C	F	N/A	N/A
		Eastbound	L	C	E	0.13	0.26
			T	B	C	0.27	0.42
		Westbound	T	A	A	0.44	0.40
			R	A	A	0.10	0.12
		Northbound	L	D	D	0.28	0.17
			R	F	F	1.12	1.75
Victory Drive at Wallin Road	Signalized Intersection	Overall Intersection		D	C	N/A	N/A
		Eastbound	L	E	E	0.66	0.79
			T	A	B	0.46	0.66
			R	A	A	0.15	0.28
		Westbound	L	E	E	0.22	0.40
			TR	D	D	0.99	0.74
		Northbound	L	D	E	0.44	0.82
			TR	C	D	0.08	0.35
		Southbound	L	D	D	0.06	0.24
			TR	C	E	0.68	0.85
Victory Drive at	North-South	Overall Intersection		N/A	N/A	N/A	N/A

Intersection	Traffic Controller	Traffic Movement		Level-of-Service		Volume-to-Capacity Ratio	
				AM Peak	PM Peak	AM Peak	PM Peak
Shopping Center Entrance/Exit	**Stop**	**Northbound**	R	B	C	0.03	0.34
Victory Drive at Skidaway Road	**Signalized Intersection**	**Overall Intersection**		D	D	N/A	N/A
		Eastbound	L	E	E	0.54	0.67
			T	C	D	0.46	0.85
			R	A	B	0.23	0.17
		Westbound	L	D	F	0.63	0.79
			T	D	D	0.82	0.60
			R	B	B	0.08	0.14
		Northbound	L	E	F	0.63	0.88
			TR	D	E	0.65	0.78
		Southbound	L	E	E	0.51	0.64
			TR	D	E	0.62	0.76
Victory Drive at Whatley Avenue	**Signalized Intersection**	**Overall Intersection**		D	C	N/A	N/A
		Eastbound	L	A	A	0.04	0.06
			TR	C	D	0.57	0.93
		Westbound	L	B	B	0.68	0.26
			TR	E	C	1.01	0.64
		Northbound	LT	D	D	0.46	0.58
			R	A	A	0.28	0.55
		Southbound	LTR	D	C	0.15	0.14
Rowland Avenue at Whatley Avenue	**East-WestStop**	**Overall Intersection**		N/A	N/A	N/A	N/A
		Eastbound	LTR	A	A	0.02	0.05
		Westbound	LTR	A	A	0.01	0.01
		Northbound	LTR	B	D	0.37	0.74
		Southbound	LTR	C	C	0.63	0.40
Skidaway Road at Rowland Avenue	**East-West Stop**	**Overall Intersection**		N/A	N/A	N/A	N/A
		Eastbound	LTR	E	F	0.03	0.02
		Westbound	LTR	F	F	0.69	0.87
		Northbound	LTR	A	A	0.01	0.01
		Southbound	L	A	B	0.10	0.06
Shopping Center Entrance/Exit at Skidaway Road	**East-West Stop**	**Overall Intersection**		N/A	N/A	N/A	N/A
		Eastbound	LTR	C	F	0.14	1.04
		Westbound	LTR	C	E	0.02	0.08
		Northbound	LTR	A	A	0.03	0.06
		Southbound	L	B	A	0.01	0.01
Shopping Center Entrance/Exit	**Signalized Intersection**	**Overall Intersection**		A	B	N/A	N/A
		Eastbound	LTR	A	C	0.13	0.47
		Westbound	LTR	B	C	0.01	0.01

Intersection	Traffic Controller	Traffic Movement		Level-of-Service		Volume-to-Capacity Ratio	
				AM Peak	PM Peak	AM Peak	PM Peak
at Skidaway Road		**Northbound**	L	A	D	0.04	0.38
			TR	A	B	0.34	0.67
		Southbound	TR	A	B	0.34	0.64

N/A = Not Applicable
Source: CORE MPO CMP Update Study Team

Existing development patterns in the Victory Drive / Truman Parkway vicinity is generally suburban-style commercial development characterized by large surface parking facilities in front of retail and numerous access points / driveways fronting Victory Drive and major side streets. There are few pedestrian, bicycle and transit amenities, and little inter-parcel access.

3.1.2 Alternatives Analysis

Once the existing conditions analysis was completed, the results were presented and discussed at a workshop held on November 9, 2007 with RS&H and City, MPO and GDOT staff. The primary purpose of the workshop was to develop short and long range alternative scenarios for analysis. The following short-term (2010) alternatives were identified:

- **Alternative 1:** At the intersection of Wallin Street and Victory Drive, change the Northbound and southbound approach left-turn traffic signalization to split-phase.
- **Alternative 2:** At the intersection of Wallin Street and Victory Drive, add a dual left-turning lane for the northbound approach (exiting the shopping center).
- **Alternative 3:** At the intersection of Wallin Street and Victory Drive, prohibit the northbound left-turning movement and relocate it to the intersection of Victory Drive and the Aaron's Rents driveway. Also consider a roundabout, jug-handle, traffic signal or other innovative similar treatment to facilitate the northbound left-turning traffic and improve the traffic flow entering and exiting the shopping center.
- **Alternative 4:** Conduct a signal warrant analysis at the Skidaway Road/Rowland Avenue intersection (requested by the City of Savannah).

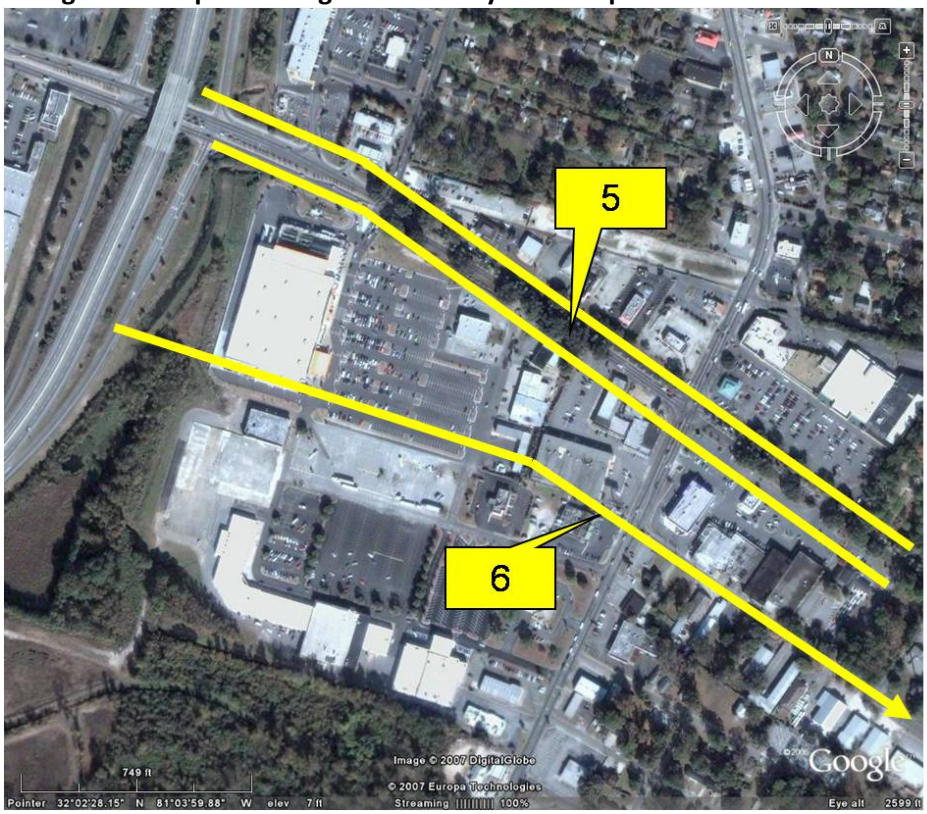
Figure 4. Proposed Short-Term Victory Drive Improvement Alternatives

Source: CORE MPO CMP Update Study Team

The following long-term (2030) alternatives were identified:

- **Alternative 5:** Implement a frontage road system on the south side of Victory Drive, including a slip ramp from the northbound exit ramp of Truman Parkway directly into the adjacent shopping center. Extend this connection west of Truman Parkway, if feasible.
- **Alternative 6:** Improve Rowland Avenue so that it serves as a bypass to the Victory Drive corridor.

Figure 5. Proposed Long-Term Victory Drive Improvement Alternatives



Source: CORE MPO CMP Update Study Team

Short-Term (2010) Alternatives Analysis

The intersection of Victory Drive and Wallin Street, as described by alternatives 1 and 2, were analyzed together using Synchro©/SimTraffic. Analysis of the 2010 No Build Condition, in which no improvements are made, indicated that the northbound approach has a maximum queue length of 415 feet, with an average queue length of 175 feet. Next the Build Conditions were analyzed: the northbound and southbound left-turn treatment was changed from Protected to Split, and two left-turn lanes were provided for the northbound left-turn movement, with 125 feet of storage. With these two improvements, the northbound approach maximum queue length is reduced to 230 feet, with an average queue of 140 feet. This reduction in queue length would facilitate improved flow and better parking lot access for the vehicles entering the shopping center at this intersection. Further analysis of the left-turn treatments showed that the reduction in queue is not actually a result of the change in left-turn treatments, but is the result only of the dual left-turn lanes. Finally, by extending the storage length from 125 feet to 150 feet, the maximum and average queues for the northbound approaches would be 180 and 100 feet, respectively. **Table 5** and **Figure 7** depict the queue lengths and the impacted area internal to the shopping center as described by alternatives 1 and 2.

Table 5. Shopping Center Northbound Approach Queue Lengths, Associated with Alternatives 1 and 2: Intersection of Victory Drive and Wallin Street

Alternative	Maximum Queue Length	Average Queue Length
No Build	415 feet	175 feet
Alternative 1	230 feet	140 feet
Alternative 2	180 feet	100 feet

Source: CORE MPO CMP Update Study Team

Figure 6. Shopping Center Queue Lengths Associated with Alternatives 1 and 2

Source: CMP Update Study Team

It was determined that Alternative 3 is not a feasible option because a sight distance issue is created by the large live oak trees adjacent to Victory Drive. This alternative would also require a median cut at the eastern entrance to the shopping center, which would be impractical. Each of the innovative intersection treatments initially identified for this location would not be effective due to these constraints. Additionally, a new signal would be required, which is not feasible due to the proximity of the existing signals on Victory Drive. Alternative 3 was discounted for these reasons.

Figure 7. Sight Distance Issues at Victory Drive/Walling Street: Live Oak Trees

Source: CORE MPO CMP Update Study Team

For Alternative 4, a signal warrant analysis was performed at the intersection of Skidaway Road and Rowland Avenue to determine the need for a signal. As presented in the 2007 Existing Conditions analysis from the 2004 CMP, traffic volume on Rowland Avenue either approaches or exceeds the roadway capacity limits at its intersection with Skidaway Road during the AM and PM peak hours. The analysis concluded that four of the eight warrants are met for installing a traffic signal at this intersection, including:

- Warrant 1: Eight-hour vehicular volume,
- Warrant 2: Four-hour vehicular volume,
- Warrant 6: Coordinated Signal System, and
- Warrant 8: Roadway Network.

The results of the signal warrant analysis were provided to the City and to MPC staff on December 14, 2007. The details can be found in Appendix B.

Long-Term (2030) Alternatives Analysis

For Alternative 5, a frontage road system would be implemented from the northbound off-ramp of Truman Parkway to the east along Victory Drive. A slip ramp from Truman Parkway would exit adjacent to the shopping center, providing direct access parallel to Victory Drive in addition to along Victory Drive itself. This frontage system would terminate on the east by merging back onto Skidaway Drive, diverting

the shopping center traffic from Victory Drive. The creation of this frontage road system would thereby create an "urban boulevard" in this heavily-traveled area. Figure 9 depicts this alternative.

Figure 8. Proposed Frontage Road, Alternative 5

Source: Google; CORE MPO CMP Update Study Team

The results show that Alternative 5 (designated Scenario 1) would likely remove a moderate amount of traffic volumes from Victory Drive between the northbound ramps and Home Depot Entrance. Table 6 presents a summary of this analysis. The analysis also indicates that Scenario 1 would also help to provide more green time to the eastbound Victory Drive movement at the Wallin Street intersection by moving the westbound left turn movement to the Skidaway Road signal. Based upon these improvements, traffic operations along Victory Drive would have moderate improvement.

Table 6. 2030 Conditions PM Peak Hour – Victory Drive Area, Intersection Capacity Analysis Results

Intersection	Traffic Controller	Traffic Movement		2030 No Build Conditions		2030 Build Conditions Scenario 1	
				Level of Service	Volume-to-Capacity Ratio	Level of Service	Volume-to-Capacity Ratio
Victory Drive at Truman SB Ramps	**Signalized Intersection**	**Overall Intersection**		D	N/A	D	N/A
		Eastbound	T	B	0.39	B	0.39
			R	A	0.25	A	0.25
		Westbound	L	**F**	**1.08**	**F**	**1.08**
			T	A	0.43	A	0.43
		Southbound	L	**E**	0.60	**E**	0.60
			R	C	0.34	C	0.34
Victory Drive at Truman NB Ramps	**Signalized Intersection**	**Overall Intersection**		B	N/A	C	N/A
		Eastbound	L	**E**	0.31	**E**	0.31
			T	C	0.51	C	0.51
		Westbound	T	B	0.51	B	0.51
			R	A	0.15	A	0.15
		Northbound	L	D	0.41	D	0.41
			R	A	0.50	D	**0.93**
Victory Drive at Wallin Road	**Signalized Intersection**	**Overall Intersection**		**E**	N/A	D	N/A
		Eastbound	L	**E**	0.81	**E**	0.81
			T	**E**	0.84	D	0.78
			R	A	0.35	N/A	
		Westbound	L	**E**	0.46	N/A	
			TR	**E**	**1.00**	D	0.34
		Northbound	L	D	0.57	**E**	0.63
			TR	**E**	0.43	**E**	0.63
		Southbound	L	D	0.25	N/A	
			TR	**F**	**0.92**	B	0.56
Frontage Road at Shopping Center Exit	**North-South Stop**	**Overall Intersection**		N/A		N/A	
		Northbound	R	N/A		B	0.19
Victory Drive at Skidaway Road	**Signalized Intersection**	**Overall Intersection**		**F**	N/A	**F**	N/A
		Eastbound	L	**E**	0.73	**E**	0.73
			T	**F**	**1.11**	**F**	**1.11**
			R	B	0.22	B	0.22
		Westbound	L	**F**	**0.93**	**F**	**1.17**
			T	D	0.81	D	0.81
			R	B	0.19	B	0.19
		Northbound	L	**F**	**1.08**	**F**	**1.08**
			TR	**E**	**0.91**	**E**	**0.91**
		Southbound	L	**F**	0.74	**F**	0.74
			TR	**E**	0.85	**E**	0.85
Victory Drive at	**Signalized**	**Overall Intersection**		**E**	N/A	**E**	N/A

Intersection	Traffic Controller	Traffic Movement		2030 No Build Conditions		2030 Build Conditions Scenario 1	
Whatley Avenue	**Intersection**	**Eastbound**	L	A	0.08	A	0.08
			TR	**F**	**1.14**	**F**	**1.14**
		Westbound	L	B	0.31	B	0.31
			TR	C	0.79	C	0.79
		Northbound	LT	**E**	0.74	**E**	0.74
			R	B	0.69	B	0.69
		Southbound	LTR	C	0.17	C	0.17
Rowland Avenue at Whatley Avenue	**East-WestStop**	**Overall Intersection**		N/A		N/A	
		Eastbound	LTR	A	0.08	A	0.08
		Westbound	LTR	A	0.67	A	0.67
		Northbound	LTR	C	0.01	C	0.01
		Southbound	LTR	**E**	0.01	**E**	0.01
Skidaway Road at Rowland Avenue	**East-West Stop**	**Overall Intersection**		N/A	N/A	N/A	N/A
		Eastbound	LTR	**F**	0.05	**F**	0.06
		Westbound	LTR	**F**	**1.70**	**F**	**1.78**
		Northbound	LTR	B	0.01	B	0.01
		Southbound	L	B	0.09	B	0.09
Shopping Center Entrance/Exit at Skidaway Road	**East-West Stop**	**Overall Intersection**		N/A		N/A	
		Eastbound	LTR	**F**	**2.39**	**F**	**2.61**
		Westbound	LTR	**F**	0.24	**F**	0.28
		Northbound	LTR	B	0.08	B	0.09
		Southbound	L	B	0.01	B	0.01
Shopping Center Entrance/Exit at Skidaway Road	**Signalized Intersection**	**Overall Intersection**		C	N/A	C	N/A
		Eastbound	LTR	C	0.51	C	0.51
		Northbound	L	D	0.45	D	0.45
			TR	C	0.83	C	0.83
		Southbound	TR	C	0.80	C	0.86
Piggly Wiggly Entrance/Exit at Victory Drive	**Signalized Intersection**	**Overall Intersection**		C	N/A	C	N/A
		Eastbound	L	A	0.03	A	0.03
			TR	D	0.68	D	0.68
		Westbound	L	A	0.09	A	0.09
			TR	A	0.50	A	0.50
		Northbound	L	**E**	0.57	**F**	0.57
			TR	C	0.20	C	0.20
		Southbound	L	**E**	0.18	**E**	0.18
			TR	D	0.09	D	0.09

N/A – Not Applicable **Bold**, Gray = Failing

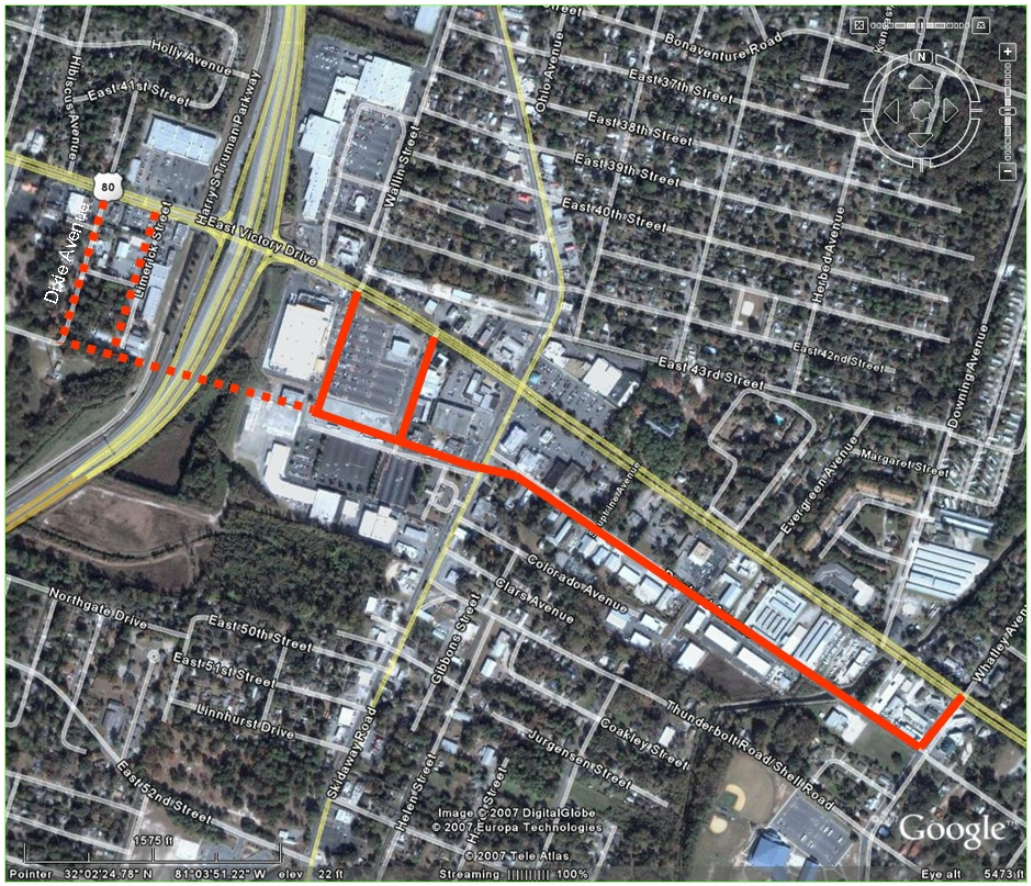
Source: CORE MPO CMP Update Study Team

Alternative 6 consists of several improvements to Rowland Avenue in the area of the Blockbuster/Rite Aid strip mall, to help divert traffic from Victory Drive. Specific improvements under this alternative

include the widening of Rowland Avenue to four lanes with improvements to surrounding intersections. These intersection improvements would be implemented in a way that promotes the use of Rowland Avenue as a bypass to Victory Drive.

Alternative 6 included an assessment of several bypass alternatives using the regional travel demand models as a tool. Two models were utilized by RS&H staff: the model used for the Adopted 2004 financially-constrained LRTP Update, and the Chatham County Interstate Study (CCIS) model. Figure 9 presents an overview of the "Rowland Avenue Extension/Victory Drive Reliever" that was tested using the travel demand model, extending west from Rowland Avenue and connecting to Kerry Street west of Truman Parkway. The proposed extension/reliever would be designed to pass through the space between the new Target and Home Depot shopping centers (approximately 80 feet apart).

Figure 9. Conceptual Layout of Victory Drive Bypass, Alternative 6



Source: CORE MPO CMP Update Study Team

Several combinations of alternatives were tested using the various travel demand models, including:

- Two-way ramp connection to the parallel reliever;
- One-way ramp connection to the parallel reliever;
- Parallel reliever as an overpass / flyover (not connecting to Truman Parkway Ramps); and

- Parallel reliever as both a two-lane and as a four-lane facility.

The results of the analyses are summarized on Table 7. Additional details, methodologies, model output screen captures and results are presented as Appendix B of this report.

Table 7. Summary of CORE MPO 2030 Constrained Model Results

	2030 Base Scenario	RSH 2030 with Two-Way Ramp Connection		RSH 2030 with Parallel Reliever as Overpass		CUTS Staff Analysis[7] 2030	
	Original 2030 CUTS Constrained model	with Rowland Ave added and extended as **2-lane** road	with Rowland Ave added and extended as **4-lane** road	with Shell Rd extended	With Rowland Ave added and extended	with interim ramp connection	with two-way ramp connection
Max daily two-way volume estimate on SR 80	43,430	37,600 (5,830 less than base)	35,000 (8,430 less than base)	40,410 (3,020 less than base)	40,180 (3,250 less than base)	39,950	31,500
Peak hour two-way volume estimate on SR 80	5,330	4,540 (790 less than base)	4,190 (1,140 less than base)	4,920 (410 less than base)	4,920 (410 less than base)	--	--
Reliever max daily volume	--	9,370 (two-way two lanes total)	18,300 (two-way four lanes total)	5,280 (two-way two lanes total)	4,990 (two-way two lanes total)	8,050 (two one-way lanes)	22,060 (two-way four lanes total)
Max peak hour two-way volume estimate on reliever	--	1,230	2,360	630	600	--	--

Source: CORE MPO CMP Update Study Team

[7] *CUTS Staff model utilized for analysis is different than the two models utilized by RS&H (model from the 2004 Adopted LRTP and the CCIS model)*

As presented in Table 7, with the two-lane reliever, the maximum two-way daily reduction is 5,830 vehicles. With a four-lane connector, the maximum two-way daily reduction is 8,430 vehicles. With the distance between the Target and Home Depot shopping centers of approximately 80 feet, constructing a four-lane reliever structure with adequate shoulders, and still leaving enough room on the ground to access the rear of the stores would be difficult. Construction of a two-lane reliever structure would be most feasible in regards to geometric constraints and spacing of the stores within the shopping center.

3.1.3 Short-range Improvements/Recommendations

The analysis described in the previous sections has led to the identification of several recommendations for improvements in the Victory Drive area of Savannah, as well as improvements that could be made throughout the CORE MPO region in similar locations. These recommendations are detailed in the following sections.

3.1.3.1 Recommendations for Victory Drive Corridor

Based on the findings of the alternatives analysis portion of the study, the following recommendations are made for the short term. It is anticipated that these recommendations, along with the current programmed GDOT projects of dual right turn-lanes from the northbound exit ramp of Truman Parkway onto Victory Drive and the extension of the eastbound left turn lane on Victory Drive at Wallin Street, will aid in alleviating congestion in the area.

1. Implement a dual left turn lane configuration for the westbound traffic exiting the shopping center at the Victory Drive intersection with Wallin Street.
2. Reconfigure Rowland Avenue at Skidaway Road to align with the entrance into the shopping center.
3. Install a signal at the new Rowland Avenue/Shopping Center entrance intersection identified in Recommendation #2 above.
4. Work with the shopping center property owners to close off the northernmost entrance bay in the parking lot by the Wallin Street entrance. This is required to allow enough vehicle storage in the dual left turn-lane bays.

The realignment of Rowland Avenue (recommendation #2) will work more efficiently both in the short term and in the long term regardless of other recommended alternatives. The new alignment consolidates two intersections and provides parallel capacity to Victory Drive directly from the shopping center.

3.1.3.2 Recommendations for CORE MPO Region

There are multiple locations in the CORE MPO region that suffer from many of the same issues that the Victory Drive corridor faces. For this reason, the recommendations made for Victory Drive have been evaluated and generalized so that they can be applied to many other locations in the CORE MPO region. Table 8 below presents the alternatives evaluated for the Victory Drive corridor and corresponding congestion mitigation measures that can be implemented across the CORE MPO. Additionally, Table 9 presents policy recommendations that can aid in the implementation of these congestion mitigation measures.

Table 8. Congestion Mitigation Measures for Implementation Across CORE MPO

Victory Drive Recommendations	Potential Congestion Mitigation Measure for Implementation Across CORE MPO
Implement split-phasing for traffic signal	Optimize signal timing at intersections to maximize signal effectiveness
Implement dual left turn lane configuration at Wallin St. intersection	Assess & implement effective intersection operation improvements requiring minimal funding and right of way
Relocate left-turning movement from Wallin St. to Aaron Rents driveway	Implement access management strategies that allow more efficient flow of traffic from roadways to surrounding parcels
Improve shopping center entering and exiting traffic flow with a roundabout, jug handle, or traffic signal	Utilize innovative intersection treatments to improve operations & enhance character of corridors
Conduct signal warrant analysis at Skidaway Rd/Rowland Ave intersection	Perform signal warrant analysis to determine intersections in need of signals in order to improve intersection and corridor operations
Implement a frontage road system from Truman Pkwy along the south side of Victory Dr.	Seek opportunities to improve connections from limited access highways directly to activity centers, such as shopping centers or historical sites
Reconfigure Rowland Ave./Shopping center entrance	Provide effective street hierarchy other than arterials (e.g., a grid) that provides alternatives to mobility

Source: CORE MPO CMP Update Study Team

Table 9. Policy Considerations for Congestion Mitigation in CORE MPO

Policy	Actions Involved
Review New Developments & Redevelopments	Ensure sufficient capacity on adjacent roadways (through CORE MPO Traffic Impact Assessment Review Process). Include a review of operations, access, and safety.
Partner with Private Sector to Enhance Mobility	Review of site applications should include a discussion/evaluation of existing and projected traffic congestion as well as implementation of transportation improvements.

Policy	Actions Involved
Coordinate with Comprehensive Plans	Ensure that comprehensive plans include provisions highlighting areas of localized congestion & tools/strategies to assist with managing new and redevelopments that may worsen congestion

Source: CORE MPO CMP Update Study Team

3.1.4 Long-range Improvements/Recommendations

At the conclusion of the alternative analysis portion of this case study, long-term recommendations were considered. As discussed earlier, the frontage road system would provide some moderate benefit to Victory Drive.

The development of a bypass / reliever (parallel to Victory Drive) would also have moderate benefit to Victory Drive, by diversion of some local trips destined for the Home Depot / Target commercial developments. Specifically, the reliever (as a two-lane facility) would remove approximately 5,800 vehicles per day from Victory Drive, which is equivalent approximately one (1) lane on Victory Drive. Several alternatives associated with a parallel Victory Drive reliever were assessed. These included: 1) a full-grade separated flyover across Truman Parkway and, 2) the addition of a slip ramp from the Truman Parkway northbound off-ramp exiting into a new roadway (through the Home Depot / Target property) connecting into Rowland Avenue to the east. Alternative 2 (slip ramp with new connection to Rowland Avenue) is recommended to obtain the greatest benefit in traffic relief from Victory Drive from the least intrusive and costly improvement of the two evaluated. Further detailed engineering analysis is required to fully assess the geometric and traffic operational details required to implement this improvement. Further, discussions with the private land owners will also need to take place prior to advancing this concept further in the CORE MPO regional planning process.

Other alternatives were also considered and evaluated including adding a triple-left turn lane at the westbound Victory Drive approach to the southbound Truman Parkway on-ramps. According to the traffic modeling analysis, triple left-turn lanes would help to improve the LOS. However, triple left-turns often cause many issues with lane utilization, and actually "real life" operations are generally much different from what the traffic simulation model depicts. Generally, drivers tend to use the continuous left-turn lane versus a left-turn lane that will drop (merge) at some short distance (i.e. 500 to 2,000 feet). Additionally, to provide adequate space for the additional left-turn lane for this movement, the southbound Truman Parkway on-ramp would need to be widened. For these reasons, the additional (third) left-turn lane is not recommended.

Widening of Victory Drive has also been disregarded due to the impacts it would have to the character and tree canopy along the roadway. However, from purely a traffic movement perspective, the addition of one lane in each direction (creating a six-lane roadway) with dual left lanes for all westbound Victory Drive left-turn movements would improve the LOS to a "D" at each intersection along Victory Drive.

Future land use and urban design enhancements are also proposed for the study area. As discussed in Section 2.2, there is an eminent need to reduce trips and enhance multimodal travel opportunities within the Victory Drive corridor (and all other constrained corridors in the CORE MPO region). This need will grow with increasing regional population and employment within the region. Future land use changes are recommended to meet the context sensitive measures identified, including:

- Preservation of regional mobility through the implementation of alternative access improvements to enhance local mobility;

  Recommendations for CORE MPO Region:

  - *Identify key constrained corridors, and implement detailed access management studies to identify corridor level improvements, including the potential improvements to parallel facilities that enhance both regional and local mobility;*
  - *Develop CORE MPO regional thoroughfare plan incorporating recommendations from individual corridor access management studies;*
  - *Develop overlay ordinances with access management requirements for applicable constrained corridors; and*
  - *Implement improvements, and monitor traffic operations along constrained corridors through future CORE MPO CMP updates.*

- Implementation of sustainable development through the incorporation of mixed-use, pedestrian-oriented design that helps to minimize trip length;

  Recommendations for CORE MPO Region:

  - *Identify major land areas along constrained corridors to identify potential needs to the future land use map, including the potential of overlay districts in specific areas;*
  - *Implement recommended development (as market conditions permit), and monitor traffic operations along constrained corridors through future CORE MPO CMP updates*

- Promotion of multimodal connectivity through the implementation of transit, bicycle and pedestrian enhancements.

  Recommendations for CORE MPO Region:

  - *Adopt "Complete Streets" design ordinance and implement through the constrained corridor overlay districts;*
  - *Include specific multimodal transportation enhancements in all future projects within and adjacent to constrained corridors;*
  - *Monitor traffic operations along constrained corridors through future CORE MPO CMP updates, and consider implementation of Multimodal Transportation Districts (similar to the model developed by the Florida Department of Transportation – Office of Systems Planning).*

3.2 Congestion Management through Traffic Operational Improvements – Case Study: SR 21 Hot Spot Analysis

The SR 21 corridor is one of the major routes connecting the Port of Savannah to I-95. As such, there are heavy truck movements along the corridor that are fully exacerbated by the numerous light industrial land uses present along the corridor. At part of the CMP Update, a portion of SR 21 was evaluated to identify existing deficiencies to determine potential short-term improvements along the corridor. Long-term improvements for the corridor are being evaluated as part of the State Road and

Tollway Authority's (SRTA) Savannah Northwest Toll Expressway Study; therefore, a long term analysis of future conditions was not completed as part of this analysis.

After discussions with MPC staff, traffic counts were collected in October 2007 at the following study intersections along SR 21, also shown on Figure 10:

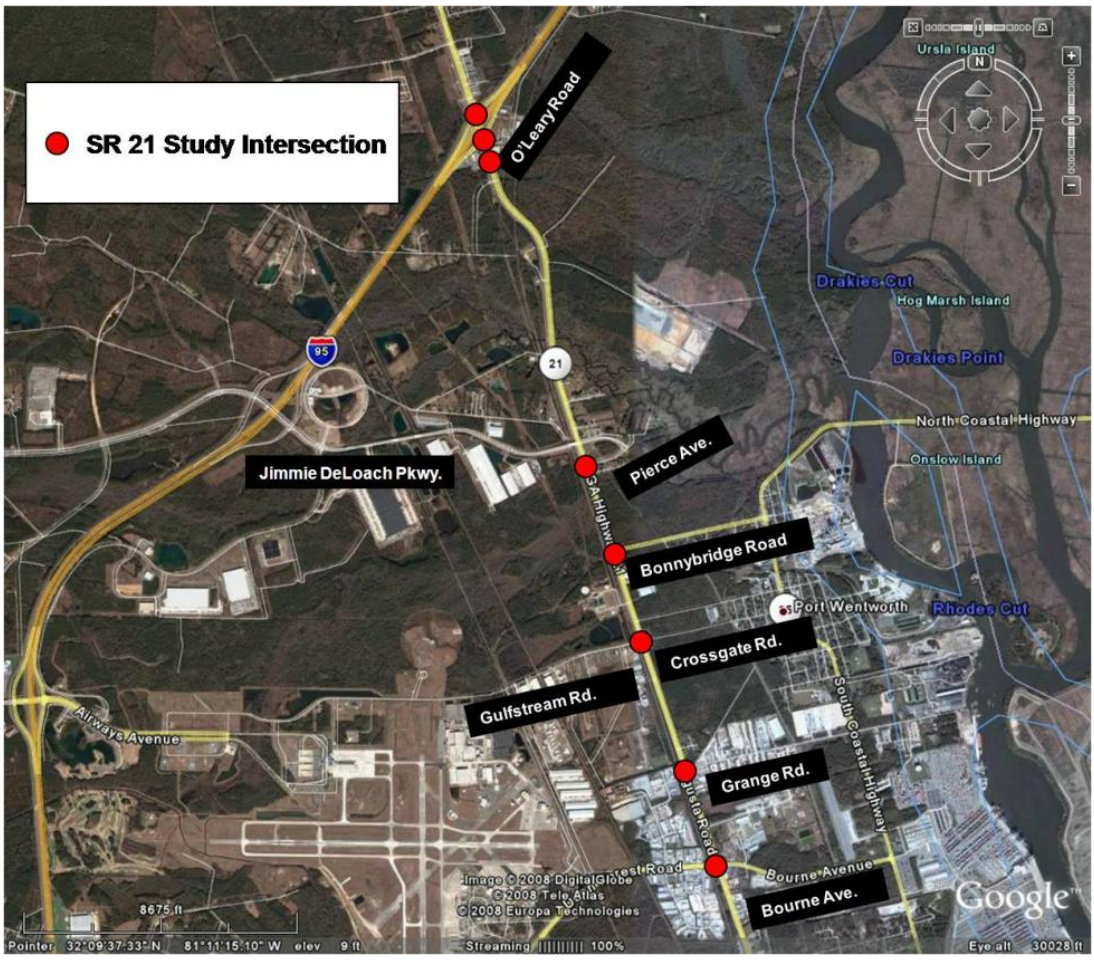
- I-95 southbound ramps
- I-95 northbound ramps
- O'Leary Road
- Pierce Ave/Jimmy DeLoach Parkway
- Bonnybridge Road
- Gulfstream Road / Crossgate Road
- Grange Road
- Bourne Avenue

These detailed intersection traffic counts were used to build a corridor-level Synchro© traffic microsimulation model for the study area. Table 10 shows the results of the existing LOS and capacity analysis for the SR 21 corridor, which are also summarized below.

1. The northbound SR 21 through movement (at the I-95 SB ramps) queue is about 450 feet. This movement's average queue is only 100 feet with Level of Service C or better indicating a satisfactory traffic flow.
2. The northbound SR 21 through movement (at Bonnybridge Road) queue is about 750 feet, indicating a congestion problem (about 1,500 vph).
3. The northbound SR 21 through movement (at Gulfstream Road) queue is about 950 feet, indicating a congestion problem (about 1,300 vph). The back-up from this movement is also causing congestion for the northbound SR 21 left- and right turning movements at this intersection.
4. The eastbound Bourne Avenue through movement (at SR 21) queue is about 800 feet. However, the simulation indicates that this back-up is actually caused by the eastbound Bourne Avenue left-turning movement. During about 50% of the PM Peak hour, the eastbound left-turning movement blocks the through movement lanes by exceeding the provided storage length.
5. The northbound SR 21 left-turn movement (at Bourne Avenue) queue is about 500 feet, indicating a congestion problem. However, the storage length for this movement is 565 feet and hence is not negatively impacting the through movement.
6. The northbound SR 21 through movement (at Bourne Avenue) queue is about 750 feet, indicating a congestion problem (about 1,200 vph).

Additional traffic data and analysis documentation can be found in Appendix B.

Figure 10. SR 21 Study Area Intersections



Source: CORE MPO CMP Update Study Team

Table 10. Existing Conditions: SR 21 Level of Service and Capacity (PM Peak Hour)

Intersection	Traffic Controller	Traffic Movement		Level of Service	Volume-to-Capacity Ratio	Maximum Queue	Average Queue
SR 21 at I-95 SB Ramps	Signalized Intersection	**Overall Intersection**		C	N/A	N/A	N/A
		Westbound	L	**E**	0.35	152	71
		Northbound	L	D	0.62	244	90
			T	C	**0.91**	**389**	100
		Southbound	T	B	0.18	156	30
			R	A	0.50	182	48
SR 21 at I-95 NB Ramps	Signalized Intersection	**Overall Intersection**		F	N/A	N/A	N/A
		Eastbound	L	F	1.71	1700	1700
		Northbound	T	B	0.39	210	99
			R	A	0.14	77	4

Intersection	Traffic Controller	Traffic Movement		Level of Service	Volume-to-Capacity Ratio	Maximum Queue	Average Queue
		Southbound	L	**E**	0.52	129	47
			T	A	0.30	181	66
SR 21 O'Leary Road	**Signalized Intersection**	**Overall Intersection**		C	N/A	N/A	N/A
		Eastbound	TL	**E**	0.80	269	147
			R	A	0.35	175	67
		Westbound	TL	**E**	0.61	171	71
			R	A	0.27	119	40
		Northbound	L	**E**	0.41	164	61
			T	B	0.45	**318**	133
			R	A	0.12	182	22
		Southbound	L	**E**	0.25	80	23
			T	B	0.36	194	62
			R	A	0.08	34	5
SR 21 at Pierce Avenue	**Signalized Intersection**	**Overall Intersection**		B	N/A	N/A	N/A
		Westbound	L	D	0.57	156	86
			R	B	0.03	14	3
		Northbound	T	B	0.65	**342**	160
			R	A	0.47	144	66
		Southbound	L	D	0.17	65	18
			T	A	0.30	146	54
SR 21 at Bonnybridge Road	**Signalized Intersection**	**Overall Intersection**		B	N/A	N/A	N/A
		Westbound	L	D	0.21	232	47
			R	B	0.68	**382**	181
		Northbound	T	B	0.70	690	266
			R	A	0.06	203	23
		Southbound	L	B	0.54	190	83
			T	A	0.34	206	84
SR 21 Gulfstream/Crossgate Road	**Signalized Intersection**	**Overall Intersection**		D	N/A	N/A	N/A
		Eastbound	LT	**E**	0.68	**391**	183
			R	B	0.41	195	63
		Westbound	LT	**E**	0.57	219	107
			R	B	0.45	133	65
		Northbound	L	**E**	0.67	**394**	166
			T	D	0.87	1000	**492**
			R	B	0.13	**393**	61
		Southbound	L	**E**	0.40	132	54
			T	D	0.58	**471**	221
			R	B	0.07	142	20
SR 21 at Grange Road	**East-West Stop**	**Overall Intersection**		N/A	N/A	N/A	N/A
		Westbound	LR	F	2.77	N/A	N/A

Intersection	Traffic Controller	Traffic Movement		Level of Service	Volume-to-Capacity Ratio	Maximum Queue	Average Queue
		Northbound	L	B	0.01	N/A	N/A
		Southbound	L	D	0.14	N/A	N/A
SR 21 at Bourne Avenue	**Signalized Intersection**	**Overall Intersection**		D	N/A	N/A	N/A
		Eastbound	L	**F**	0.81	200	183
			T	**E**	0.27	**800**	**441**
			R	B	0.68	190	143
		Westbound	L	**F**	0.57	210	85
			T	**F**	0.66	281	135
			R	B	0.56	175	119
		Northbound	L	**F**	0.76	**461**	210
			T	D	0.72	**717**	**405**
			R	B	0.08	120	17
		Southbound	L	**F**	0.52	172	76
			T	D	0.60	**482**	237
			R	A	0.23	133	45

N/A – Not Applicable **Bold**, Gray = Failing

Source: CORE MPO CMP Update Study Team

3.1.5 Short-range Improvements/Recommendations

The analysis described in the previous sections has led to the identification of several short-term recommendations for improvements along SR 21, as well as improvements that could me made throughout the CORE MPO region in similar locations. These recommendations are detailed in the following sections.

3.1.3.1 Recommendations for the SR 21 Corridor

Based on the findings of the alternatives analysis portion of the study, one recommendation is made for the short term. This recommendation is to increase the storage length for the eastbound Bourne Avenue left-turn movement to improve the eastbound through movement at this intersection. It is anticipated that these recommendations, along with the current programmed GDOT project of adding a continuous exit lane from Jimmy DeLoach Parkway to the northbound exit lane at I-95 and SR 21, will aid in alleviating congestion in the area.

3.3 Congestion Management Using a System-Wide Approach – Case Study: Gap Analysis, Effingham Parkway Extension

As part of the CMP Update, RS&H was asked to perform a conceptual review and analysis of a proposed alignment of a connector (the proposed Effingham Parkway Extension) from the proposed Effingham Parkway southeast to I-95 and US 21/Augusta Road. Effingham Parkway is currently proposed to end at I-95 at its interchange with Jimmy DeLoach Parkway. RS&H conducted a review of this area to determine the most logical termini for this extension.

Southern Effingham County, to the north of Chatham County, has been experiencing significant population growth, primarily because of its close proximity to Savannah. In order to accommodate this growth, Effingham Parkway and the Effingham Parkway Extension will provide additional connectivity into Chatham County. These highways, along with other projects under consideration in the area, will also provide greater mobility within Chatham County, particularly for those traveling to or from the Port of Savannah, downtown Savannah, and the Savannah International Airport. CORE MPO requested an analysis of this area and the potential for the addition of Effingham Parkway Extension so that the most logical location and termini are selected.

The gap analysis undertaken to review the proposed Effingham Parkway Extension can be applied to other parts of the CORE MPO region where similar connector roads are under consideration. The following sections describe this analysis and make recommendations, specific to the Effingham Parkway Extension and also for general application to other areas in the Savannah region.

3.3.1 Existing Conditions

The study area for the gap analysis of the Effingham Parkway Extension lies in the City of Port Wentworth, in the northernmost portion of Chatham County, shown in Figure 11 on the following page. The boundaries of the study area are the Chatham/Effingham County boundary to the north, I-95 to the south, Highlands Boulevard to the west, and SR 21/Augusta Road to the east. This area includes two (2) I-95 interchanges: one with Jimmy DeLoach Parkway, and one with SR 21/Augusta Road, approximately two miles apart. SR 20/Augusta Road is currently a four-lane divided highway that travels north to Effingham County from downtown Savannah. SR 30 is a two-lane undivided roadway travelling east-west. The current proposed terminus of the Effingham Parkway is near SR 30/Clearwater Circle and Meinhard Road.

The land use surrounding the proposed western terminus to the north of SR 30 is primarily Undeveloped Land/Other. There are several parcels identified as Residential – Single Family. Further to the east, the existing land use is a mix of Undeveloped Land/Other, Commercial – Retail, and Industrial – Light. There is one small parcel along US 21 to the south of Berrien Road that is identified as Public/Institutional. Existing land use can be seen in Figure 12.

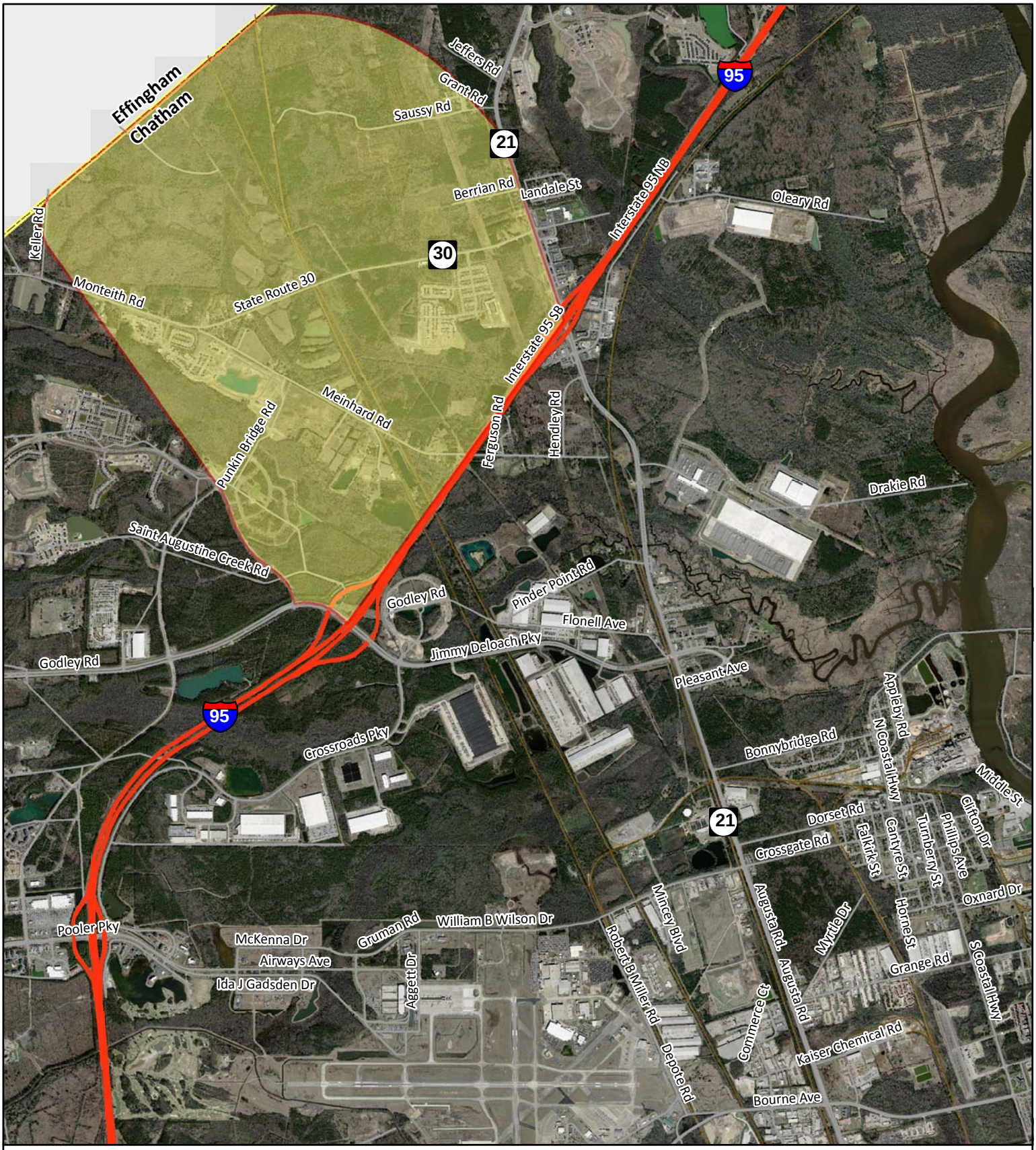


Figure 11. Study Area - Effingham Parkway Extension

CORE Congestion Management Process Update

N

0 0.125 0.25 0.5 0.75 Miles

Legend

- Gap_Study_Area
- Interstate 95
- Railroad
- Chatham County Boundary

Source: Chatham County GIS

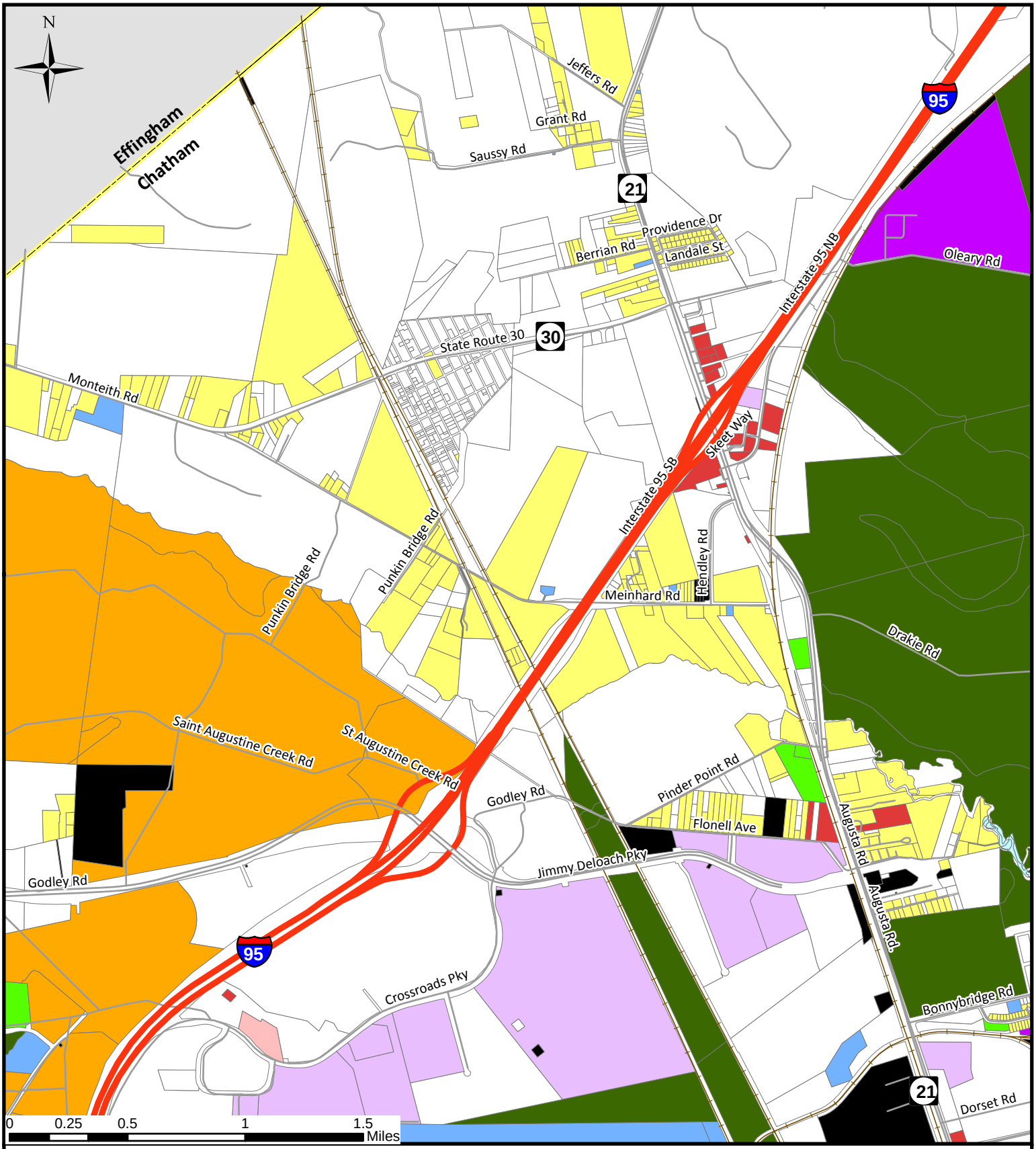


Figure 12. Existing Land Use

CORE Congestion Management Process Update

Legend

- Residential- Single Family
- Residential- Multi-Family
- Public/Institutional
- Commercial- Office
- Commercial- Retail/Services
- Trans/Com/Utility
- Agriculture/Forestry
- Industry- Light
- Industry- Heavy
- Parks/Recreation
- Conservation
- Tidal Marsh
- Open Water
- Undeveloped Land/Other
- Railroad
- County Boundary

Source: Chatham County GIS

3.2.2 Alternatives Analysis

The alternatives analysis process consisted of several components to determine the most logical location of the Effingham Parkway Extension. First, an existing conditions analysis was conducted to gain a thorough understanding of the study area. Land use, proposed developments, zoning, and wetlands were all identified so that the recommended alignment does not interfere with previous planning and development efforts of CORE MPO.

Because of this area's close proximity to the Atlantic Coast, it is characterized by significant wetland areas. The study area has a large amount of palustrine wetlands, which are swamps or marshes that consist of very dense trees and shrubs. Figure 13 displays the wetland areas in the study area for the Effingham Parkway Extension.

The existing zoning patterns were also considered as alternatives were developed. The study area for the Effingham Parkway Extension is primarily zoned Residential Agricultural. There are also smaller parcels in this area that are zoned Planned Residential Institutional, Residential-One Family, Planned Neighborhood Business, and Planned General Business. The zoning can be found in Figure 14. As alternatives were developed, careful consideration was made to avoid established homes, businesses, and other developed parcels.

Next, additional projects in and surrounding the study area of the Effingham Parkway Extension were identified to determine if any would enhance the Extension or provide logical termini. There are four (4) additional projects in this area, and each of them was considered as potential alignments for the Effingham Parkway Extension were developed. These projects consist of:

1. **Port "Last Mile" Project/Jimmy DeLoach Connector:** This project consists of an extension of Jimmy DeLoach Parkway southward to SR 307/Bourne Avenue.
2. **State Road and Tollway Authority (SRTA) Savannah Northwest Toll Expressway:** This project proposes a new, elevated route along SR 21/Augusta Road from the terminus of I-516 north to I-95.
3. **Effingham Parkway:** The Effingham Parkway would extend from SR 30 in Chatham County to Effingham County.
4. **Chatham Interstate Study:** This study assesses the interstate system travelling through Chatham County, I-95, I-16, and I-516.

These four projects are presented in Figure 15.

Each of these projects offers unique solutions to travel demand in this area. In order to make a recommendation for the Effingham Parkway Extension, all of these projects were evaluated separately and in combination to determine the most suitable alignment for the Effingham Parkway Extension.

The purpose of the Savannah Port "Last Mile"/Jimmy DeLoach Connector project is to provide a more seamless route to I-95 directly from the Port of Savannah than what is currently available. In conjunction with several other "last mile" projects surrounding the Port of Savannah, truck traffic in particular would have access to a more direct route to the surrounding interstate system. Because the Effingham Parkway Extension is on the northern side of I-95 and the Jimmy DeLoach Connector project to the south, these projects would likely not be in conflict with one another.

The SRTA Northwest Toll Expressway would provide a toll facility from the terminus of I-516 to Jimmy DeLoach Parkway/SR 21, and potentially extending further north to the I-95 interchange with SR 21. This

could potentially coincide with the Jimmy DeLoach Connector described above, if implemented. This roadway is being considered as "elegant elevated lanes" along or adjacent to the existing SR 21 alignment. The Northwest Toll Expressway would provide a direct route to I-95 from downtown Savannah, the Port of Savannah, and surrounding activity centers that experience significant freight traffic.

Effingham Parkway is proposed to connect from SR 30 in northern Chatham County into Effingham County to the north. This roadway would provide additional connectivity between downtown Savannah, the Savannah International Airport, the Port of Savannah, and growing Effingham County. Currently, the northern portion of Chatham County bordering Effingham County does not have a direct route to the interstate system. Effingham Parkway would provide additional connectivity in this area and, coupled with a new facility such as the Effingham Parkway Extension, Jimmy DeLoach Connector, or Northwest Toll Expressway, would provide direct access into downtown Savannah and I-516.

The *Chatham County Interstate Needs Analysis and Prioritization Plan* (Chatham Interstate Study) was conducted for GDOT in 2008, and evaluated I-95, I-16, and I-516 within Chatham County to determine the needed improvements for the interstate system. This study identified I-95 at SR 21 as the most needed interstate project that is currently unfunded, and noted that roadway capacity and interchange operations at this location are both in need of improvement. The report called for widening SR 21 surrounding the I-95 interchange, with added turn lanes at all intersections. Two new loop ramps were also recommended for traffic exiting I-95 for SR 21. This interchange is also a part of the study area for the Effingham Parkway Extension analysis. Additionally, the Chatham Interstate Study recommended widening I-95 from I-16 north to SR 21 from three to four lanes in each direction (GDOT P.I. No. 51165).

Taking into account the findings of the existing conditions analysis and the surrounding proposed projects, an aerial review was performed to identify potential alignments for the Effingham Parkway Extension. Two primary alternatives were developed, as described below and shown in Figure 16:

> **Alternative 1:** Depart from proposed Effingham Parkway just south of the Effingham County line and extend east toward SR 21. Travel to SR 21, tying to just north of SR 30. Follow SR 21 to its intersection with I-95.
>
> **Alternative 2:** Depart from proposed Effingham Parkway east of the SR 30/Meinhard Road intersection. Continue southeast to cross I-95 and tie to the SR 21 south of the interchange. A collector-distributor road network would be implemented between the I-95/Jimmy DeLoach Parkway interchange and the I-95/SR 21 interchange in order to provide access to travelers between I-95 and Effingham Parkway Extension.

As Alternative 1 is implemented, the interchange with I-95 and SR 21 must be considered. The CORE MPO CMP Update proposes that SR 21 and the Effingham Parkway Extension become a single limited access highway between their point of intersection to the north and the point of departure of the Savannah NW Toll Expressway on the southern side of I-95. This would require modifications to the existing I-95/SR 21 interchange. The Study Team recommends one-way access roads in both the northbound and southbound directions of SR 21/Effingham Parkway Extension, and elevating Effingham Parkway Extension at its northern intersection with SR 21 and at its southern intersection with the Savannah NW Toll Expressway, which is also elevated. In order to access the businesses located along both sides of the highway, u-turning locations would be necessary, which could be implemented pass underneath the highway where it is elevated. This would require additional reconstruction of the I-95 interchange in order to provide access from I-95 to both SR 21/Effingham Parkway Extension and the

access road system adjacent to it. These recommendations could not be implemented in tandem with the recommendations made by the Chatham Interstate Study.

A summary of opportunities and challenges associated with Alternative 1 are listed below.

Alternative 1 - Opportunities:

- Potentially does not require any displacements by travelling through currently undeveloped land.
- Provides a needed route to I-95 by way of SR 21.
- Provides a continuous limited/controlled access link from Effingham County to the Port of Savannah and the Savannah/Hilton Head International Airport, if I-95/SR 21 improvements and the Savannah Northwest Toll Expressway are implemented.

Alternative 1 - Challenges:

- Would require extensive reconstruction of I-95/SR 21 interchange.
- Could not be implemented with the current recommendations made to I-95/SR 21 interchange from the Chatham Interstate Study.
- Could potentially be difficult to gain support of surrounding business owner because of the change in access required to their property.
- Would require two railroad crossings immediately after departing from Effingham Parkway.

Alternative 2 proposes an overpass of I-95 with the implementation of collector-distributor road system along I-95 so that continuous access is provided between those traveling on I-95 and the Effingham Parkway Extension. This would require the additional construction of ramps between the two roadways and the collector-distributor road. The collector-distributor road would feed traffic to northbound I-95 via the existing SR 21/I-95 interchange. Vehicles traveling to southbound I-95 would be fed through the existing Jimmy DeLoach Parkway interchange. Additionally, the CORE MPO CMP Update Study Team proposes that the Effingham Parkway Extension be elevated at its southern terminus, in order to tie to the proposed Savannah NW Toll Expressway, which is also elevated. With Alternative 2, each of the additional proposed projects in the area could still be implemented as they are currently planned.

A summary of opportunities and challenges associated with Alternative 2 are listed below.

Alternative 2 -Opportunities:

- Requires the least impacts to surrounding property owners.
- Each of the additional planned projects is not affected by the proposed alignment.
- Provides a continuous limited/controlled access link from Effingham County to the Port of Savannah and the Savannah/Hilton Head International Airport, if the Savannah Northwest Toll Expressway is implemented using a collector-distributor road system.
- Does not require reconstruction of existing I-95 interchanges at Jimmy DeLoach Parkway and SR 21.

Alternative 2 - Challenges:

- Must cross two railroad lines immediately after south of SR 30, which would have to be grade-separated due to its proximity to the SR 30 railroad crossing to the north.
- Would require significant curvature in order to avoid new development on southern side of SR 30.

- Would require a bridge over I-95.
- Could not be implemented in tandem with the I-95/SR 21 interchange upgrades as they are recommended by the Chatham Interstate Study without modifications.

3.2.3 Recommendations

The CORE MPO CMP Update Study Team recommends Alternative 2 for an extension to the proposed Effingham Parkway. This alignment was found to be the most desirable primarily because of its minimal impact to the surrounding transportation network. With the additional construction of a collector-distributor road, a streamlined route is provided linking the Port of Savannah, Savannah-Hilton Head International Airport, I-95, northern Chatham County, and Effingham County.

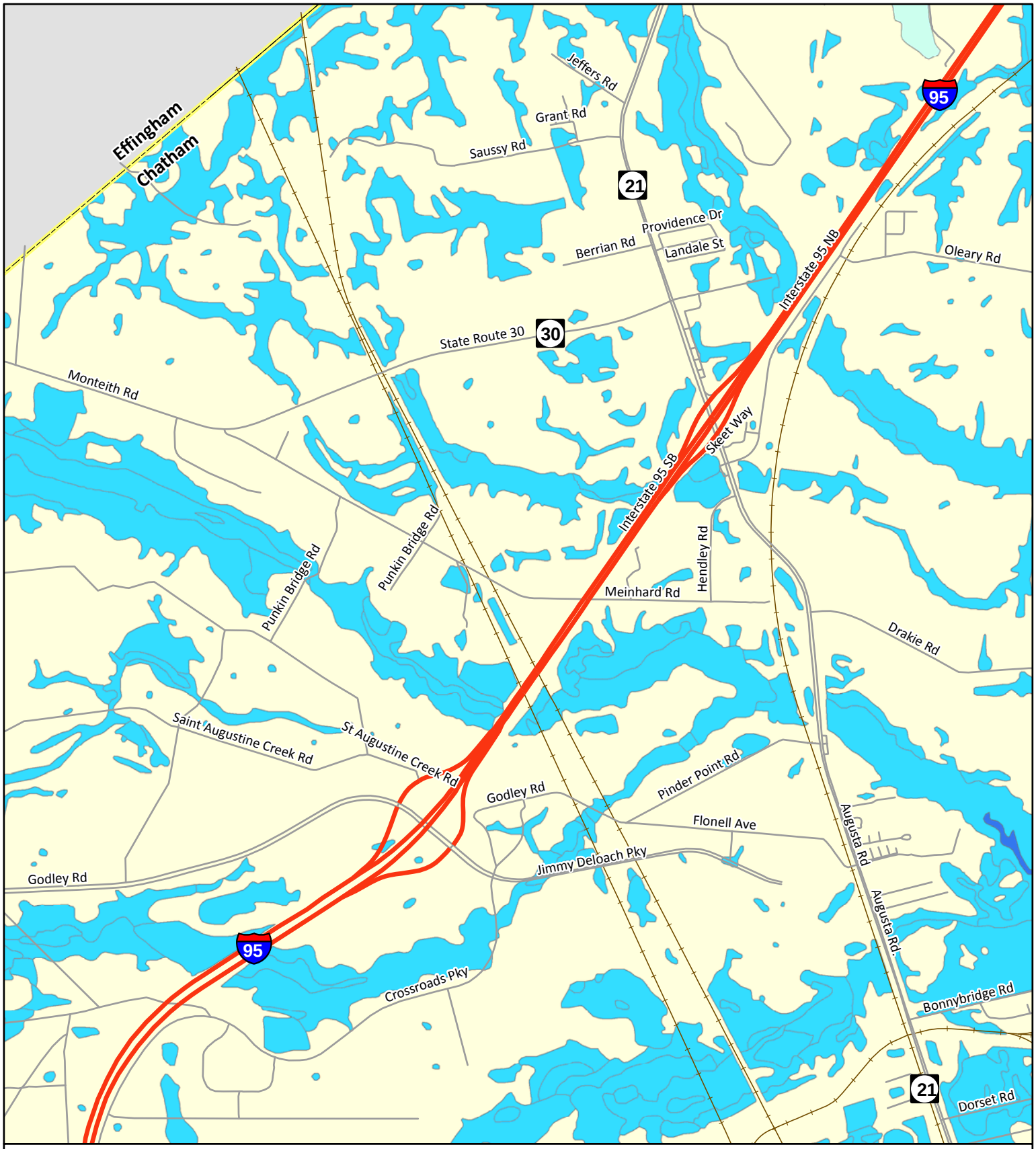


Figure 13. Wetlands

CORE Congestion Management Process Update

N

0 0.25 0.5 1 1.5 Miles

Legend

- Palustrine Wetland
- Lacustrine Wetland
- Upland
- Interstate 95
- Railroad
- Chatham County Boundary

Source: Chatham County GIS

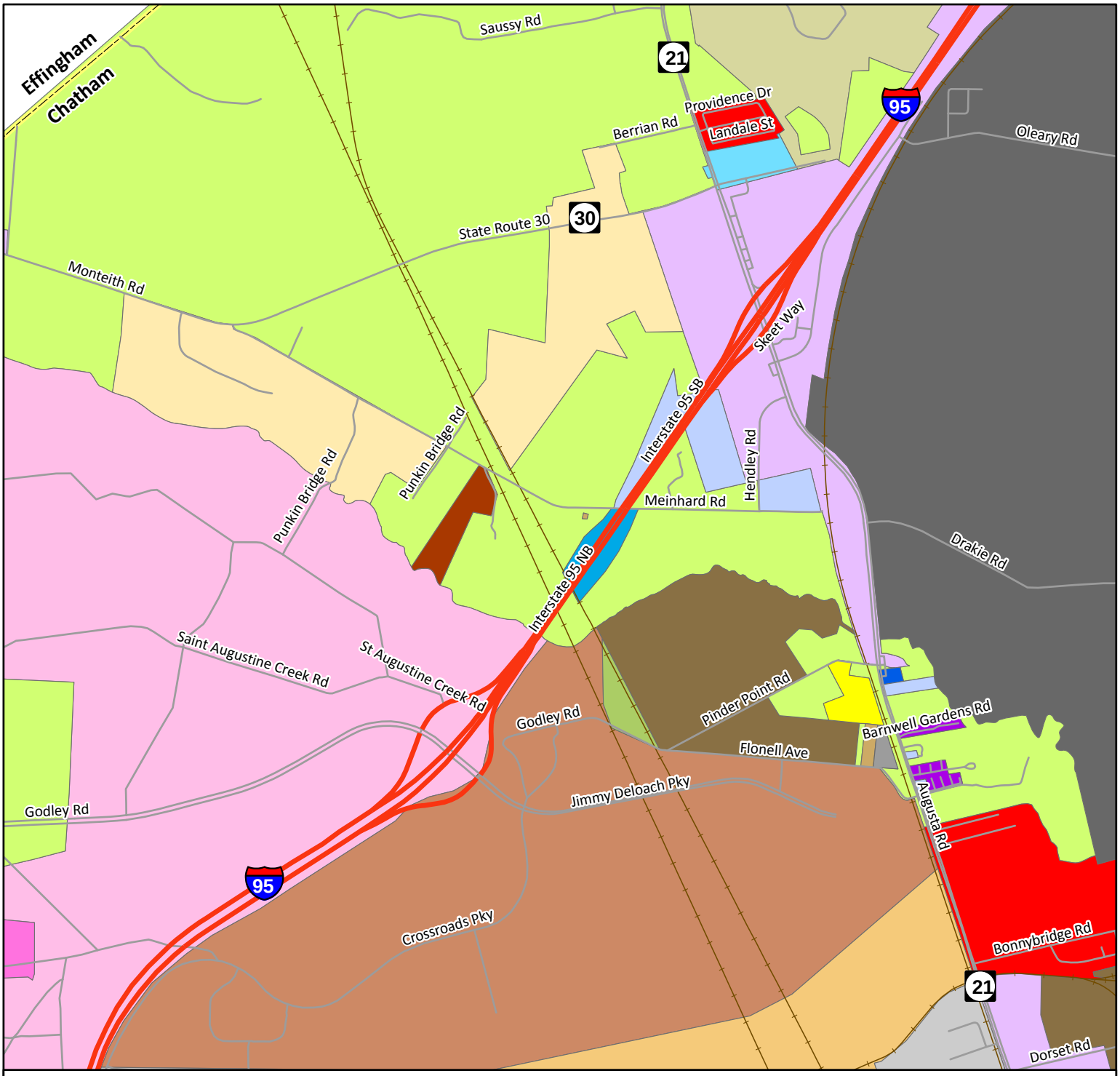


Figure 14. Zoning

CORE Congestion Management Process Update

Legend

- Neighborhood Business
- Community Business
- General Business
- Agricultural Conservation
- Industrial
- Heavy Industrial
- Light Industrial
- MPO
- Planned Neighborhood Business
- Planned Community Business
- Planned General Business
- Planned Development Reclamation
- Planned Industrial
- Planned Heavy Industrial
- Planned Light Industrial
- Planned Residential (Multi Family)
- Planned Residentail Institutional
- Planned Unit Development
- Planned Unit Development Community
- Residential-One Family
- Residential Agricultural
- Residential Mobile Home Park
- Interstate 95
- Railroad
- Chatham Co. Boundary

N

Source: Chatham County GIS

0 0.25 0.5 1 1.5 Miles

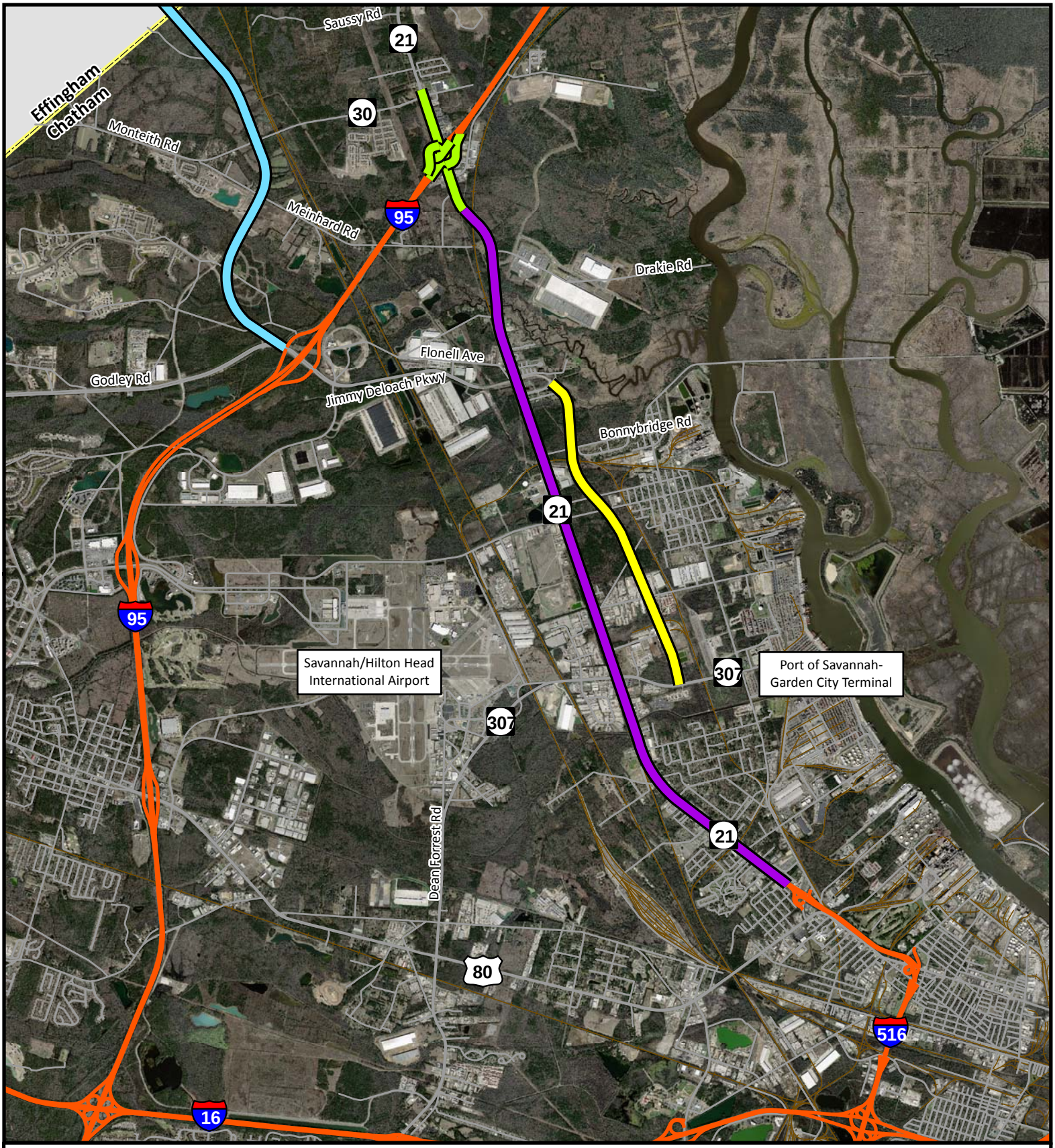


Figure 15. Proposed Projects in Area of Effingham Parkway Extension

CORE Congestion Management Process Update

Note: Alignments are taken from conceptual planning drawings and are for visioning purposes only.

N

0 0.5 1 2 3 Miles

Legend

- Proposed Jimmy Deloach Connector
- Proposed SR 21 Elevated Lanes Project
- Proposed Effingham Parkway
- Chatham Interstate Study Recommendation
- Railroad
- Interstate 95
- Chatham County Boundary

Source: Chatham County GIS

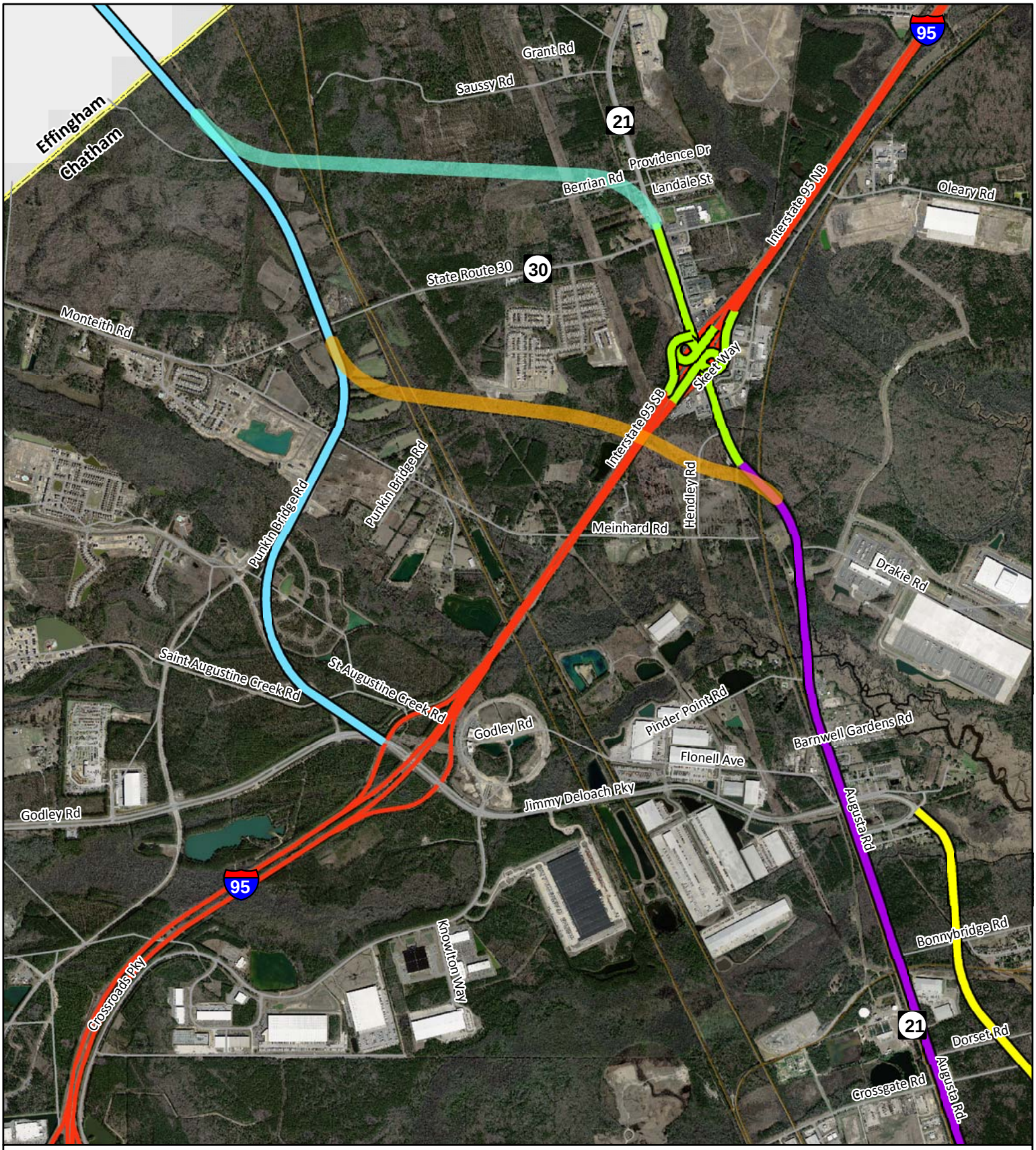


Figure 16. Effingham Parkway Extension Alterantives

CORE Congestion Management Process Update

Legend

- Alternative 1
- Alternative 2
- Proposed Jimmy Deloach Connector
- Proposed SR 21 Elevated Lanes Project
- Proposed Effingham Parkway
- Chatham Interstate Study Recommendation
- Interstate 95
- Railroad
- Chatham County Boundary

N

0 0.15 0.3 0.6 0.9 Miles

Source: Chatham County GIS

4.0 Data Collection, Monitoring, and Implementation

As previously discussed in Section **1.0 Introduction**, a CMP is meant to be a process by which municipalities continuously monitor congestion and implement strategies for improvement. In the following sections, this report will present recommendations for managing this process in the CORE MPO region. These recommendations should become an integral part of CORE MPO transportation planning efforts into the future.

4.1 TMC Analysis and Recommendations

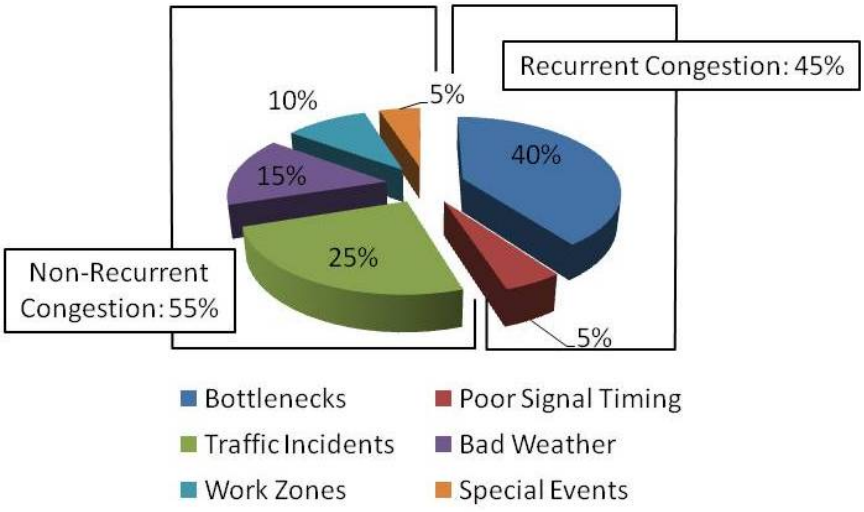
A proven tool for monitoring and managing congestion is the use of Traffic Management Centers (TMCs). As part of the CMP Update, RS&H was asked to conduct research into the potential implementation of a TMC in the Savannah region. This research, including the major types and functions of TMCs, the cost of implementing and maintaining a TMC, and the benefits of a TMC, is summarized in the following sections. Additionally, recommendations are made for a TMC that is best-suited for the Savannah region.

TMCs are central hubs that help to monitor and communicate traffic operations within a region. They are vital tools for communicating operations information, such as congested roadways, incidents, and other traffic conditions, to the public and to the media. In addition to monitoring, a TMC can also regulate the transportation system, including signal timing, transit operations, and transportation infrastructure.

A TMC typically uses various elements of Intelligent Transportation Systems (ITS) to manage communications. These ITS elements may include message signs, closed circuit video equipment, and roadside count stations, among others, which are linked through physical cables or wireless technology. This rapid exchange of information allows travelers to make informed commuting choices and allows local officials to respond to traffic issues in a timely manner.

A TMC represents an operations-based alternative to traditional transportation improvements such as new road construction and roadway facility expansion. Figure 17 below presents non-recurrent and recurrent congestion sources common to most regions.

Figure 17. Typical Sources of Recurrent and Non-Recurrent Congestion



Source: FHWA

Most of these congestion sources can be successfully addressed by operations management in the form of a TMC.

4.1.1 Types of TMCs

There are numerous TMCs throughout the United States. Each TMC caters to the region it serves, varying uniquely in size and by functionality. There are three (3) major types of TMCs:

Freeway Management Center: A Freeway Management Center monitors and controls traffic on limited access roadways and interstate highways. The objective of this center is to detect, verify, and actively manage traffic incidents in order to maintain efficient traffic flow.

Traffic Signal System Centers: A Traffic Signal System Center monitors the flow of traffic on surface streets. It can regulate signal timing as necessary to maintain efficient traffic flow, including the alteration of signals to divert traffic away from incidents.

Transit Management Center: A Transit Management Center manages buses and railcars by tracking the fleets and supporting their operations. This type of center is especially useful for mixed fleets, where the coordination of bus and rail operations is essential for cost-effective and efficient transportation.

4.1.2 Major Functions of a TMC

A TMC is a facility for the management and coordination of a transportation network, relying on many types of advanced technology. There are various functions that TMCs across the country carry out. Every TMC has a unique set of tools and functions that best suits the region's transportation management goals. The successful implementation of a TMC's functions is vital to productive management of the region's transportation network and infrastructure. The primary functions of a TMC are as listed below.

Roadway Management – This involves the monitoring and control of traffic flow, including balancing flow between alternate routes, communicating relative travel times for alternate routes, and ramp metering.

Incident Management – Incident management employs programs and strategies such as warnings for unsafe or congested roadways, motorist assistance patrols, lane closure management, and dispatch to repair damaged roads or remove debris.

Fleet Management –Fleet management is the monitoring and management of a specified type of vehicle (for example, trucks and buses) operating on a roadway.

Traffic Signal Control – This is the monitoring of the traffic signal network and its impact on traffic at specific locations. It is useful for detecting maintenance needs of traffic signals or for dispatching law enforcement to direct traffic if necessary.

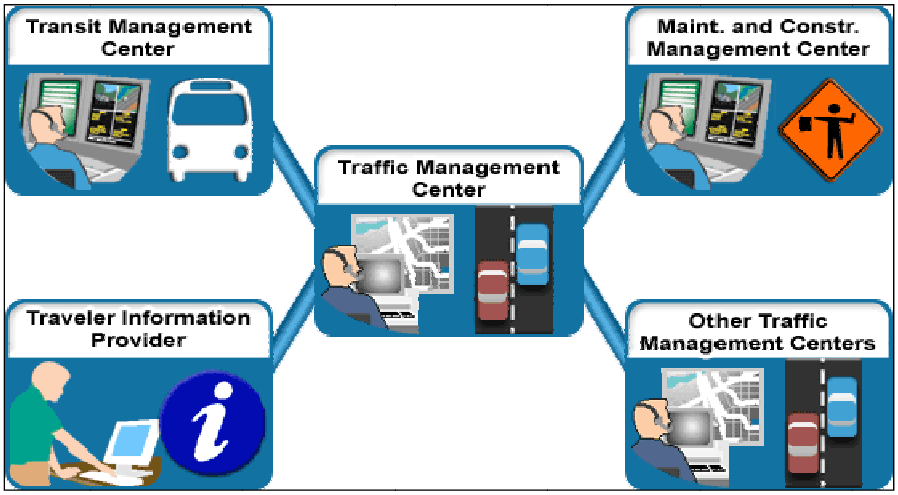
System Control and Data Acquisition (SCADA) – This is the management of transportation infrastructure such as tunnels, ventilation systems, fire detection and suppression devices, security monitoring, and motorist telephone systems.

Multi-Agency Coordination – The TMC provides an opportunity for multiple agencies, including Departments of Transportation, law enforcement, and local governments, to coordinate transportation management efforts.

Information Dissemination – One of the most vital functions of TMCs is the dissemination of traffic information to the transportation system users via message signs, local radio, internet, and other forms of communication.

Figure 18 below shows a typical structure of a TMC.

Figure 18. Typical Structure of a Transportation Management Center



Source: USDOT Research and Innovative Technology Administration

A TMC is typically formed through a collaborative process among various agencies that have an interest in managing congestion in a region and can provide unique services or information towards this effort. Appendix C gives further detail on how collaboration and coordination are vital to implementing and managing a TMC.

4.1.3 Benefits of a TMC

There are numerous benefits that a TMC can provide for a region, some quantitative and others qualitative. Among them are:

- Reduced traffic congestion;
- Increased interstate capacity and speeds during peak hour traffic;
- Reduction in incident response times, as well as lower incident rates (from secondary incidents caused by the initial incident);
- Clear roadway shoulders as a result of roadside services available to vehicles with maintenance issues that would otherwise require prolonged use of the shoulder;
- Enhanced safety of the transportation network;
- More efficient dissemination and circulation of traveler information;
- Enhanced communication between overall traffic and individual motorists;
- Cost savings by sharing responsibilities among fewer staff (emphasis on computers and technology);
- Potential for co-location of agencies, such as emergency services, and providing opportunities for cost sharing
- Roadside motorist assistance;
- Reduction in fuel consumption and emissions; and
- Customer satisfaction.

4.1.4 Costs and Funding Sources of a TMC

The cost of a TMC varies widely depending on the size and function of the center, which is determined largely by the size of the population served, the geographic extent, and miles of roadway covered. The initial costs of the TMC are for conception, design, and construction of required infrastructure; the primary costs throughout the TMC's lifetime cover the implementation of the programs as well as annual operations and maintenance.

Table 11 on the following page shows average estimates of capital and operation/maintenance costs for TMCs that serve different population sizes. Operations and maintenance costs can be assumed as 10 to 15% of capital costs annually.

Table 11. Average Costs for TMCs, by Size of Area Served

Note: All costs are in $K. All costs in 2006 dollars. The date in parentheses under the capital cost value and operations and maintenance (O&M) cost value indicates the dollar year from which the cost value was adjusted.

Unit Cost Element	Capital Cost	Operating and Maintenance Cost
Basic Facilities, Common for **Large Area** (Population > 750,000)	$4.31 – $9.86 million (adjusted from 2003)	$431,000 - $1.48 million (2003)
Basic Facilities, Common for **Medium Area** (Population 250,000 – 750,000)	$4.30 million (adjusted from 1995)	$538,000 - $646,000 (1995)
Basic Facilities, Common for **Small Area** (Population < 250,000)	$3.77 million (adjusted from 1995)	$538,000 - $565,000 (1995)

Source: Intelligent Transportation Systems – Research and Innovative Technology Administration. US Department of Transportation.

Note: Based on purchase of building rather than leasing space. Communications includes communications equipment internal to the facility such as equipment racks, multiplexers, modems, etc. O&M is estimated at 10-15% of the capital cost.

CORE MPO has a metropolitan population of about 320,013 people, which places it at the lower range of the "Medium Area" category. According to the chart above, the estimated capital cost of a TMC would be approximately $4.30 million (2006 dollars), or $4.8 million in 2009 dollars, while the annual operations and maintenance cost would be between $538,000 and $646,000. Because CORE MPO is on the lower range of the Medium Area category, the costs are likely to fall within the lower ranges of these estimates.

A successful TMC should be funded through a regional, collaborative process, whereby a group of agencies commits resources to fund operations, maintenance, and other aspects of the TMC. Most funding for operations will come from individual agency budgets, with multiple resource-sharing agreements among the agencies. One type of agreement is to share key resources (such as equipment and personnel) across jurisdictional boundaries or among operators or service providers. There may also be agreements on acquisition and procurement that ensure interoperability and standard protocols for communications and data exchange. Potentially, capital investments into operations-related infrastructure (such as networks, operations centers, or sensors) could be identified and implemented regionally or in conjunction with other capital improvement projects. Successful funding for such projects requires operating agencies and service providers to be actively involved in the region's capital planning process. It also requires a shared vision for operations among regional planners. Overall, the collaborating agencies must agree that operations improvements are vital to the efficacy of the transportation network, and to that extent, should commit to funding of operations equal to or greater than capacity expansion.

The initial funding of regional operations typically comes from individual agency budgets, when the structure is not as formalized. As the TMC becomes fully functional, it is often designated as a separate entity that receives funding from the participating agencies. The following are examples of how different TMCs have established funding:

- **AZTech** (Phoenix, AZ) began as part of a Metropolitan Model Deployment Initiative, a three-year program of the Intelligent Transportation Systems (ITS) Joint Program of the US Department of Transportation. AZTech deployed an ITS system in the Phoenix area as well as three other metropolitan areas. In Phoenix, AZTech focused on coordinating traffic signals in the East Valley region of the city, creating a series of Smart Corridors to allow smooth traffic flow across jurisdictions. AZTech is a funded entity comprised of 40 public and private agencies that collaborate in regional operations management.
- The **Coordinated Highways Action Response Team (CHART)** (Maryland) is operated through a series of resource agreements between state and local agencies. For example, the Maryland State Highway Administration funds items for the Maryland State Police in return for full-time police staff at the Statewide Operations Center. CHART also has agreements with media outlets to receive real-time footage of traffic incidents and delays from local stations' traffic helicopters; in return, the stations can access live closed-circuit television feeds from the Statewide Operations Center.

4.1.4.1 Costs of Georgia Navigator TMC

In 1996, in anticipation of the Olympic Games in Atlanta, GDOT created an integrated Intelligent Transportation System to improve and monitor traffic mobility, called Georgia Navigator. The main TMC facility is in Atlanta, but the operations management is extended throughout the State of Georgia by smaller Traffic Control Centers operated by local counties and cities.

The Georgia Navigator Business Plan (April 2005) highlights the Georgia Navigator's projected expenditures for the 2006 fiscal year. These expenditures are related to specific tasks such as ITS design, maintenance of equipment, and research. This information is displayed in Table 12 below.

Table 12. Projected Expenditures for the Georgia Navigator

Task	Projected Expenditures
GDOT Research Project	$950,000
HERO Operations and Support	$4,150,000
TMC Operations and Support	$4,083,500
Maintenance of ATMS Equipment	$1,500,000
Replace/Maintain EDP Equipment	$1,500,000
Replace Outdated Hardware	$1,500,000
ITS Design	$1,000,000
Systems Integrator	$1,615,000
Proposed New Capital Project	$20,000,000
TOTAL	**$36,298,500**

Source: Navigator Business Plan. April 2005.

4.1.4.2 Costs of Clayton County Traffic Control Center (TCC)

The Clayton County Traffic Control Center (TCC) works in conjunction with GDOT's Georgia Navigator to monitor and manage traffic operations in Clayton County, Georgia. The County is approximately 143

square miles in area and has a population of 271,240[8]. In 1996, when the TCC was established, the initial capital costs were approximately $4.5 million. The facility itself, which is 1,500 square feet in area, cost about $60,000. The center receives 100% federal funding, although GDOT does manage some aspects of the County TCC's operations. In light of budget shortfalls for local governments across the country, an assurance of significant funding from the federal government is appealing to regions that desire to implement a regional operations system.

The Clayton County TCC manages 56 cameras that monitor the roadways, 78 miles of fiber optic cable, and 13 radar stations. Recently, the TCC has received additional federal funding for school signals and timing control ($4 million for approximately 70 signals) and coordination with the County 911 Center, so that operators can access TCC camera footage ($7 million). In addition, Clayton County controls three electronic changeable message signs on local roads; GDOT operates the additional message signs throughout the County.

4.1.4.2 Costs of SMART SunGuide TMC

The SMART SunGuide TMC serves Florida Department of Transportation's District IV, which includes nine major cities (Belle Glade, Boca Raton, Fort Lauderdale, Fort Pierce, Hollywood, Pompano Beach, Stuart, Vero Beach, and West Palm Beach) and five counties (Broward, Indian River, Martin, Palm Beach, and St. Lucie). This region has an area of approximately 4,811 square miles and a population of almost 3.6 million.[9] Table 13 below shows the distribution of costs for the SMART SunGuide TMC. These values have been adjusted to represent 2006 dollars.

Table 13. SMART SunGuide TMC (FDOT) Annual Costs, Adjusted to 2006 Dollars

Deployment	Estimated Capital Cost	Estimated Current Operations Costs	Estimated Maintenance Cost	Annualized Cost ($/year)
SMART SunGuide TMC	$6,700,000	$1,792,555	$320,265	$2,745,300
Software Support	N/A	$250,000	N/A	$250,000
General Consultant	N/A	$400,000	N/A	$400,000
Road Ranger	N/A	$2,500,000	N/A	$2,500,000
Severe Incident Response Vehicle	N/A	$500,000	N/A	$500,000
Dynamic Message Signs	$11,000,000	$22,320	$620,000	$22,087,200
Traffic Incident Management (TIM)	N/A	$200,000	N/A	$200,000
CCTV and Detection System (Phase I)	$2,845,462	N/A	$254,000	$597,277
CCTV and Detection System (Phase II)	$15,520,168	N/A	N/A	$253,856
ATIS System (511)	N/A	$250,000	N/A	$250,000

[8] *2006 US Census estimate*
[9] *2006 US Census estimate*

Deployment	Estimated Capital Cost	Estimated Current Operations Costs	Estimated Maintenance Cost	Annualized Cost ($/year)
TOTAL	**$36,065,630**	**$5,914,875**	**$1,194,265**	**$9,905,153**

Source: Intelligent Transportation Systems – Research and Innovative Technology Administration. US Department of Transportation[10]

The CORE MPO region may also consider a standalone center to manage traffic operations, similar to the SunGuide TMC. When considering the capital, operations, and maintenance cost associated with a standalone center, the figures shown in Table 12are higher than they would be for CORE MPO because the region is significantly smaller than the five-county FDOT District IV.

Appendix C includes additional information about TMCs. This includes the implementation process for a TMC, additional TMC case studies, and typical operations and equipment information.

4.1.5 TMC Recommendation for CORE MPO

In order to determine what type of TMC facility is best suited for the CORE MPO region, CORE MPO must establish its goals for the program. After a review of the transportation system in Chatham County, the following goals and anticipated outcomes are presented in Figure 19.

Figure 19. Goals and Expected Outcomes for CORE MPO TMC

Source: CORE MPO CMP Update Study Team

With these goals in mind, the CORE MPO area may best benefit by establishing an operations relationship similar to that of Clayton County and the Georgia Navigator system, as described above in section **4.1.4.2 Costs of Clayton County Traffic Control Center (TCC)**. GDOT would be able to provide operations and management support to the CORE MPO region, eliminating much of the start-up issues and costs associated with standalone TMCs. Additionally, CORE MPO could receive a significant amount of federal funding for operations. The partnership of a CORE MPO Traffic Control Center with the statewide Georgia Navigator system would assist the CORE MPO region in addressing many of the

[10] *http://www.itscosts.its.dot.gov/its/benecost.nsf/0/FD2D9EE0DA5E6DE18525727400659AF0*

congestion issues it currently faces. Some of the solutions that a TCC could bring to the region consist of:

- Reduced traffic congestion through a multi-agency, coordinated effort to monitor roadways;
- Reduced incident response times, as well as lower incident rates from secondary incidents;
- More efficient dissemination and circulation of traveler information;
- Reduction in fuel consumption and emissions; and
- Increased customer satisfaction.

Once the goals of a CORE MPO TCC are established, the structure, equipment, and performance measures can be determined among the parties that would be responsible for its operation, management, and coordination. These groups could include the MPC, GDOT, City of Savannah, and Chatham County.

4.2 Summary of 2004 Congestion Management System Report Recommendations

The 2004 CMS found that approximately 10% of the studied roadways were congested, determined by the LOS of each. Recommendations for improvements to these roadways were recommended, and these project types included access management, signal timing optimization, traffic signal coordination, new signals, multimodal considerations, and roadway widening. Table 20 below lists the twenty most congested segments and the recommended improvements for each. The 2004 report indicated the priority of some improvements, but did not engage in a formal prioritization of recommendations. A detailed list of all congested corridors and recommended improvements can be found in Appendix A, in the complete *2004 Congestion Management System Report*.

Figure 20. Top 20 Congested Segments in CORE MPO Region, 2004 CMS

Rank	Route & Direction	Roadway Segment	2004 CMS Recommendations	2009 CMP Update	
				Status	Recommendations
1	Waters/Whitfield/Diamond Causeway - NB	Stephenson to DeRenne	Corridor will improve with extension of Truman. Study in next CMS; review in E-W Study.	Project not completed - Whitfield (from Old Whitfield to Ferguson) and Diamond Causeway (from Ferguson to McWhorter) programmed for construction between 2008-2013	Implement programmed improvements by 2013
2	Habersham - SB	Johnston to Stephenson	Currently under construction on Stephenson. Stephenson widening will help Habersham.	Project completed	Continue to monitor for improvement
3	Bull/White Bluff - SB	Eisenhower to Abercorn	Constrained due to canopy. NB/SB left turns very light; consider restricting them, add NB right turn overlap	Project not completed	Monitor and Study in next CMP Update
4	Mall Blvd - WB	Mall Way to Abercorn	Planned intersection TIP. Consider change in lane use for shared dual left; study addition of NB right turn.	Project completed (Abercorn St. at Oglethorpe Mall intersection improvement)	No further action required
5	Bull/White Bluff - NB	Hampstead to DeRenne	Constrained due to canopy. Improvements limited to optimizing signal operations; study in E-W study	Project not completed	**Short-Range:** Signal re-timing or implement ACS-Lite software (or similar) - *see note below* **Long-Range**: Study in next CMP Update or DeRenne Ave Congestion Mitigation improvements to be constructed by 2013
6	Habersham - NB	Johnston to DeRenne	Cross street delay expected; study further in E-W study for improving DeRenne.	Project not completed	Study in next CMP Update or DeRenne Ave Congestion Mitigation improvements to be constructed by 2013
7	Waters/Whitfield/Diamond Causeway - SB	DeRenne to Stephenson	Corridor will improve with extension of Truman. Study in next CMS.	Project not completed - Whitfield (from Old Whitfield to Ferguson) and Diamond Causeway (from Ferguson to McWhorter) programmed for construction between 2008-2013	Implement programmed improvements by 2013
8	Abercorn - SB	Veterans Pkwy to King George	Priority IC - Widen 4-6 between King George and Rio; Priority II - Widen 6-8, widen King George approach.	Project not completed - SR 204/Abercorn widening from King George to Rio Road scheduled for construction 2021-2030.	Study in next CMP Update
9	SH 21/I-516/DeRenne - EB	Montgomery to Bull	Once traffic is metered through Montgomery, signals should be coordinated for progression. Consider in E-W study.	Project not completed	**Short-Range:** Signal re-timing or implement ACS-Lite software (or similar) - *see note below* **Long-Range**: Study in next CMP Update or DeRenne Ave Congestion Mitigation improvements to be constructed by 2013
10	Ogeechee/US 17- WB	Quacco to SH 204 WB Ramp	Currently under construction. Study in next CMS.	Project completed	Continue to monitor for improvement
11	SH 21/I-516/DeRenne - EB	Cross Gate to SH 25	Currently is a detour due to construction on SR 25. Study next CMS.	Project not completed; scheduled for construction between 2014 and 2020	Implement programmed improvements by 2020
12	SH 21/I-516/DeRenne - WB	SH 25 to Cross Gate	Currently under construction on SR 25.Study in next CMS.	Project not completed; scheduled for construction between 2014 and 2020	Implement programmed improvements by 2020
13	Abercorn - SB	Apache to Rio	Priority IC - Widen 4-6 from Rio to Truman, optimize Rio to King George	Project not completed - SR 204/Abercorn widening from Rio Road to Truman Parkway Phase V scheduled for construction 2008 - 2013.	Implement programmed improvements by 2013

Rank	Route & Direction	Roadway Segment	2004 CMS Recommendations	2009 CMP Update	
				Status	Recommendations
14	Skidaway - SB	La Roche to DeRenne	Corridor will improve with extension of Truman and widening of Skidaway. Study in next CMS.	Project not completed -Skidaway operational improvements (between Rowland Ave. and Ferguson Ave. scheduled for construction between 2008-2013	Implement programmed improvements by 2013
15	Bull/White Bluff - SB	61st St. to DeRenne	Constrained due to canopy. Improvements limited to optimizing signal operations.	Project not completed	Signal re-timing or implement ACS-Lite software (or similar) - *see note below*
16	Montgomery Cross - EB	Tibet Ave to Abercorn	Funded project for construction FY 2004-06. PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn, study approach at Abercorn.	Project completed	Continue to monitor for improvement
17	Montgomery Cross - WB	Sallie Mood to Waters	Signal operations - coordination between Waters and Abercorn.	Project not completed	Signal re-timing or implement ACS-Lite software (or similar) - *see note below*
18	Abercorn - NB	Private Drive to DeRenne	Priority IB - Operational - Optimize DeRenne and Abercorn will improve, NB right turn lane planned.	Project not completed	**Short-Range:** Signal re-timing or implement ACS-Lite software (or similar) - see note below **Long-Range:** Study in next CMP Update or DeRenne Ave Congestion Mitigation improvements to be constructed by 2013
19	Dean Forest/Bourne - SB	SH 25 to SH 21	High percentage of trucks and many stopped for queuing at Port - widen shoulder to provide storage.	Project not completed; problem confirmed through completion SR 21 analysis for 2009 CMP Update	Implement proposed project and study in next CMP Update
20	Abercorn - NB	Pine Grove to King George	Priority II - Widen 4-6 from US 17 to King George, acceleration lane for EB rights, widen King George approach.	Project not completed - SR 204/Abercorn widening from US 17 to King George scheduled for construction 2021-2030.	Study in next CMP Update

Source: 2004 CMS Report

4.3 CORE MPO CMP Update Recommendations

The recommendations for the 2009 CORE MPO Update were obtained by addressing methods of mitigating congestion throughout the multimodal transportation system through three primary modules: roadway system performance, land use/land development impacts, and freight system service. Congestion in each of these modules should be addressed using the following tools:

Roadway System Performance:

- Congestion Index (CI), and
- Approach Level of Service (LOS).

Land Use/Development Impacts:

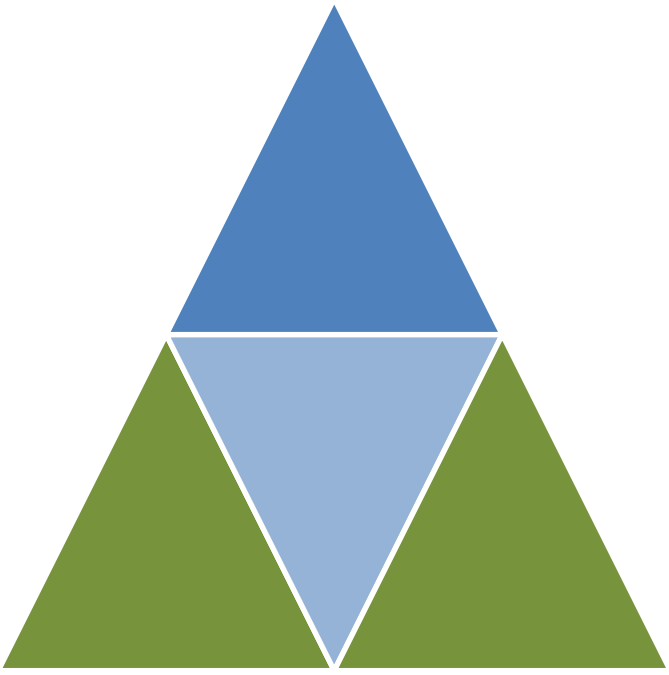
- Assess existing and future congestion using CORE MPO Traffic Impact Assessment (TIA) process, and
- Regulate access control through thoroughfare planning.

Freight System Service:

- Volume of truck traffic on key roadways.

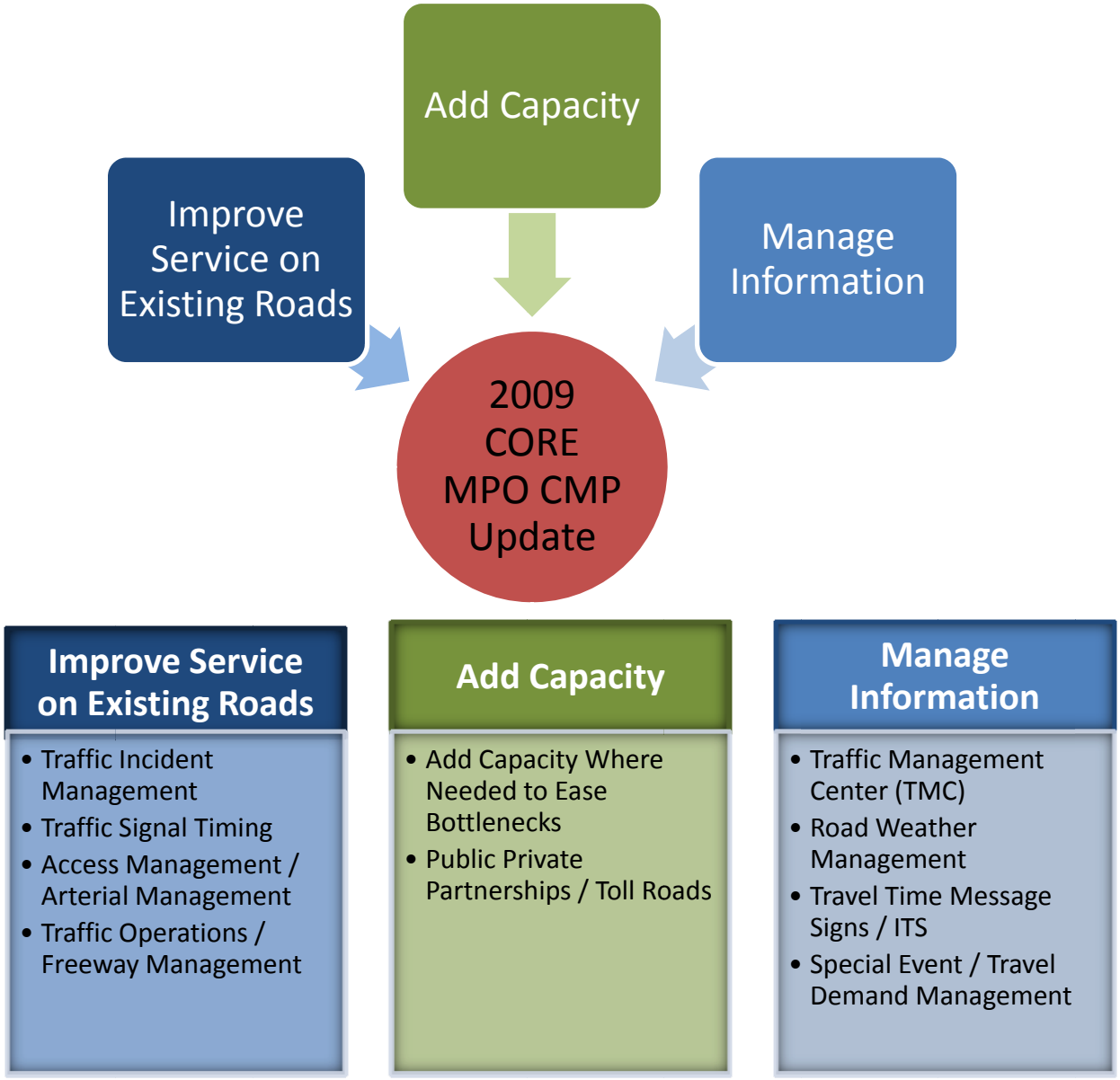
The success of each of the above modules strengthens the success of the overall multimodal system.

Figure 21. CORE MPO CMP Update Recommendation Modules



Source: CORE MPO CMP Update Study Team

Figure 22. CORE MPO Congestion Management Process Components



Source: US Department of Transportation, Federal Highway Administration

The tools listed above and shown in Figure 21 enabled the CORE MPO CMP Update Study Team to provide solutions to congestion in the region in the form of adding capacity, improving service on existing roads, and managing information. These three components form the backbone of a CMP, and their continual evaluation and implementation establish a strong transportation system that benefits all users. The FHWA gives guidelines for implementing these components, and the CORE MPO CMP Update Study Team utilized them as recommendations were made throughout the process. Figure 22 provides a summary of each of these components and their implementation guidelines given by FHWA.

Appendix A

Chatham County-Savannah Metropolitan Planning Commission

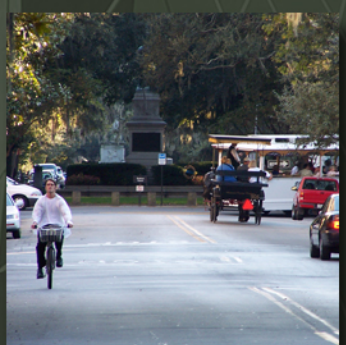
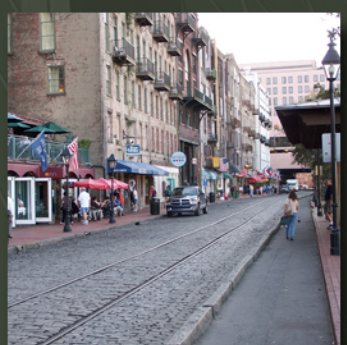
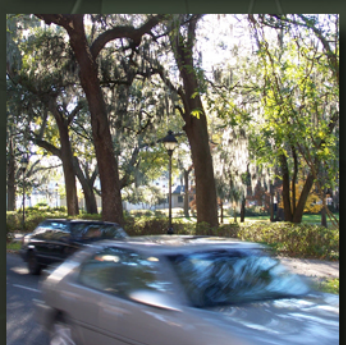
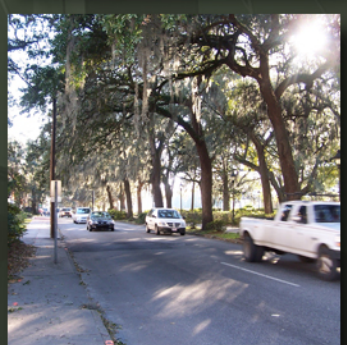
Congestion Management System Report - 2004

CORE COASTAL REGION MPO

RS&H IMPROVING YOUR WORLD

Chatham County-Savannah
Metropolitan Planning Commission

Congestion Management System Report - 2004

Prepared by:

Carter::Burgess

7950 Elmbrook Drive
Dallas, Texas 75247-4951

January 21, 2005

Submitted to:

Chatham County - Savannah MPC
110 East State Street
Savannah, GA 31412-8246

Project # 022626.010.1.0001

Table of Contents

Page No.

1.0 EXECUTIVE SUMMARY E-3
1.1 Key Findings E-6
1.2 Recommendations E-6
2.0 INTRODUCTION 1
2.1 Study Purpose 1
2.2 Study Limits 1
3.0 TRAFFIC THEORY 1
3.1 Roadway Capacity 1
3.2 Level of Service (LOS) 1
4.0 METHODOLOGY 3
4.1 Roadway Mapping 3
4.1.1 Global Positioning System (GPS) 3
4.1.2 Mapping Runs 4
4.2 Travel Time Runs 4
4.3 Video on Travel Time Runs 13
4.4 Problem Areas 13
5.0 ANALYSIS 13
5.1 Congestion Index 13
5.2 Roadway Segment Definition 14
5.3 Data Reduction 14
5.4 Presentation 14
6.0 EVALUATION 16
6.1 Approach Level of Service (LOS) and Congestion Index (CI) 16
7.0 CONCLUSIONS 41
8.0 RECOMMENDATIONS 43

Appendix A-Table for All Segments
Appendix B-Isolated Intersection Capacity Analysis Summary Sheets

List of Tables

Page No.

Table E-1 - Summary of Congested Segments (LOS D-F)-AM Peak Hour E-8
Table E-2 - Summary of Congested Segments (LOS D-F)-PM Peak Hour E-15
Table E-3 – Top 20 Most Congested Segments E-27
Table 1-Congestion Index Criteria..... 14
Table 2 - Summary of Study Roadways in Terms of LOS 16
Table 3 – Isolated Intersection Optimized with Synchro 17
Table 4 - Summary of Congested Segments (LOS D-F) AM Peak Hour 18
Table 5 - Summary of Congested Segments (LOS D-F)-PM Peak Hour..... 25
Table 6 – Top 20 Most Congested Segments 37

List of Figures

Page No.

Figure E-1 – Congested Segments-LOS D-F for Either AM or PM peak Period..... E-7
Figure 1 – Routes 2
Figure 2 – Mapping Elements 5
Figure 3 – Directional Lanes 6
Figure 4 – Functional Classification 7
Figure 5 – Speed Limits 8
Figure 6 – School Zones 9
Figure 7 – Jurisdictions 10
Figure 8 – Construction Zones..... 11
Figure 9 – Ramp Gores 12
Figure 10 – Example 1-Second Speed on Congested Segment Near Signal..... 39
Figure 11 – Isolated Intersection Locations..... 40
Figure 12 – 0.1 Mile Segments 42
Figure 13 –Continuous Flow Intersection Diagram..... 44
Figure 14 –Breakdown of Winter 2003-2004 Improvement Recommendations 45
Figure 15 –Breakdown of Winter 2003-2004 Improvement Recommendations by Segment..... 46

1.0 EXECUTIVE SUMMARY

Purpose

The Chatham County – Savannah MPC 2004 Congestion Management System (CMS) was conducted to evaluate the conditions of the existing roadway network, prepare recommendations for congestion mitigation measures, and project the future conditions of the primary roads within Chatham County. This information will be used by the MPO primarily to identify congestion and mobility problems and target these areas for improvement.

The purpose of this study was to identify problem areas using travel time studies and to prepare recommendations to improve the traffic flow on the transportation system as a whole and on specific corridors. The results of this study are used as factors in prioritizing needed improvements.

Background

The Federal Register established the regulations and expectations of a CMS that applies to those TMA's above 200,000 in population as determined by the 2000 Census. The Register is written in such a way as to provide guidance and minimums, but leaves specifics up to the agency to customize their approach to maximize the local benefits. Those minimums include the requirement that the system needs that are identified through the CMS be considered in preparation of the metropolitan and statewide transportation plan. Congestion, for the purpose of CMS regulations, is the level at which the transportation system performance is no longer acceptable due to traffic interference. This regulation leaves it open to the local agency to define what is unacceptable delay or congestion. The register further suggests, "An effective CMS is a systematic process for managing congestion that provides information on transportation system performance and on alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet State and local needs."

The following CMS minimums are highlighted and shall be developed, established, and implemented as part of the metropolitan planning process and shall include:

1. Methods to monitor and evaluate the performance of the multi-modal transportation system, identify causes of congestion, identify and evaluate alternative actions, and evaluate the efficiency or effectiveness of implemented actions;
2. Definitions of performance measures for the extent of congestion and the effectiveness of congestion reduction and mobility strategies;
3. Establishment of a methodology for collecting the data and system monitoring that defines the extent and duration of congestion, determination of the causes of congestion, and evaluation of the implemented mitigation;

4. Identification and evaluation of the recommended mitigation that will contribute to more efficient use of the existing transportation network;
5. Identification of schedule, responsibilities, and possible funding sources; and
6. Implementation of a process for periodic assessment of the network.

Improvements include signal timing optimization, access management, adding signals , and roadway widening.

Signal timing optimization increases the efficiency of an isolated traffic signal, providing more green time to the heavier movements. This allows more traffic to pass through the signal with less delay. Traffic signal progression improves the flow of traffic along a corridor. By adjusting signal timing and offsets, drivers can travel longer distances along a corridor before having to stop for a red light. This decreases travel time and improves air quality. Both signal timing optimization and traffic signal progression are low cost improvements to make the best use of existing capacity and optimize allocation of funding.

The U.S. Department of Transportation's Federal Highway Administration (FHWA) has produced a video showing that retiming traffic signals is one of the more cost-effective techniques available to state and local agencies in their efforts to manage congestion and growing travel demand. The video, "It's About Time, Traffic Signal Management: Cost-Effective Street Capacity and Safety," demonstrates how signal timing on roads can improve air quality while reducing fuel consumption, decreasing traffic congestion, and saving time for commercial and emergency vehicles. Two-thirds of all highway miles in the United States are roads with traffic signals. According to the Institute of Transportation Engineers, the United States has about 300,000 traffic signals. The performance of about 75 percent of them could be improved easily and inexpensively by updating equipment or by simply adjusting the timing.

Access management minimizes the number of access points along a given section of roadway. Reducing and combining access points, reduces the number of conflict areas along a corridor. Traffic generally slows down to make right and left turns into driveways and limiting the number of driveways limits the areas where traffic is interrupted by turning movements. In some cases, right or left turn lanes can be provided at combined driveways, and the slow turning movements can be removed from the through lanes.

Adding signals may be an improvement at four-way stop intersections or intersections with heavy major street and cross street traffic. This reduces delay for previously stop-controlled movements but may increase delay for movements that were not controlled. As traffic volumes increase, traffic signals, when warranted, are necessary to efficiently move traffic.

Roadway widening is necessary where traffic signal timing and access management are unable to provide enough capacity for heavy traffic volumes. Widening could include adding a through lane for a long section of road, or providing turn lanes at intersections. Adding capacity through roadway widening is generally expensive.

Methodology

The approach developed and used by Carter & Burgess includes study design in cooperation with the MPC, data collection using GPS and geo-referenced digital video, quality control procedures to ensure accurate data, coordination among the Consultant and agencies, data manipulation, public involvement, presentation of the data in tabular and map formats, and preparation of recommended mitigation for those areas found to be congested. This methodology far exceeds the minimum established by FHWA. Details about each component will be discussed in more detail in other areas of the study.

The Study design is a detailed plan of the study procedures and process. It was developed with the MPC and was followed through the course of the study. This document contains definitions, descriptions, and explanations that can be used for future studies, improving the compatibility of current and historical data.

Travel time data was collected using Global Positioning System (GPS). Multiple vehicles were used to perform three (3) runs in each direction during the morning and afternoon peaks, and two (2) runs in each direction during the off peak period. The GPS equipment recorded vehicle locations every second, and this information was used to calculate travel times, intersection delay, and approach LOS.

Geo-referenced digital video was recorded on selected runs and used to illustrate the conditions on each roadway.

The travel time data was manipulated to show average speeds by time period in relation to roadway functional classification and number of lanes.

This study was conducted on approximately 336 centerline miles of roadways in Chatham County. The study included 59 different roadways divided into 1,049 directional links bound by a traffic signal, stop sign, or major cross street.

Through the use of a GPS, the travel time runs and resulting delay values pinpoint congested areas. By collecting position and speed data every second, areas of delay were highlighted. This data, coupled with geo-referenced digital video of the roadway system, provide the needed reference material to prepare recommendations that are focused around the problem areas.

Through the efforts in multiple public meetings, various performance measures have been developed. These include the use of what will be called congestion index (CI) which is the % of posted speed and approach level-of-service (LOS). LOS is calculated for arterials based on the delay encountered on each link. The delay is based on comparing the average actual travel time for each time period against the theoretical travel time if one was able to drive unconstrained at the posted speed limit with no stops due to signals or other traffic control devices.

LOS is a standard measure established in the Highway Capacity Manual (HCM) and has pre-established thresholds for each level. This is also true for what the HCM calls % below posted speed limit. But, the levels indicated in the manual are typically related to larger, more congested regions. Therefore, since FHWA allows the local jurisdictions to

establish their own performance measures and thresholds, one additional performance measure was established together with the steering committee and public meetings. In addition to LOS one other performance measure used to indentify congestion was congestion index. Congestion index is a ratio of actual speed to posted speed (i.e. less than 70% posted speed equals congestion).

1.1 Key Findings

Based on this criterion, of the 589 directional miles of roadways studied, 531.7 miles were LOS A-C and 57.1 miles were congested (LOS D-F). Therefore, for the 2004 CMS performed during the winter season, 90.3% of the roadways operated within an acceptable range.

Figure E-1 illustrates the segments found to be congested in either the AM or PM time period.

The majority of the segments found to be congested this season were on roadways that include planned/programmed capacity improvements. This was the case for 24% of the congested segments during both the AM and PM periods.

The next highest portion of congested segments would benefit from improved signal optimization and coordination with adjacent signals. Of the roadway segments that were congested, 23% and 15% of them would improve to acceptable levels with updated signal timing, for the AM and PM periods, respectively.

The other large group of congested segments fall on roadways classified as constrained corridors. Capital improvements on these roads may be limited, thus operational improvements should be considered to maximize the throughput. These corridors include canopy roadways. These are a major attraction in Savannah and should be maintained.

1.2 Recommendations

Recommended improvements for congested AM segments are listed in **Table E-1** and congested PM segments are listed in **Table E-2.** The AM and PM congested segments are also shown on **Figure E-1**. The 20 most congested locations along with potential improvements are listed in **Table E-3**.

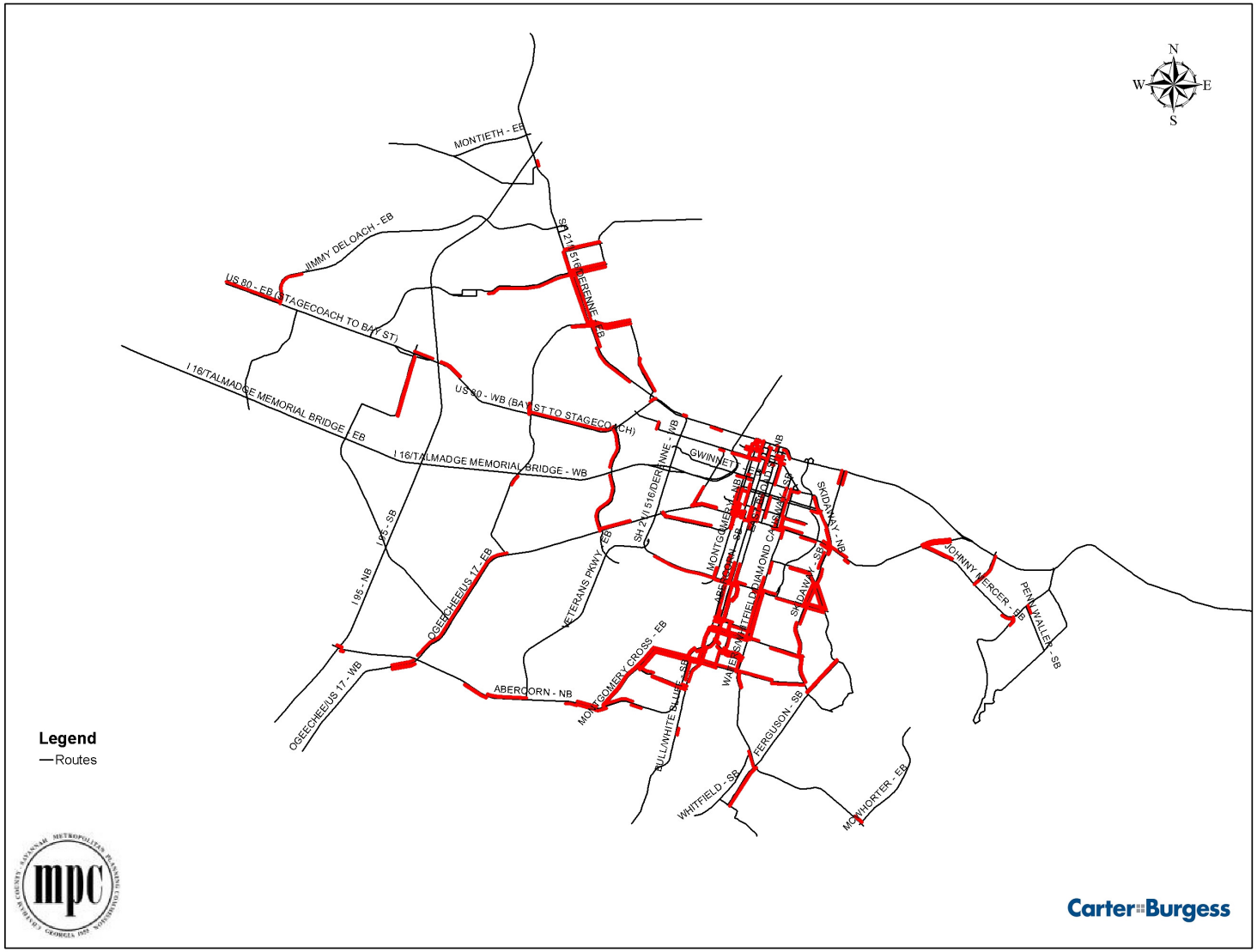


Figure E-1 – Congested Segments-LOS D-F for Either AM or PM peak Period

Table E-1 - Summary of Congested Segments (LOS D-F)-AM Peak Hour

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
MONTGOMERY CROSS - EB	Tibet Ave to Abercorn	5003002	5003	8340.3	23.8	35	0.68	85.8	67.0	Signal	F	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn, study approach at Abercorn
	Abercorn to White Bluff	5003003	5003	1567.6	14.4	35	0.41	57.7	42.8	Signal	E	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
	White Bluff to Hodgeson Memorial	5003004	5003	2376.4	23.1	35	0.66	36.1	23.3	Signal	D	Signal Timing	Delays along Montgomery between Abercorn and Waters, Coordinate signals
MONTGOMERY CROSS - WB	Sallie Mood to Waters	5004002	5004	4851.7	24.1	45	0.53	73.7	37.6	Signal	E	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
	White Bluff to Abercorn	5004005	5004	1567.6	14.8	35	0.42	52.7	34.8	Signal	D	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn, study approach at Abercorn
	Tibet Ave to Abercorn	5004007	5004	7029.6	23.3	35	0.67	75.1	47.7	Signal	E	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn
MALL BLVD - EB	Hodgeson Memorial to Waters	5005004	5005	3116.6	24.2	40	0.60	37.7	22.5	Signal	D	T intersection with Dual left	Delays caused by signal timing, sufficient capacity for all movements
MALL BLVD - WB	Waters to Hodgeson Memorial	5006002	5006	3116.5	24.4	40	0.61	37.6	21.3	Signal	D	Signal Operations, NB right turn	NB right turn may free up time for Mall Blvd traffic along with optimized timing
	Mall Way to Abercorn	5006004	5006	889.8	9.6	40	0.24	76.1	57.5	Signal	E	Excessive delays back through Mall Way	Consider change in lane use for shared dual left, study addition of NB right turn
EISENHOWER - WB	Seawright to Waters	5008004	5008	1520.6	15.6	45	0.35	48.0	28.7	Signal	D	Delays throughout the corridor to Truman	Coordinate timing throughout corridor
	Abercorn to White Bluff	5008007	5008	874.6	5.2	40	0.13	99.9	79.0	Signal	F	West Approach will improve with east side widening	PI #0002924 will widen to 4L divided between Abercorn and Truman, Consider SB continuous flow signal
52ND ST/MILLS - WB	Liberty to Victory	5010004	5010	1108	12.7	40	0.32	43.2	20.3	Signal	D	Preference given to Ogeechee traffic	Signal Operations - Coordination between Liberty and Ogeechee for minimum system delay
OGEECHEE/US 17 - EB	Chevis to SH 204 EB Ramp	5011003	5011	3154.4	25.6	45	0.57	37.4	15.8	Signal	D	Currently under construction	Study next CMS
37TH ST - EB	Waters to Bee Rd	5013015	5013	2817.4	20.4	35	0.58	44.5	19.5	Signal	D	Secondary street on fringe of urban core	This is the end of route with a Stop sign, delays acceptable on fringe in this case
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	West Boundary to MLK	5021009	5021	1483.5	15.3	35	0.44	45.9	31.0	Signal	D	Eastbound Delays	Coordinate Westbound traffic between Montgomery and MLK to max efficiency and allow more time for EB
	Montgomery to Whitaker	5021011	5021	1044.5	13.9	35	0.40	39.9	22.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations

AM Congested Segments Cont.
Table E-1

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Randolph to East Broad St	5022006	5022	727.7	13.5	35	0.39	26.2	13.8	Cross Street	E	Canopy - Constrained Corridor, Urban Core	Constrained Corridor - Improvements limited to Optimizing Signals, Delays acceptable in Core
OGLETHORPE - EB	Price to East Broad St	5023009	5023	647.8	8.5	25	0.34	38.1	28.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
OGLETHORPE - WB	Montgomery to MLK	5024008	5024	363	3.2	25	0.13	69.7	56.3	Signal	E	Short distance between signals	Coordinate signals between Montgomery and Fahm
	MLK to Fahm	5024009	5024	954	12.0	35	0.34	38.0	23.3	Signal	D	Short distance between signals	Coordinate signals between Montgomery and Fahm
US 80 - WB (BAY ST TO STAGECOACH)	Coleman to I-95 NB Ramp	5028005	5028	3267.4	23.6	45	0.52	45.6	31.7	Signal	D	Signal not coordinated with Coleman or Rogers	Coordinate signals between Coleman and Rogers, need to account for Auto Plant
JIMMY DELOACH - EB	US 80 to Prescott	5029001	5029	6215.1	45.4	55	0.83	36.0	0.0	TWSC	E	No delays observed, just slow start-ups from US 80	No improvements necessary
SH 21/I 516/DERENNE - EB	SH 30 to Cross Gate	5035009	5035	3013.1	28.1	55	0.51	70.8	31.8	Signal	E	Currently detour due to construction on SR 25	Study next CMS
	Cross Gate to SH 25	5035010	5035	7509.7	29.3	55	0.53	138.1	64.0	Signal	F	Currently detour due to construction on SR 25	Study next CMS
	Liberty to Montgomery	5035024	5035	8966.9	18.8	54	0.35	218.0	114.0	Cross Street	E	End of Freeway Section, Delays expected	Excessive demand from freeway, delays unavoidable, Consider in E-W Study
	Montgomery to Bull	5035025	5035	1374.5	21.0	40	0.53	60.1	39.0	Signal	E	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
	Bull to Abercorn	5035026	5035	869.4	5.5	40	0.14	98.6	72.0	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
	Paulsen to Waters	5035030	5035	1059	22.6	40	0.57	50.1	39.5	Signal	D	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
SH 21/I 516/DERENNE - WB	La Roche to Skidaway	5036002	5036	2702.4	17.8	32	0.56	65.7	45.4	Signal	E	1 lane section, long delays at Skidaway	Consider widening approach to provide 2 thru lanes to match west side of int
BAY ST/GEN MC INTOSH/ PRESIDENT/ISLAND EXPWY - WB	I-516 to Lathrop	5042023	5042	397.7	10.3	35	0.29	26.0	15.7	Cross Street	E	Closely spaced signals between Graham and Lathrop	Coordinate signals between Graham and Lathrop
	Main St to Burnsed	5042026	5042	799.2	13.6	35	0.39	42.5	31.8	Signal	D	Closely spaced signals and RR crossing	Coordinate signals between Burnsed and Market
ROGERS/QUACCO - NB	Pine Barren to US 80 EB	5045010	5045	8502.8	26.6	39	0.68	73.4	66.0	TWSC	F	Short Distance between US 80 E/W	Signal Operations - Coordinate signals between US 80 E/W

AM Congested Segments Cont.
Table E-1

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
DEAN FOREST/BOURNE - NB	Southridge to I-16 EB Ramp	5051002	5051	1530.4	23.2	45	0.52	31.6	21.7	Cross Street	D	High truck volumes	Priority IA - Widen from 2-4 between US 17 and I-16 - Consider Single Point Urban Interchange (SPUI)
	Garden City City Limit to SH 21	5051008	5051	2474.6	18.9	45	0.42	120.0	84.3	Cross Street	E	Funded Project for construction FY 2004-06 (PRC)	PI #562165 will widen to include center turn lane, lengthen bay for EB Rt across RR tracks
DEAN FOREST/BOURNE - SB	SH 25 to SH 21	5052002	5052	5674.7	22.9	45	0.51	104.9	93.8	Signal	F	Heavy Truck Traffic, construction detour	High Percentage of Trucks and many stopped for queuing at Port - Widen shoulder to provide storage
MARTIN LUTHER KING - NB	Exchange/52nd St to Victory	5059001	5059	1908	16.9	35	0.48	41.1	21.7	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - SB	Oglethorpe to Liberty	5060004	5060	1036.5	10.2	35	0.29	49.9	35.9	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
	37th St to Victory	5060011	5060	1760.9	17.1	35	0.49	36.4	25.0	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MONTGOMERY - NB	Franklin SQ N to Bay St	5061017	5061	247.1	5.9	30	0.20	31.8	20.6	Cross Street	F	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
MONTGOMERY - SB	Church Driveway to DeRenne	5062010	5062	1359.8	17.3	35	0.49	58.6	43.4	Signal	E	Canopy - Constrained Corridor, Minor Approach	Consider the addition of a right turn bay
WHITAKER - SB	West Park to Henry	5064007	5064	607	10.3	35	0.29	25.8	16.7	Flashing Yellow	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Anderson to 37th St	5064009	5064	2059.4	17.4	35	0.50	47.1	32.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	43th St to Victory	5064011	5064	898.6	15.5	35	0.44	26.5	14.7	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
BULL/WHITE BLUFF - NB	Television Circle to Montgomery Cross	5065010	5065	3378	18.5	40	0.46	71.5	45.2	Signal	E	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
	Mall Driveway to Abercorn	5065012	5065	710.5	7.1	40	0.18	69.9	48.0	Signal	E	Abercorn volumes very heavy	NB/SB left turns very light, consider restricting them, coordinate signal with Mall Dr
	Hampstead to DeRenne	5065017	5065	1250	8.2	35	0.23	91.2	69.8	Signal	F	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations, study in E-W study

AM Congested Segments Cont.
Table E-1

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BULL/WHITE BLUFF - SB	40th St to Victory	5066001	5066	950	9.8	35	0.28	45.7	28.5	Cross Street	F	Excessive delay at Victory and over to Montgomery	Update and coordinate signal timing on Victory from MLK to the east
	61st St to DeRenne	5066005	5066	3527.4	23.0	32	0.72	35.5	22.8	Signal	D	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations
	Eisenhower to Abercorn	5066010	5066	2720.2	26.2	40	0.66	44.8	33.5	Signal	D	Canopy - Constrained Corridor, Minor Approach	NB/SB left turns very light, consider restricting them, add NB Right turn overlap
	Mall Driveway to Montgomery Cross	5066012	5066	1406	14.0	40	0.35	50.8	34.4	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ABERCORN - NB	I-95 to Gateway	5069003	5069	396	17.6	55	0.32	25.9	17.0	Cross Street	E	Delays between I-95 S and Gateway	Priority II - Operational at I-95, Coordinate signals between I-95 South ramp and Gateway
	Pine Grove to King George	5069006	5069	3413.4	26.2	55	0.48	103.9	59.5	Signal	F	Excessive eastbound delays at King George	Priority II - Widen 4-6 from US 17 to King George, accel lane for EB rights, widen King George appr
	Rio to Apache	5069010	5069	2685.1	29.3	45	0.65	35.9	21.0	Signal	D	Excessive delays at Apache	Priority IB - Operational, Priority IC - Widen from Rio to Truman, Coordinate between Rio and King George
	Mall Blvd to Eisenhower	5069022	5069	1555.4	27.3	45	0.61	37.1	28.8	Signal	D	Poor signal coordination	Coordinate signals along Abercorn
	Private Drive to DeRenne	5069028	5069	729.3	5.6	40	0.14	83.8	66.2	Signal	F	Excessive Intersection Delays	Priority IB - Operational - Optimize Derenne and Abercorn will improve, NB right turn lane planned
	Washington to Victory	5069032	5069	1167.4	12.9	35	0.37	38.5	23.2	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ABERCORN - SB	37th St to Victory	5070002	5070	1716.6	14.7	35	0.42	64.1	41.8	Signal	E	Urban Core	Constrained Corridor - Optimize Victory then Abercorn will benefit from more time
	63rd St to DeRenne	5070006	5070	2759.3	19.5	40	0.49	50.3	32.3	Signal	D	Excessive Intersection Delays	Optimize Derenne and Abercorn, NB right turn lane planned
	Mall Driveway to Montgomery Cross	5070016	5070	1638.4	20.7	45	0.46	35.1	23.3	Signal	D	Oversaturated Intersection	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn on Montgomery Cross
STILES - SB	Cloverdale to US 17	5074004	5074	3194.9	21.4	35	0.61	50.5	44.5	Signal	D	Delay for left turning vehicles	GDOT will be installing a signal for SB left turns
SH 25 (CROSSGATE/ BOURNE) - NB	SH 21 Spur to Port Authority	5079004	5079	2073.9	26.3	35	0.75	80.8	58.0	Signal	F	Sufficient Roadway Capacity but High Delays	Signal Operations - High Truck Volumes and construction detour, study again next CMS
JOHNNY MERCER - WB	White Marsh to US 80	5084009	5084	4488	28.8	45	0.64	41.7	25.2	Signal	D	Canopy - Constrained Corridor	Priority II - Operational, consider WB US 80 Continuous movement

AM Congested Segments Cont.
Table E-1

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
WALTHOUR/WILLMINGTON ISLAND- SB	Wilminghton Island to Johnny Mercer	5086007	5086	1219.7	16.7	35	0.48	38.8	25.7	Cross Street	D	Canopy - Constrained Corridor	Constrained Corridor - Optimize Signal, add channelized NB right turn, Access Mgmt with WB cont flow
BRYAN WOODS - EB	Johnny Mercer to US 80	5087001	5087	4918.8	28.5	45	0.63	46.0	32.0	Signal	D	Minor Approach at Island Expressway	Cross Street delays expected
HODGESON MEMORIAL - SB	Stephenson to Eisenhower	5090001	5090	1368.5	10.5	35	0.30	66.8	43.0	Signal	E	Currently under construction on Stephenson	Study next CMS
	Mall Way to Montgomery Cross	5090004	5090	2054.7	24.4	35	0.70	42.4	36.0	Signal	D	Signal Operations, good capacity for all mvmts	Optimize signal timing at Montgomery
STEPHENSON - WB	Habersham to Abercorn	5092004	5092	702.3	5.4	30	0.18	99.6	78.0	Signal	F	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
	Abercorn to White Bluff	5092005	5092	793.1	9.5	30	0.32	49.5	37.3	Signal	D	Consistent WB Delays	Consider widening WB approach to allow 2 through lanes
HABERSHAM - NB	Johnston to DeRenne	5093002	5093	2430.1	13.8	35	0.39	82.6	67.7	Cross Street	E	Minor Approach to SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
HABERSHAM - SB	63rd St to DeRenne	5094006	5094	2741.8	16.3	35	0.46	66.4	43.3	Signal	E	Minor Approach at SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
	Johnston to Stephenson	5094008	5094	3189.1	17.5	35	0.50	66.7	44.3	Cross Street	D	Currently under construction on Stephenson	Stephenson widening will help Habersham
BONNY BRIDGE - WB	SH 25 to SH 21	5096002	5096	4947.8	28.2	40	0.71	46.4	35.3	Signal	D	Delays at SH 21, Minor approach	Delays expected at minor appr to SH 21, Optimize Signal
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	SH 25 to SH 21	5098002	5098	4673.4	20.9	41	0.51	78.8	48.3	Signal	E	Currently detour due to construction on SR 25	Study next CMS
HARMON - SB	Gwinnett to Henry	5106003	5106	1564.1	14.1	25	0.57	38.3	38.0	TWSC	E	Urban Core	Cross Street delays expected with priority given to east-west
	Henry to Anderson	5106004	5106	321.2	4.8	25	0.19	37.6	30.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions

AM Congested Segments Cont.
Table E-1

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Green Island to Landings/Village	5107002	5107	1197.7	14.2	40	0.35	45.6	28.0	AWSC	E	Delays at Landings/Village	Priority IC - Widen 2-4 from Ferguson to McWhorter
	City Limit to Montgomery Cross	5107010	5107	2227.8	18.4	45	0.41	54.1	36.0	City Limit	E	Heavy left turn volumes overflow storage bays	Optimize signal timing to maximize flowrate for left turn vehicles, this will free-up green time for other phases
	Stephenson to DeRenne	5107014	5107	5497.7	18.7	35	0.53	109.4	49.7	Signal	F	Corridor will improve with extension of Truman	Study next CMS, review in E-W Study
	63rd St to Columbus	5107017	5107	1490.8	13.2	35	0.38	47.5	35.0	Signal	D	Short Distance between Columbus and LaRoche	Coordinate signals between Columbus and LaRoche
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	37th St to Victory	5108005	5108	1705.4	12.8	29	0.44	66.7	41.0	Signal	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	65th St to DeRenne	5108012	5108	1973.7	15.0	35	0.43	58.8	41.3	Signal	E	Corridor will improve with extension of Truman	Study next CMS
FERGUSON - SB	La Roche to Skidaway	5114001	5114	6100.5	26.2	40	0.65	56.7	26.8	TWSC	F	Canopy - Constrained Corridor	Constrained Corridor - Secondary roadway for access, higher speeds not desired
SKIDAWAY - NB	Montgomery Cross to Eisenhower	5115004	5115	3950.4	19.9	35	0.57	67.3	44.0	Signal	E	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
	Colorado to Victory	5115010	5115	953.4	15.7	35	0.45	39.6	25.3	Signal	D	Delay at Victory, sufficient capacity for all mvmt	No dedicated right turn bay, may consider, coordinating Victory timing will improve int ops
SKIDAWAY - SB	Henry/Anderson to 36th St	5116002	5116	2853.5	20.4	35	0.58	42.9	16.0	Signal	D	Short Distance between Penn and 36th St	Coordinate signals between Penn and 36th St
	36th St to Victory	5116003	5116	2607.6	13.6	35	0.39	83.8	59.3	Signal	F	Delay at Victory, sufficient capacity for all mvmt	No dedicated right turn bay, may consider, coordinating Victory timing will improve int ops
	La Roche to DeRenne	5116007	5116	3331.7	13.3	35	0.38	126.9	85.5	Signal	F	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
	Bonna Bella to Eisenhower	5116009	5116	4611.3	27.5	40	0.69	47.3	25.3	Signal	D	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
TIBET - EB	Largo to Abercorn	5121002	5121	4218.9	23.5	30	0.79	34.8	28.3	AWSC	D	Minor Approach at Abercorn	TIP #532570 for Intersection Improvement
	Abercorn to White Bluff	5121003	5121	704.2	7.6	35	0.22	51.5	38.5	Signal	D	Minor Approach at Bill White	Cross street delays expected
TIBET - WB	White Bluff to Abercorn	5122001	5122	704.2	7.4	35	0.21	77.8	61.0	Signal	E	Minor Approach at Abercorn	TIP #532570 for Intersection Improvement
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Harry Truman NB Ramp to Skidaway	5124003	5124	4533.9	21.5	30	0.72	46.9	35.3	Signal	D	Delays at Skidaway	Priority III - Operational between Waters and Skidaway, will improve with Skidaway widening, Optimize signal timing

AM Congested Segments Cont.
Table E-1

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
VICTORY/SAFOLD/ ISLANDEXPRESSWAY/US 80 - EB	Johnny Mercer to White Marsh	5129027	5129	3924.1	29.4	55	0.53	49.8	29.0	Signal	D	Signal Operations - sufficient capacity	Coordinate signals between White Marsh and Johnny Mercer
VICTORY/SAFOLD/ ISLANDEXPRESSWAY/US 80 - WB	White Marsh to Johnny Mercer	5130013	5130	3924.1	36.7	55	0.67	36.5	14.7	Signal	D	Signal Operations - sufficient capacity	Coordinate signals between White Marsh and Johnny Mercer
	Thunderbolt City Limit to Commercial Driveway	5130019	5130	2207.9	18.7	40	0.47	42.8	19.0	Cross Street	D	Delay at Victory, sufficient capacity for all mvmt	Coordinate signal with Skidaway
	Commercial Driveway to Skidaway	5130020	5130	542.1	5.4	40	0.13	61.3	42.7	Signal	E	Delay at Skidaway, sufficient capacity	Dedicated right turn bay both sides, coordinating Victory timing will improve int ops
	Hopkins to Stiles	5130037	5130	3300.2	21.5	35	0.61	53.9	35.0	Signal	D	Delays at intersection with Ogeechee	Study intersection for possible signalization

Table E-2 - Summary of Congested Segments (LOS D-F)-PM Peak Hour

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
MONTGOMERY CROSS - EB	Tibet Ave to Abercorn	5003002	5003	8340.3	20.9	35	0.60	113.1	89.0	Signal	F	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn, study approach at Abercorn
	Abercorn to White Bluff	5003003	5003	1567.6	11.8	35	0.34	58.6	41.7	Signal	E	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
	Sallie Mood to Skidaway	5003007	5003	4487.2	24.6	45	0.55	58.0	27.3	Signal	E	T intersection limits capacity	Intersection capacity if limited due to the T configuration, optimize signal operations
MONTGOMERY CROSS - WB	Waters to Hodgeson Memorial	5004003	5004	3078.1	19.1	35	0.55	53.5	38.3	Signal	D	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
	Hodgeson Memorial to White Bluff	5004004	5004	2376.4	17.5	35	0.50	46.1	32.7	Signal	D	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
	Abercorn to Tibet Ave	5004006	5004	8340.3	28.6	35	0.82	37.6	7.0	Signal	D	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn
	Tibet Ave to Abercorn	5004007	5004	7029.6	25.3	35	0.72	60.8	14.8	Signal	E	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn
MALL BLVD - EB	Mall Way to Hodgeson Memorial	5005003	5005	871.9	10.1	40	0.25	48.6	30.7	Signal	D	High Volume of Right turning Mall vehicles	Geometrics - Add right turn bay for existing channelized movement
	Hodgeson Memorial to Waters	5005004	5005	3116.6	24.4	40	0.61	35.7	16.7	Signal	D	T intersection with Dual left	Delays caused by signal timing, sufficient capacity for all movements
MALL BLVD - WB	Mall Way to Abercorn	5006004	5006	889.8	5.0	40	0.12	179.2	138.0	Signal	F	Planned Intersection TIP	Consider change in lane use for shared dual left, study addition of NB right turn
EISENHOWER - EB	White Bluff to Abercorn	5007001	5007	874.6	5.9	40	0.15	84.2	60.8	Signal	F	West Approach will improve with east side widening	PI #0002924 will widen to 4L divided between Abercorn and Truman, Consider SB continuous flow signal
	Abercorn to Hodgeson Memorial	5007002	5007	1679.8	10.5	40	0.26	84.5	57.0	Signal	F	Delays throughout the corridor to Truman	Priority IC - Operational between Abercorn and Truman widen to include center turn lane, Coordinate timing throughout corridor
	Sallie Mood to Skidaway	5007006	5007	4273.3	25.8	45	0.57	58.4	35.0	Signal	E	Corridor will improve with extension of Truman	Study next CMS
EISENHOWER - WB	Hodgeson Memorial to Abercorn	5008006	5008	1679.8	14.1	40	0.35	60.8	38.0	Signal	E	Delays throughout the corridor to Truman	Priority IC - Operational between Abercorn and Truman widen to include center turn lane, Coordinate timing throughout coridor
	Abercorn to White Bluff	5008007	5008	874.6	7.6	40	0.19	73.5	55.4	Signal	E	West Approach will improve with east side widening	PI #0002924 will widen to 4L divided between Abercorn and Truman, Consider SB continuous flow signal

PM Congested Segments Cont.
Table E-2

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
52ND ST/MILLS - WB	Hopkins to Liberty	5010003	5010	6113.7	30.9	43	0.72	43.6	14.8	Signal	D	Delays between Hopkins and Victory -1 lane approach and short distance between Liberty and Victory	Signal Operations - Coordination between Hopkins and Victory
	Liberty to Victory	5010004	5010	1108	8.6	40	0.22	68.1	42.8	Signal	E	Preference given to Ogeechee traffic	Signal Operations - Coordination between Liberty and Ogeechee for minimum system delay
OGEECHEE/US 17 - EB	Chevis to SH 204 EB Ramp	5011003	5011	3154.4	22.8	45	0.51	51.9	29.4	Signal	D	Currently under construction	Study next CMS
OGEECHEE/US 17 - WB	Gamble to Chatham Pkwy	5012003	5012	4079.5	26.2	45	0.58	54.7	39.8	Signal	D	Study further for WB and SB right turn bays	Signal Operations - sufficient roadway capacity, excessive intersection delay
	Garden City City Limit to Quacco	5012006	5012	12561.7	20.0	45	0.44	324.8	85.5	Cross Street	E	Currently under construction	Study next CMS
	Quacco to SH 204 WB Ramp	5012007	5012	6651.9	19.0	40	0.47	138.7	53.0	Signal	F	Currently under construction	Study next CMS
	SH 204 EB Ramp to Chevis	5012009	5012	3154.4	20.4	45	0.45	75.1	21.0	Signal	E	Currently under construction	Study next CMS
GWINNETT - EB	May to MLK	5019006	5019	1029.5	15.3	35	0.44	35.2	23.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Jefferson to Barnard	5019009	5019	367.8	12.6	25	0.50	11.6	5.5	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Waters to Wheaton	5019021	5019	773.1	11.2	30	0.37	30.7	17.7	TWSC	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
GWINNETT - WB	Jefferson to Montgomery	5020014	5020	283.5	11.9	25	0.48	13.8	10.3	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	East Lathrop to Stiles	5021006	5021	603.2	9.2	35	0.26	35.8	24.0	Signal	D	Short distance between East Lathrop and Stiles	Signal Operations - Coordinate signals between East Lathrop and Stiles
	I-16 to West Boundary	5021008	5021	1096.5	17.3	35	0.49	27.3	12.3	Cross Street	D	Freq right turns	Construct right turn bay to remove turning traffic from 1 lane approach
	West Boundary to MLK	5021009	5021	1483.5	13.5	35	0.39	53.4	38.5	Signal	D	Eastbound Delays	Coordinate Westbound traffic between Montgomery and MLK to max efficiency and allow more time for EB
	MLK to Montgomery	5021010	5021	344.3	15.4	35	0.44	35.2	25.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
	Montgomery to Whitaker	5021011	5021	1044.5	12.8	35	0.37	52.0	33.7	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
	Habersham to Price	5021015	5021	304	5.0	35	0.14	41.3	24.0	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Randolph to East Broad St	5022006	5022	727.7	15.8	35	0.45	33.4	21.3	Cross Street	D	Canopy - Constrained Corridor, Urban Core	Constrained Corridor - Improvements limited to Optimizing Signals, Delays acceptable in Core

PM Congested Segments Cont.
Table E-2

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
OGLETHORPE - EB	Price to East Broad St	5023009	5023	647.8	6.1	25	0.25	68.4	52.8	Signal	E	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
OGLETHORPE - WB	Whitaker to Montgomery	5024007	5024	1041.8	11.0	25	0.44	35.9	24.8	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
US 80 - WB (BAY ST TO STAGECOACH)	Heidt to SH 307 - Bourne	5028003	5028	11979.2	37.5	45	0.83	38.7	33.0	Signal	D	Excessive delay at Dean Forest Rd	All the delay occurs at the intersection and it appears this could be minimized through signal optimization
	Coleman to I-95 NB Ramp	5028005	5028	3267.4	26.4	45	0.59	38.4	16.8	Signal	D	Signal not coordinated with Coleman or Rogers	Coordinate signals between Coleman and Rogers, need to account for Auto Plant
	Parsons to Rogers	5028007	5028	2662	22.2	45	0.49	44.6	18.0	Signal	D	Poor signal coordination between I-95 and Rogers	Coordinate signals between I-95 and Rogers
	Jimmy Deloach to Effingham County	5028012	5028	7829.1	39.8	55	0.72	38.6	0.0	TWSC	E	Minor Delays in the PM Period	Priority I - Widen from 2-5 lanes from County Line to Cherry
SH 21/I 516/DERENNE - EB	SH 30 to Cross Gate	5035009	5035	3013.1	18.1	55	0.33	84.4	57.0	Signal	F	Currently detour due to construction on SR 25	Study next CMS
	Cross Gate to SH 25	5035010	5035	7509.7	33.0	55	0.60	72.3	43.0	Signal	E	Currently detour due to construction on SR 25	Study next CMS
	Smith to Brampton	5035012	5035	6510.3	35.6	55	0.65	43.8	24.5	Signal	D	PM Delays for EB	Long Range Plan calls for Widening SH 21, Consider continuous EB intersection operations
	Montgomery to Bull	5035025	5035	1374.5	6.0	40	0.15	140.9	103.0	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
	Abercorn to Habersham	5035027	5035	733.1	4.7	40	0.12	94.0	74.5	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
	Paulsen to Waters	5035030	5035	1059	8.2	40	0.20	91.5	70.0	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
	Skidaway to La Roche	5035034	5035	2702.5	23.6	40	0.59	36.4	15.3	Signal	D	Sufficient Capacity for turning movements	Consider widening to match section to West

PM Congested Segments Cont.
Table E-2

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
SH 21/I 516/DERENNE - WB	La Roche to Skidaway	5036002	5036	2702.4	19.2	40	0.48	53.6	31.7	Signal	D	1 lane section, long delays at Skidaway	Consider widening approach to provide 2 thru lanes to match west side of int
	Harry Truman SB Ramp to Waters	5036005	5036	1925.4	14.0	40	0.35	68.7	50.7	Signal	E	PM WB needs progression from Truman to Bull	Coordinate signal timing for outbound PM traffic through Bull, Consider in E-W Study
	Reynolds to Habersham	5036008	5036	1275.4	10.8	40	0.27	75.7	44.0	Signal	E	PM WB needs progression from Truman to Bull	Coordinate signal timing for outbound PM traffic through Bull
	Smith to SH 25	5036025	5036	3445.5	22.8	55	0.41	77.7	34.4	Signal	E	Excessive delays due to high truck volumes	Priority IB - Widen 4-6, Heavy PM volumes with Truck traffic - construct storage for trucks
	SH 25 to Cross Gate	5036026	5036	7509.7	26.6	55	0.48	135.5	55.8	Signal	F	Currently under construction on SR 25	Study next CMS
BAY ST/GEN MCINTOSH /PRESIDENT/ISLAND EXPWY - EB	East Broad St to President	5041021	5041	1850.7	17.8	40	0.44	42.1	17.5	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
BAY ST/GEN MCINTOSH/ PRESIDENT/ISLAND EXPWY - WB	I-516 to Lathrop	5042023	5042	397.7	15.9	35	0.45	20.2	13.0	Cross Street	D	Closely spaced signals between Graham and Lathrop	Coordinate signals between Graham and Lathrop
ROGERS/QUACCO - NB	Pine Barren to US 80 EB	5045010	5045	8502.8	23.5	39	0.60	102.0	79.8	TWSC	F	Short Distance between US 80 E/W	Signal Operations - Coordinate signals between US 80 E/W
DEAN FOREST/ BOURNE - NB	Garden City City Limit to SH 21	5051008	5051	2474.6	26.1	45	0.58	67.7	36.0	Cross Street	D	Funded Project for construction FY 2004-06 (PRC)	PI #562165 will widen to include center turn lane, lengthen bay for EB Rt across RR tracks
DEAN FOREST/BOURNE - SB	SH 25 to SH 21	5052002	5052	5674.7	27.8	45	0.62	66.7	38.8	Signal	E	Heavy Truck Traffic, construction detour	High Percentage of Trucks and many stopped for queuing at Port - Widen shoulder to provide storage
	Old Louisville Rd to US 80	5052006	5052	1555.5	13.1	45	0.29	66.7	49.3	Flashing Yellow	F	Excessive Delay at US 80	Priority IC - Operational will improve corridor operations at US 80
CHATHAM PKWY - SB	US 80 to I-16 WB Ramp	5056002	5056	5761.9	31.8	45	0.71	36.6	17.0	Signal	D	Lone signal after long distance uncontrolled leads to random arrivals	Signal Operations - sufficient roadway capacity, excessive intersection delay
	I-16 EB Ramp to US 17	5056004	5056	8648.5	33.5	45	0.74	54.7	41.7	Signal	D	Study further for WB and SB right turn bays	Signal Operations - sufficient roadway capacity, excessive intersection delay

PM Congested Segments Cont.
Table E-2

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
SH 21/I 516/DERENNE - WB	La Roche to Skidaway	5036002	5036	2702.4	19.2	40	0.48	53.6	31.7	Signal	D	1 lane section, long delays at Skidaway	Consider widening approach to provide 2 thru lanes to match west side of int
	Harry Truman SB Ramp to Waters	5036005	5036	1925.4	14.0	40	0.35	68.7	50.7	Signal	E	PM WB needs progression from Truman to Bull	Coordinate signal timing for outbound PM traffic through Bull, Consider in E-W Study
	Reynolds to Habersham	5036008	5036	1275.4	10.8	40	0.27	75.7	44.0	Signal	E	PM WB needs progression from Truman to Bull	Coordinate signal timing for outbound PM traffic through Bull
	Smith to SH 25	5036025	5036	3445.5	22.8	55	0.41	77.7	34.4	Signal	E	Excessive delays due to high truck volumes	Priority IB - Widen 4-6, Heavy PM volumes with Truck traffic - construct storage for trucks
	SH 25 to Cross Gate	5036026	5036	7509.7	26.6	55	0.48	135.5	55.8	Signal	F	Currently under construction on SR 25	Study next CMS
BAY ST/GEN MCINTOSH /PRESIDENT/ISLAND EXPWY - EB	East Broad St to President	5041021	5041	1850.7	17.8	40	0.44	42.1	17.5	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
BAY ST/GEN MCINTOSH/ PRESIDENT/ISLAND EXPWY - WB	I-516 to Lathrop	5042023	5042	397.7	15.9	35	0.45	20.2	13.0	Cross Street	D	Closely spaced signals between Graham and Lathrop	Coordinate signals between Graham and Lathrop
ROGERS/QUACCO - NB	Pine Barren to US 80 EB	5045010	5045	8502.8	23.5	39	0.60	102.0	79.8	TWSC	F	Short Distance between US 80 E/W	Signal Operations - Coordinate signals between US 80 E/W
DEAN FOREST/ BOURNE - NB	Garden City City Limit to SH 21	5051008	5051	2474.6	26.1	45	0.58	67.7	36.0	Cross Street	D	Funded Project for construction FY 2004-06 (PRC)	PI #562165 will widen to include center turn lane, lengthen bay for EB Rt across RR tracks
DEAN FOREST/BOURNE - SB	SH 25 to SH 21	5052002	5052	5674.7	27.8	45	0.62	66.7	38.8	Signal	E	Heavy Truck Traffic, construction detour	High Percentage of Trucks and many stopped for queuing at Port - Widen shoulder to provide storage
	Old Louisville Rd to US 80	5052006	5052	1555.5	13.1	45	0.29	66.7	49.3	Flashing Yellow	F	Excessive Delay at US 80	Priority IC - Operational will improve corridor operations at US 80
CHATHAM PKWY - SB	US 80 to I-16 WB Ramp	5056002	5056	5761.9	31.8	45	0.71	36.6	17.0	Signal	D	Lone signal after long distance uncontrolled leads to random arrivals	Signal Operations - sufficient roadway capacity, excessive intersection delay
	I-16 EB Ramp to US 17	5056004	5056	8648.5	33.5	45	0.74	54.7	41.7	Signal	D	Study further for WB and SB right turn bays	Signal Operations - sufficient roadway capacity, excessive intersection delay
MARTIN LUTHER KING - NB	Exchange/52nd St to Victory	5059001	5059	1908	15.4	35	0.44	45.2	25.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
	37th St to Anderson	5059003	5059	2045.8	17.5	35	0.50	42.8	30.0	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
	Broughton to Bay St	5059011	5059	771.2	10.0	35	0.29	46.8	30.7	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor

PM Congested Segments Cont.
Table E-2

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
MARTIN LUTHER KING - SB	Broughton to Oglethorpe	5060003	5060	714.8	12.5	35	0.36	39.9	24.4	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
	Oglethorpe to Liberty	5060004	5060	1036.5	10.3	35	0.29	47.1	31.6	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MONTGOMERY - NB	Victory to 37th St	5061007	5061	1832.1	16.0	35	0.46	49.4	25.9	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Oglethorpe to Broughton	5061014	5061	804.2	11.9	30	0.40	40.5	23.2	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Franklin SQ N to Bay St	5061017	5061	247.1	9.4	30	0.31	25.3	14.8	Cross Street	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
MONTGOMERY - SB	37th St to Victory	5062005	5062	1832.1	17.8	35	0.51	36.7	15.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Church Driveway to DeRenne	5062010	5062	1359.8	11.3	35	0.32	73.0	53.3	Signal	E	Canopy - Constrained Corridor, Minor Approach	Consider the addition of a right turn bay
	Franklin SQ N to Franklin SQ S	5062015	5062	317.3	11.9	30	0.40	12.8	0.6	Cross Street	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
WHITAKER - SB	Bay St to Broughton	5064001	5064	852.7	9.6	25	0.38	62.5	42.7	Signal	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Broughton to Oglethorpe	5064002	5064	809.9	15.5	25	0.62	39.9	20.6	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	West Park to Henry	5064007	5064	607	17.3	35	0.49	19.0	9.6	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	43th St to Victory	5064011	5064	898.6	13.3	35	0.38	45.7	28.5	Flashing Yellow	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
BULL/WHITE BLUFF - NB	Willow to Windsor	5065004	5065	901.8	20.5	40	0.51	18.5	8.3	Flashing Yellow	D	Signal Operations inefficient due to offset geometry	Improvements limited due to geometry, optimize signal timing and consider realignment for eastern approach
	Montgomery Cross to Mall Driveway	5065011	5065	1406	22.5	40	0.56	36.1	24.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
	Mall Driveway to Abercorn	5065012	5065	710.5	11.1	40	0.28	75.0	58.0	Signal	E	Abercorn volumes very heavy	NB/SB left turns very light, consider restricting them, coordinate signal with Mall Dr
	Stephenson Ave / Hunter Airfield to Johnston	5065015	5065	3200	23.4	40	0.58	91.9	40.7	Signal	F	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations, Left turn signal control
	Johnston to Hampstead	5065016	5065	1051.8	9.8	40	0.25	103.7	62.3	Signal	F	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
	Hampstead to DeRenne	5065017	5065	1250	4.3	35	0.12	177.4	132.7	Signal	F	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations, study in E-W study

PM Congested Segments Cont.
Table E-2

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BULL/WHITE BLUFF - SB	61st St to DeRenne	5066005	5066	3527.4	23.0	35	0.66	35.8	19.0	Signal	D	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations
	Eisenhower to Abercorn	5066010	5066	2720.2	9.2	40	0.23	179.3	129.3	Signal	F	Canopy - Constrained Corridor, Minor Approach	NB/SB left turns very light, consider restricting them, add NB Right turn overlap
	Mall Driveway to Montgomery Cross	5066012	5066	1406	11.0	40	0.27	71.4	44.6	Signal	E	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
DRAYTON - NB	Victory to 37th St	5067001	5067	1712.5	17.4	35	0.50	39.3	19.5	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
ABERCORN - NB	I-95 to Gateway	5069003	5069	396	8.2	55	0.15	27.7	16.7	Cross Street	F	Delays between I-95 S and Gateway	Priority II - Operational at I-95, Coordinate signals between I-95 South ramp and Gateway
	Pine Grove to King George	5069006	5069	3413.4	28.2	55	0.51	69.3	40.3	Signal	E	Excessive eastbound delays at King George	Priority II - Widen 4-6 from US 17 to King George, accel lane for EB rights, widen King George appr
	City Limit to Rio	5069009	5069	1579.9	26.3	55	0.48	26.9	2.7	City Limit	D	Excessive delays at Rio	Priority IC - Widen 4-6 from Rio to Truman, Optimize from Rio to King George
	Apache to Science	5069011	5069	1401.1	20.1	45	0.45	42.4	29.0	Signal	D	Delays throughout corridor	Priority IC - Widen 4-6 from Rio to Truman, Coordinate between Rio and King George
	Mercy to Largo	5069013	5069	1390.8	11.8	45	0.26	57.6	38.3	Signal	E	Intersection Delays at Largo	Priority IB - Operational, Priority IC - Widen 4-6 from Rio to Truman
	Television Circle to Montgomery Cross	5069018	5069	2959.3	23.9	45	0.53	48.0	29.3	Signal	D	Oversaturated Intersection	Consider NB and SB right turn lanes and optimize signal, Truman ext may relieve some volume
	Mall Driveway to White Bluff	5069020	5069	1234.6	7.3	45	0.16	93.9	71.3	Signal	F	short distance between Mall and White Bluff	Coordinate signals between Mall driveway and White Bluff, review turning movements
	White Bluff to Mall Blvd	5069021	5069	1536.8	9.3	45	0.21	87.2	61.5	Signal	F	Excessive Intersection Delays	Priority IB - Operational, NB right turn lane planned, will free up some time for others
	Mall Blvd to Eisenhower	5069022	5069	1555.4	22.5	45	0.50	65.4	45.0	Signal	E	Poor signal coordination	Coordinate signals along Abercorn
	Eisenhower to Stephenson	5069023	5069	1364.3	16.9	45	0.38	47.2	28.3	Signal	D	Currently under construction on Stephenson	Coordinate signals along Abercorn, Study next CMS after construction
	Lee Blvd to Janet	5069026	5069	1361.3	10.7	45	0.24	91.1	58.4	Signal	F	Poor signal coordination	Coordinate signals along Abercorn
	Janet to Private Drive	5069027	5069	1124.9	24.1	45	0.54	45.5	21.4	Signal	D	Poor signal coordination	Coordinate signals along Abercorn
	Private Drive to DeRenne	5069028	5069	729.3	4.4	40	0.11	107.0	81.6	Signal	F	Excessive Intersection Delays	Priority IB - Operational - Optimize Derenne and Abercorn will improve, NB right turn lane planned

PM Congested Segments Cont.
Table E-2

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ABERCORN - NB	Washington to Victory	5069032	5069	1167.4	15.6	35	0.45	37.8	23.0	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ABERCORN - SB	37th St to Victory	5070002	5070	1716.6	17.8	35	0.51	46.2	33.0	Signal	D	Urban Core	Constrained Corridor - Optimize Victory then Abercorn will benefit from more time
	63rd St to DeRenne	5070006	5070	2759.3	22.7	40	0.57	47.2	31.0	Signal	D	Excessive Intersection Delays	Optimize Derenne and Abercorn, NB right turn lane planned
	Jackson to Stephenson	5070011	5070	1300.9	16.1	45	0.36	47.9	30.0	Signal	D	Excessive Delays at Stephenson	Coordinate signals between DeRenne and Stephenson
	Mall Driveway to Montgomery Cross	5070016	5070	1638.4	18.6	45	0.41	54.3	32.0	Signal	D	Oversaturated Intersection	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn on Montgomery Cross
	Mercy to Science	5070023	5070	3831.4	29.6	45	0.66	39.0	20.5	Signal	D	Delays throughout corridor	Priority IC - Widen 4-6 from Rio to Truman
	Apache to Rio	5070025	5070	2685.1	15.8	45	0.35	127.9	70.5	Signal	F	Excessive delays at Rio	Priority IC - Widen 4-6 from Rio to Truman, Optimize from Rio to King George
	Veterens Pkwy to King George	5070028	5070	5532.3	27.0	55	0.49	144.9	64.5	Signal	F	Westbound Delays to King George	Priority IC - Widen 4-6 between King George and Rio, Priority II - Widen 6-8, widen King George appr
	I-95 to I-95 SB Ramp	5070033	5070	691	21.8	55	0.40	21.5	9.2	Cross Street	D	Delays between I-95 S and Gateway	Priority II - Operational at I-95, Coordinate signals between I-95 South ramp and Gateway
PRICE - SB	Bay St to Broughton	5072001	5072	743.8	16.6	30	0.55	49.5	11.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Anderson to 37th St	5072008	5072	1991.1	14.5	35	0.41	54.5	39.8	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	37th St to Victory	5072009	5072	1781.3	19.2	35	0.55	36.0	21.8	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
EAST BROAD ST - NB	40th St to 37th St	5075002	5075	922	16.8	35	0.48	29.9	17.3	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Gwinnett to Liberty	5075006	5075	2845.5	23.4	35	0.67	40.9	22.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
SH 25 (CROSSGATE/BOURNE) - NB	SH 25 Merge to SH 21 Spur	5079003	5079	3088.4	26.7	45	0.59	47.9	29.2	Signal	D	Sufficient Roadway Capacity but High Delays	Signal Operations - High Truck Volumes and construction detour, study again next CMS
JOHNNY MERCER - EB	Walgreens to Wilminghton Island	5083005	5083	1348.8	13.3	35	0.38	49.0	28.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Optimize Signal, add channelized NB right turn, Access Mgmt with WB cont flow
JOHNNY MERCER - WB	White Marsh to US 80	5084009	5084	4488	27.2	45	0.61	44.8	30.3	Signal	D	Canopy - Constrained Corridor	Priority II - Operational, consider WB US 80 Continuous movement

PM Congested Segments Cont.
Table E-2

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
HODGESON MEMORIAL - NB	Mall Way to Mall Blvd	5089003	5089	500.3	8.7	35	0.25	38.2	27.7	Signal	D	Short distance between Mall Way and Mall Blvd	Signal Operations - Coordinate signals between Mall Way and Mall Blvd
HODGESON MEMORIAL - SB	Stephenson to Eisenhower	5090001	5090	1368.5	9.3	35	0.26	77.5	61.3	Signal	E	Currently under construction on Stephenson	Study next CMS
STEPHENSON - EB	White Bluff to Abercorn	5091001	5091	793.1	6.2	30	0.21	70.3	55.8	Signal	E	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
STEPHENSON - WB	Hodgeson Memorial to Habersham	5092003	5092	1012.3	10.6	25	0.43	43.8	26.8	Signal	D	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
	Habersham to Abercorn	5092004	5092	702.3	10.8	30	0.36	44.2	32.3	Signal	D	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
	Abercorn to White Bluff	5092005	5092	793.1	12.6	30	0.42	52.5	41.0	Signal	D	Consistent WB Delays	Consider widening WB approach to allow 2 through lanes
HABERSHAM - NB	Johnston to DeRenne	5093002	5093	2430.1	7.6	35	0.22	176.3	106.7	Cross Street	F	Minor Approach to SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
	Victory to 37th St	5093007	5093	1712.5	15.2	30	0.51	40.4	25.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
HABERSHAM - SB	63rd St to DeRenne	5094006	5094	2741.8	21.1	35	0.60	35.0	14.0	Signal	D	Minor Approach to SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
	Johnston to Stephenson	5094008	5094	3189.1	7.9	35	0.23	241.3	126.0	Cross Street	F	Currently under construction on Stephenson	Stephenson widening will help Habersham
BONNY BRIDGE - WB	SH 25 to SH 21	5096002	5096	4947.8	21.9	40	0.55	74.3	47.8	Signal	E	Delays at SH 21, Minor approach	Delays expected at minor appr to SH 21, Optimize Signal
GULFSTREAM/CROSSGATE/IDA/AIRWAYS - EB	Patrick Graham Terminal to SH 21	5097009	5097	12131.6	21.0	40	0.53	224.0	120.0	Cross Street	D	Currently detour due to construction on SR 25	Study next CMS
	SH 21 to SH 25	5097010	5097	4673.4	26.6	41	0.65	42.3	13.0	Signal	D	Currently detour due to construction on SR 25	Study next CMS
GULFSTREAM/CROSSGATE/IDA/AIRWAYS - WB	SH 25 to SH 21	5098002	5098	4673.4	26.5	41	0.65	54.8	33.6	Signal	D	Currently detour due to construction on SR 25	Study next CMS
PENN WALLER - NB	Wassaw to Johnny Mercer	5103004	5103	1115.9	14.9	35	0.43	33.4	22.3	Cross Street	D	Minor Approach to Johnny Mercer	Side street delays are expected
HARMON - NB	37th St to Anderson	5105004	5105	1999.1	14.9	25	0.59	37.9	33.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions

PM Congested Segments Cont.
Table E-2

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
HARMON - SB	Henry to Anderson	5106004	5106	321.2	4.5	25	0.18	35.4	31.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	39th St to Victory	5106007	5106	1056.6	13.1	25	0.52	25.9	18.7	AWSC	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired cond, Stop sign upstream restricts coordination
WATERS/WHITFIELD/DIAMOND CAUSWAY - NB	City Limit to Montgomery Cross	5107010	5107	2227.8	15.6	45	0.35	67.3	53.7	City Limit	F	Heavy left turn volumes overflow storage bays	Optimize signal timing to maximize flowrate for left turn vehicles, this will free-up green time for other phases
	Eisenhower to Stephenson	5107013	5107	1307.8	15.2	40	0.38	45.2	25.7	Signal	D	Corridor will improve with extension of Truman	Study next CMS
	Stephenson to DeRenne	5107014	5107	5497.7	11.3	35	0.32	251.2	111.7	Signal	F	Corridor will improve with extension of Truman	Study next CMS, review in E-W Study
WATERS/WHITFIELD/DIAMOND CAUSWAY - SB	Gwinnett to Henry	5108002	5108	1592.1	19.0	30	0.63	25.2	14.3	AWSC	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	37th St to Victory	5108005	5108	1705.4	11.2	30	0.37	67.4	44.7	Signal	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	65th St to DeRenne	5108012	5108	1973.7	17.2	35	0.49	50.1	13.0	Signal	D	Corridor will improve with extension of Truman	Study next CMS
	DeRenne to Stephenson	5108013	5108	5497.8	14.0	35	0.40	159.8	47.3	Signal	F	Corridor will improve with extension of Truman	Study next CMS
	Stephenson to Eisenhower	5108014	5108	1307.7	13.3	40	0.33	48.8	29.7	Signal	D	Corridor will improve with extension of Truman and Whitfield widening	Study next CMS
	Mall Blvd to Montgomery Cross	5108016	5108	1919.6	17.9	40	0.45	41.1	21.0	Signal	D	Corridor will improve with extension of Truman and Whitfield widening	Study next CMS
FERGUSON - NB	Shipyard to Diamond Causeway	5113002	5113	6509.6	30.5	40	0.76	36.6	15.3	TWSC	E	Canopy - Constrained Corridor	Constrained Corridor - Secondary roadway for access, higher speeds not desired
FERGUSON - SB	La Roche to Skidaway	5114001	5114	6100.5	26.2	40	0.66	54.5	19.5	TWSC	F	Canopy - Constrained Corridor	Constrained Corridor - Secondary roadway for access, higher speeds not desired
SKIDAWAY - NB	Montgomery Cross to Eisenhower	5115004	5115	3950.4	17.6	35	0.50	79.7	47.7	Signal	E	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
	DeRenne to La Roche	5115007	5115	3331.8	20.5	35	0.59	50.6	22.3	Signal	D	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
	La Roche to 52nd St	5115008	5115	2124.2	14.8	35	0.42	58.7	18.0	Signal	E	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
	Colorado to Victory	5115010	5115	953.4	8.4	35	0.24	63.7	47.3	Signal	E	Delay at Victory, sufficient capacity for all mvmt	No dedicated right turn bay, may consider, coordinating Victory timing will improve int ops

PM Congested Segments Cont.
Table E-2

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
SKIDAWAY - SB	Wheaton to Henry/Anderson	5116001	5116	1912.8	14.2	30	0.47	48.0	37.3	TWSC	E	Minor Approach to 5-legged intersection	Optimize Signal at Anderson
	36th St to Victory	5116003	5116	2607.6	19.7	35	0.56	42.6	24.0	Signal	D	Delay at Victory, sufficient capacity for all mvmt	No dedicated right turn bay, may consider, coordinating Victory timing will improve int ops
	Colorado to 52nd St	5116005	5116	2264.6	16.4	35	0.47	52.0	27.7	Signal	D	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
	La Roche to DeRenne	5116007	5116	3331.7	19.9	35	0.57	50.1	24.3	Signal	D	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
	Bonna Bella to Eisenhower	5116009	5116	4611.3	21.4	40	0.53	68.5	29.7	Signal	E	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
PENNSYLVANIA - NB	Capital to Islands Expressway	5117003	5117	1858.6	13.8	30	0.46	63.8	45.5	Signal	E	Minor Approach at Bay	Cross Street Delay Expected
PENNSYLVANIA - SB	Islands Expressway to Capital	5118001	5118	1858.6	18.1	30	0.60	58.4	16.3	Signal	E	Signal Operations at Capital	Signal Operations - at Capital
TIBET - EB	Largo to Abercorn	5121002	5121	4218.9	17.6	35	0.50	82.4	56.3	AWSC	F	Minor Approach at Abercorn	TIP #532570 for Intersection Improvement
TIBET - WB	White Bluff to Abercorn	5122001	5122	704.2	13.9	35	0.40	52.2	38.7	Signal	D	Minor Approach at Abercorn	TIP #532570 for Intersection Improvement
	Largo to Middleground	5122003	5122	2293.9	20.9	30	0.70	26.1	19.8	AWSC	D	Minor Approach at Middleground	Cross Street Delay Expected
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	DeRenne to Skidaway	5123006	5123	3966.4	19.7	35	0.56	62.8	39.0	Signal	E	Delays at Skidaway and SR 21	Priority II - Operational from City limits to Skidaway, will improve with Skidaway widening, Optimize signal timing
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Harry Truman NB Ramp to Skidaway	5124003	5124	4533.9	19.0	30	0.63	60.9	48.0	Signal	E	Delays at Skidaway	Priority III - Operational between Waters and Skidaway, will improve with Skidaway widening, Optimize signal timing
	Skidaway to DeRenne	5124004	5124	3966.4	25.3	35	0.72	36.4	16.0	Signal	D	Delays at Skidaway and SR 21	Priority II - Operational from City limits to Skidaway

PM Congested Segments Cont.
Table E-2

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
VICTORY/SAFOLD/ISLANDEXPRESSWAY/US 80 - EB	Bull to Abercorn	5129009	5129	817.4	18.3	35	0.52	39.2	31.3	Signal	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
	Paulsen to Waters	5129014	5129	1255.7	16.8	35	0.48	40.5	30.3	Signal	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
	Bee Rd to Harry Truman SB Ramp	5129016	5129	2149.2	18.1	40	0.45	49.5	30.3	Signal	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
	Walin to Skidaway	5129019	5129	1174.6	11.3	40	0.28	75.3	45.5	Signal	E	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
	Thunderbolt City Limit to Whatley	5129022	5129	609.8	16.0	35	0.46	35.5	24.0	Cross Street	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
VICTORY/SAFOLD/ISLANDEXPRESSWAY/US 80 - WB	Skidaway to Walin	5130021	5130	1174.6	8.4	40	0.21	73.1	55.3	Signal	E	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
	Bee Rd to Waters	5130025	5130	2834.3	24.1	40	0.60	42.0	29.8	Signal	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
	Habersham to Abercorn	5130030	5130	716	7.1	35	0.20	55.3	36.7	Signal	E	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
	Hopkins to Stiles	5130037	5130	3300.2	21.6	35	0.62	58.3	34.5	Signal	E	Delays at intersection with Ogeechee	Study intersection for possible signalization

Table E-3 – Top 20 Most Congested Segments

Rank	Route and Direction	Roadway Segement	Segment ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
1	WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Stephenson to DeRenne	5107014	5497.7	PM	11.3	35	0.32	251.2	111.7	Signal	F	Corridor will improve with extension of Truman	Study next CMS, review in E-W Study
			5107014	5497.7	MD	16.1	35	0.46	130.3	62.0	Signal	F		
			5107014	5497.7	AM	18.7	35	0.53	109.4	49.7	Signal	F		
2	HABERSHAM - SB	Johnston to Stephenson	5094008	3189.1	PM	7.9	35	0.23	241.3	126.0	Cross Street	F	Currently under construction on Stephenson	Stephenson widening will help Habersham
			5094008	3189.1	AM	17.5	35	0.50	66.7	44.3	Cross Street	D		
3	BULL/WHITE BLUFF - SB	Eisenhower to Abercorn	5066010	2720.2	PM	9.2	40	0.23	179.3	129.3	Signal	F	Canopy - Constrained Corridor, Minor Approach	NB/SB left turns very light, consider restricting them, add NB Right turn overlap.
			5066010	2720.2	AM	26.2	40	0.66	44.8	33.5	Signal	D		
			5066010	2720.2	MD	23.5	40	0.59	44.1	29.3	Signal	D		
4	MALL BLVD - WB	Mall Way to Abercorn	5006004	889.8	PM	5.0	40	0.12	179.2	138.0	Signal	F	Planned Intersection TIP	Consider change in lane use for shared dual left, study addition of NB right turn.
			5006004	889.8	AM	9.6	40	0.24	76.1	57.5	Signal	E	Excessive delays back through Mall Way	
5	BULL/WHITE BLUFF - NB	Hampstead to DeRenne	5065017	1250	PM	4.3	35	0.12	177.4	132.7	Signal	F	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations, study in E-W study
			5065017	1250	MD	6.2	35	0.18	111.7	89.0	Signal	F		
			5065017	1250	AM	8.2	35	0.23	91.2	69.8	Signal	F		
6	HABERSHAM - NB	Johnston to DeRenne	5093002	2430.1	PM	7.6	35	0.22	176.3	106.7	Cross Street	F	Minor Approach to SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
			5093002	2430.1	AM	13.8	35	0.39	82.6	67.7	Cross Street	E		
7	WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	DeRenne to Stephenson	5108013	5497.8	PM	14.0	35	0.40	159.8	47.3	Signal	F	Corridor will improve with extension of Truman	Study next CMS
8	ABERCORN - SB	Veterens Pkwy to King George	5070028	5532.3	PM	27.0	55	0.49	144.9	64.5	Signal	F	Westbound Delays to King George	Priority IC - Widen 4-6 between King George and Rio, Priority II - Widen 6-8, widen King George approach.
			5070028	5532.3	MD	36.5	55	0.66	38.2	22.0	Signal	D		
9	SH 21/I 516/DERENNE - EB	Montgomery to Bull	5035025	1374.5	PM	6.0	40	0.15	140.9	103.0	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study.
			5035025	1374.5	MD	15.2	40	0.38	69.4	48.7	Signal	E		
			5035025	1374.5	AM	21.0	40	0.53	60.1	39.0	Signal	E		
10	OGEECHEE/US 17 - WB	Quacco to SH 204 WB Ramp	5012007	6651.9	PM	19.0	40	0.47	138.7	53.0	Signal	F	Currently under construction	Study next CMS
11	SH 21/I 516/DERENNE - EB	Cross Gate to SH 25	5035010	7509.7	AM	29.3	55	0.53	138.1	64.0	Signal	F	Currently detour due to construction on SR 25	Study next CMS
			5035010	7509.7	MD	25.2	55	0.46	137.1	44.0	Signal	F		
			5035010	7509.7	PM	33.0	55	0.60	72.3	43.0	Signal	E		

Top 20 Segments Continued
Table E-3

Rank	Route and Direction	Roadway Segement	Segment ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
12	SH 21/I 516/DERENNE - WB	SH 25 to Cross Gate	5036026	7509.7	PM	26.6	55	0.48	135.5	55.8	Signal	F	Currently under construction on SR 25	Study next CMS
13	ABERCORN - SB	Apache to Rio	5070025	2685.1	PM	15.8	45	0.35	127.9	70.5	Signal	F	Excessive delays at Rio	Priority IC - Widen 4-6 from Rio to Truman, Optimize from Rio to King George
14	SKIDAWAY - SB	La Roche to DeRenne	5116007	3331.7	AM	13.3	35	0.38	126.9	85.5	Signal	F	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
			5116007	3331.7	PM	19.9	35	0.57	50.1	24.3	Signal	D		
15	BULL/WHITE BLUFF - SB	61st St to DeRenne	5066005	3527.4	MD	13.6	35	0.39	118.2	92.5	Signal	F	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations
			5066005	3527.4	PM	23.0	35	0.66	35.8	19.0	Signal	D		
			5066005	3527.4	AM	23.0	32	0.72	35.5	22.8	Signal	D		
16	MONTGOMERY CROSS - EB	Tibet Ave to Abercorn	5003002	8340.3	PM	20.9	35	0.60	113.1	89.0	Signal	F	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn, study approach at Abercorn
			5003002	8340.3	AM	23.8	35	0.68	85.8	67.0	Signal	F		
			5003002	8340.3	MD	25.8	35	0.74	57.7	69.5	Signal	E		
17	MONTGOMERY CROSS - WB	Sallie Mood to Waters	5004002	4851.7	MD	18.1	45	0.40	111.0	94.5	Signal	F	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
			5004002	4851.7	AM	24.1	45	0.53	73.7	37.6	Signal	E		
			5004003	3078.1	PM	19.1	35	0.55	53.5	38.3	Signal	D		
18	ABERCORN - NB	Private Drive to DeRenne	5069028	729.3	PM	4.4	40	0.11	107.0	81.6	Signal	F	Excessive Intersection Delays	Priority IB - Operational - Optimize Derenne and Abercorn will improve, NB right turn lane planned
			5069028	729.3	AM	5.6	40	0.14	83.8	66.2	Signal	F		
			5069028	729.3	MD	11.2	40	0.28	42.8	24.7	Signal	D		
19	DEAN FOREST/BOURNE - SB	SH 25 to SH 21	5052002	5674.7	AM	22.9	45	0.51	104.9	93.8	Signal	F	Heavy Truck Traffic, construction detour	High Percentage of Trucks and many stopped for queuing at Port - Widen shoulder to provide storage
			5052002	5674.7	MD	27.7	45	0.62	72.5	56.7	Signal	E		
			5052002	5674.7	PM	27.8	45	0.62	66.7	38.8	Signal	E		
20	ABERCORN - NB	Pine Grove to King George	5069006	3413.4	AM	26.2	55	0.48	103.9	59.5	Signal	F	Excessive eastbound delays at King George	Priority II - Widen 4-6 from US 17 to King George, accel lane for EB rights, widen King George approach.
			5069006	3413.4	MD	19.4	55	0.35	85.3	58.0	Signal	F		
			5069006	3413.4	PM	28.2	55	0.51	69.3	40.3	Signal	E		

2.0 INTRODUCTION

2.1 Study Purpose

The purpose of this study was to identify problem areas using travel time studies and to prepare recommendations to improve the traffic flow on the transportation system as a whole and on specific corridors. The results of this study are used as factors in prioritizing needed improvements.

2.2 Study Limits

The 2004 study was conducted on approximately 313 centerline miles of roadways in Chatham County. Roadways were in the County and in the following cities: Bloomingdale, Garden City, Pooler, Port Wentworth, Savannah, Thunderbolt, Tybee Island, Unincorporated Chatham County, and Vernonburg. **Figure 1** shows the study area and roadways.

The study included 59 different roadways, divided into 1,049 separate segments that ranged from 235 feet to 5 miles in length in the rural area.

3.0 TRAFFIC THEORY

3.1 Roadway Capacity

The Highway Capacity Manual 2000 defines capacity as "…the maximum hourly rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, traffic, and control conditions."

The capacity of a roadway, and its operational characteristics, is a function of a number of elements including: the number of lanes and lane widths, shoulder widths, roadway alignment, access, traffic signals, grades, and vehicle mix. Generally, roadways with wider travel lanes, fewer traffic control devices, straight alignments, etc. allow faster travel speeds.

3.2 Level of Service (LOS)

The Highway Capacity Manual 2000 defines level of service as "…a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

"Six LOS are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions and the driver's perception of those conditions."

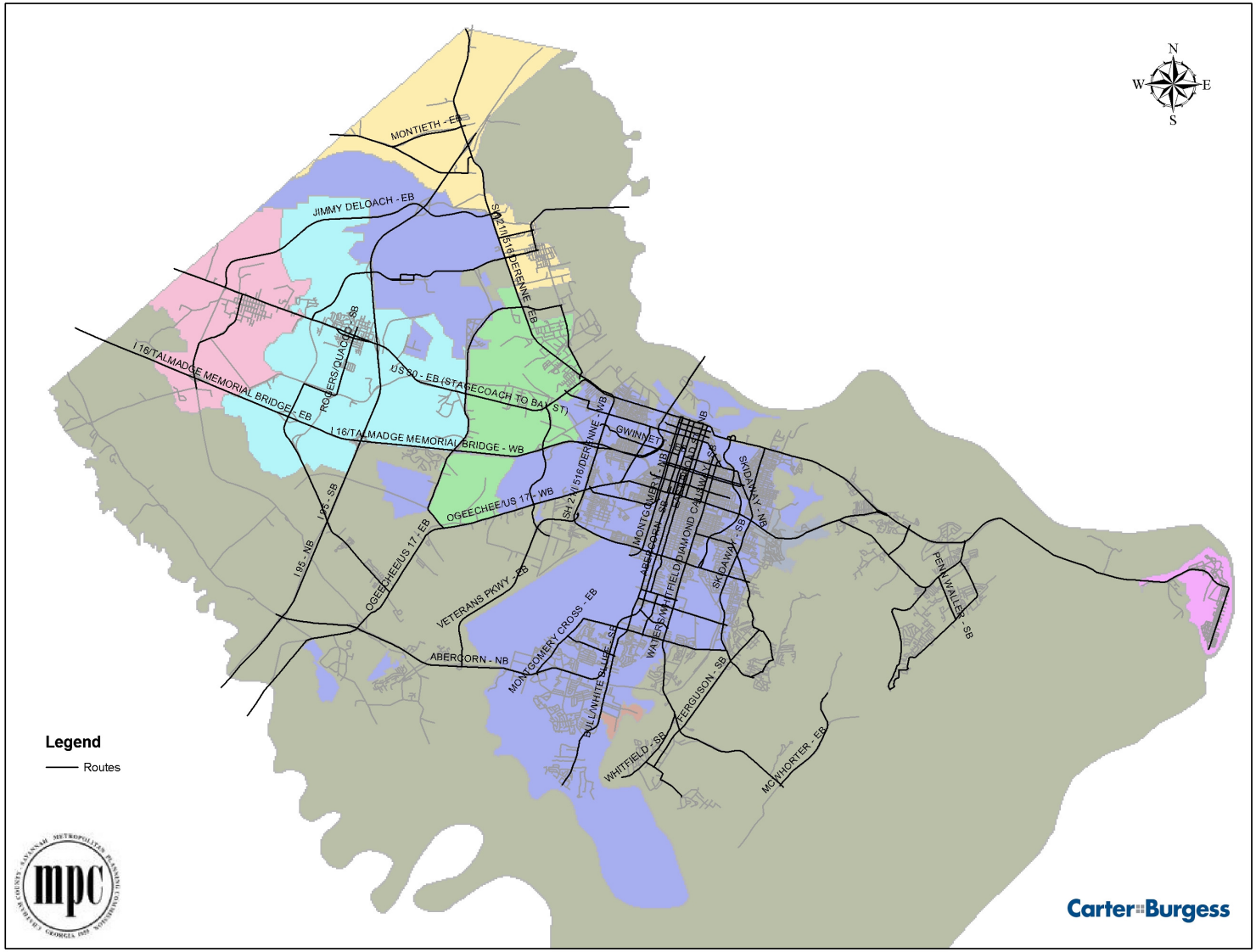


Figure 1 – Routes

One additional measure included in the CMS is congestion index (CI). CI basically is the % of posted speed. That is, average speed for a segment compared to the posted speed of that segment. Congestion Index is explained in more detail in Section 5.1. This method allows easy comparison of the efficiency of roadways.

4.0 METHODOLOGY

4.1 Roadway Mapping

4.1.1 Global Positioning System (GPS)

The data collection process was made more efficient by collecting data electronically using GPS technology. The methodology provided the MPC with background mapping and traffic-related elements that can be integrated with the GIS system for use in future projects.

Before starting the travel time runs, all 336 centerline miles of roadway were mapped using GPS technology.

GPS is a satellite-based positional system operated by the United States Department of Defense. There are 24 operational NAVSTAR satellites orbiting the earth every twelve hours, and providing 24-hour time and position information.

A Trimble receiver was mounted to a vehicle and used in the mapping. The receiver uses Differential GPS (DGPS) to provide position information to sub-meter accuracy. These receivers were used in combination with the controlling software while driving each roadway to inventory all elements related to speed.

The software, developed by Trimble Navigation Limited, was installed on a lap top computer and used to visually collect geographic data along the corridors. Constant measurement of the number of satellites tracked and the Position Dilution of Precision (PDOP) ensured that the conditions would allow optimal accuracy during data collection. When the PDOP exceeded an acceptable threshold, a warning tone sounded and data collection was halted until the PDOP returned to an acceptable level.

Once the data was collected in the field using the Trimble receivers, GPS Pathfinder Office software was used to manage and process the collected field data.

4.1.2 Mapping Runs

The roadway mapping was done in-vehicle using the Trimble GPS equipment and software. Mapping was done in one direction for each roadway segment during off-peak periods. For each segment, an appropriate offset was input as an adjustment so that data points were collected along the approximate centerline.

Traffic elements were recorded including observed city limit signs, speed limits, traffic signal locations, stop signs, school zones, cross streets, tight curves, major uncontrolled cross-streets, and segment begin/end points. This information would be used later to determine the segment lengths and theoretical travel times, and to provide better insight into the resulting travel time runs and improvement recommendations. An example of some of these traffic elements is shown in **Figure 2**. The location of stop signs, traffic signals, school zones, and railroad crossings can be plainly seen.

Additional elements mapped, coded, and linear referenced included number of directional lanes (**Figure 3**), functional class (**Figure 4**), speed limit (**Figure 5**), school zone (**Figure 6**), jurisdiction (**Figure 7**), construction (**Figure 8**), and ramp gores (**Figure 9**).

4.2 Travel Time Runs

Travel time runs were conducted using the floating car method. In the floating car method, the driver of the test vehicle “floats” with the traffic by attempting to safely pass as many vehicles as pass the test vehicle.

Travel time runs were conducted during the morning and afternoon peak periods on all roadway segments and during the mid-day off-peak. Three runs were made in each direction during each peak period, for a total of six runs per peak period. During those travel time runs, the GPS equipment recorded position and time at one-second intervals. The driver of the test vehicle drove the speed limit if no other cars were present and at the school zone speed limit if a school zone speed limit was in effect at the time of the travel time run.

Figure 2 – Mapping Elements

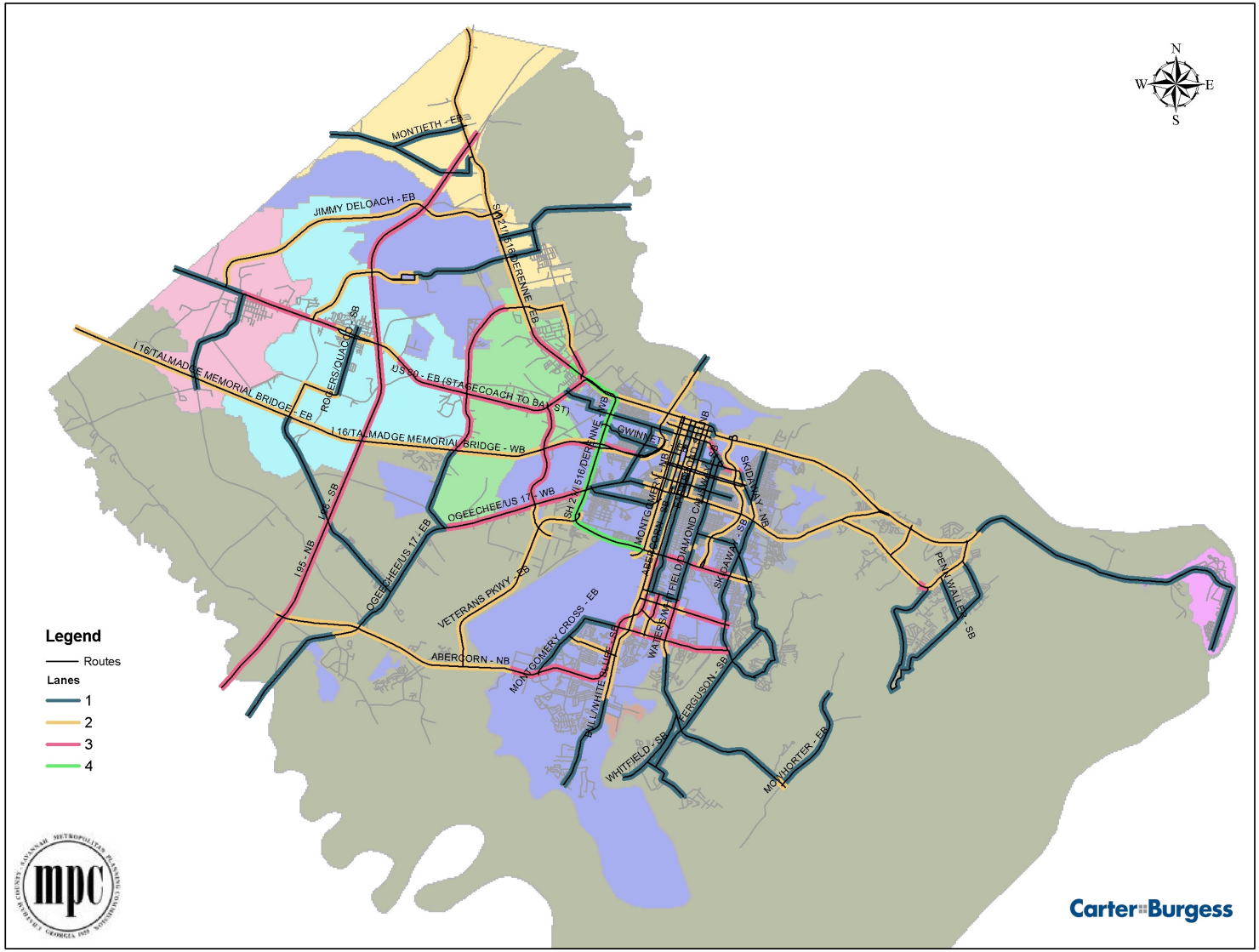


Figure 3 – Directional Lanes

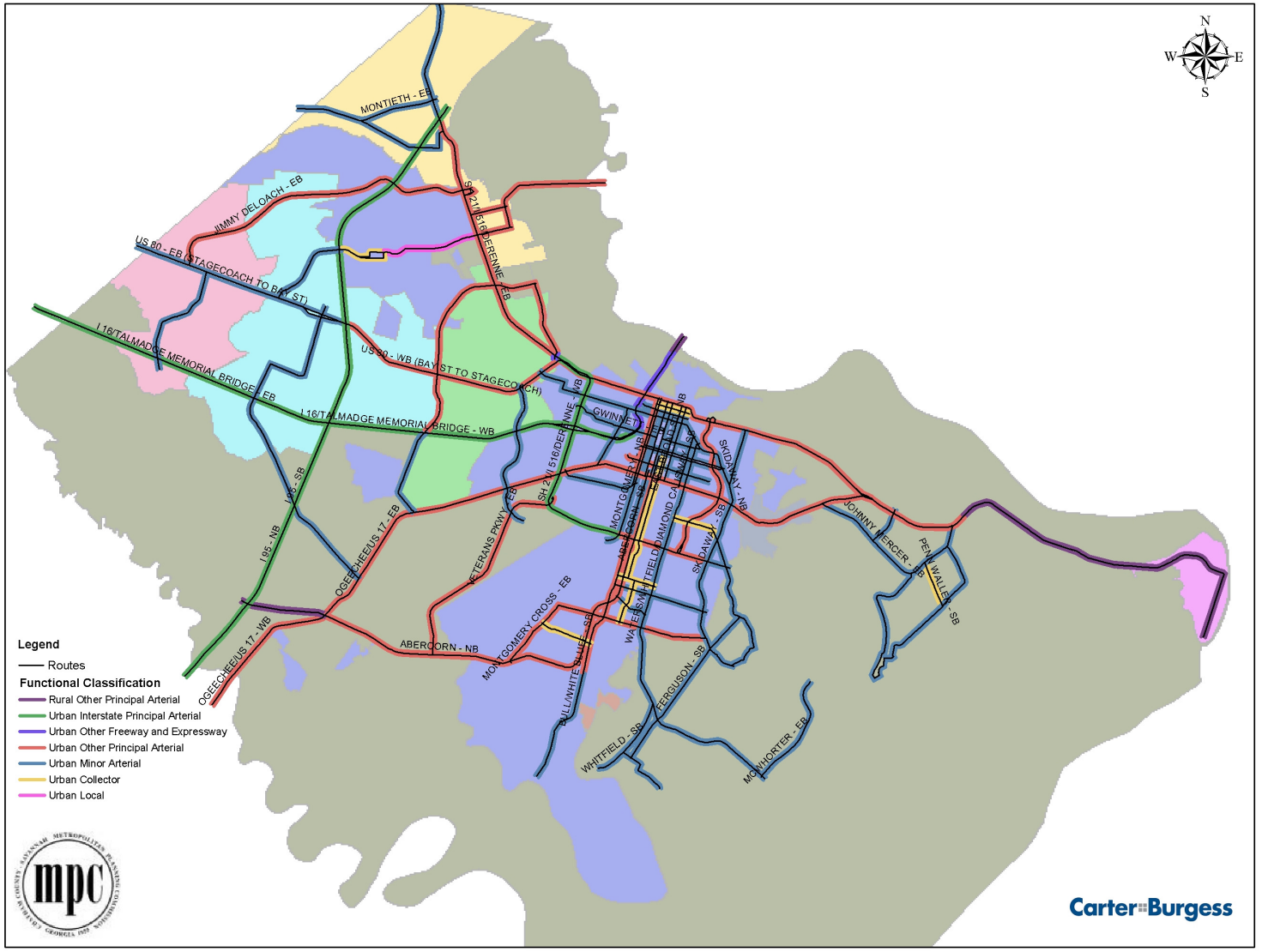


Figure 4 – Functional Classification

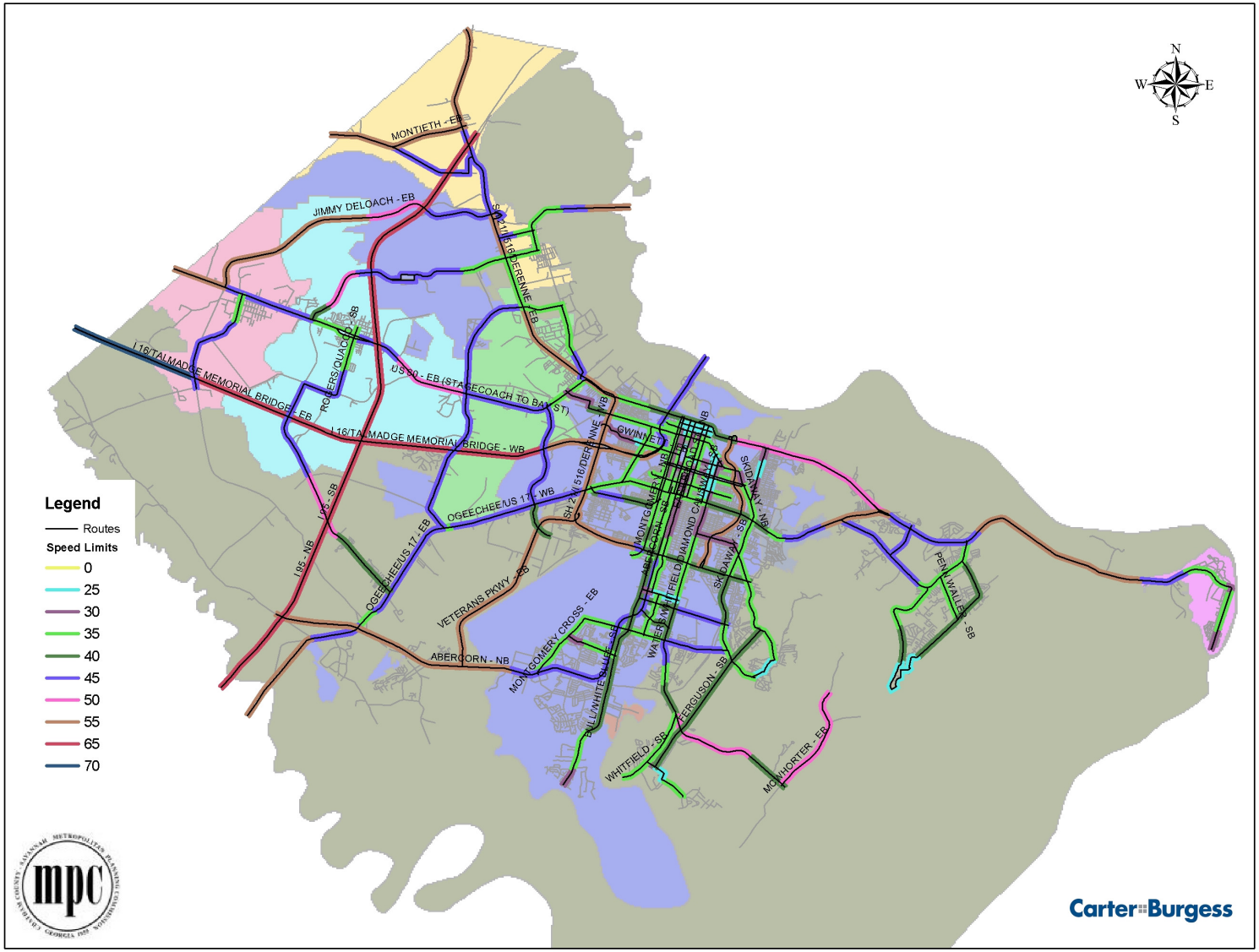


Figure 5 – Speed Limits

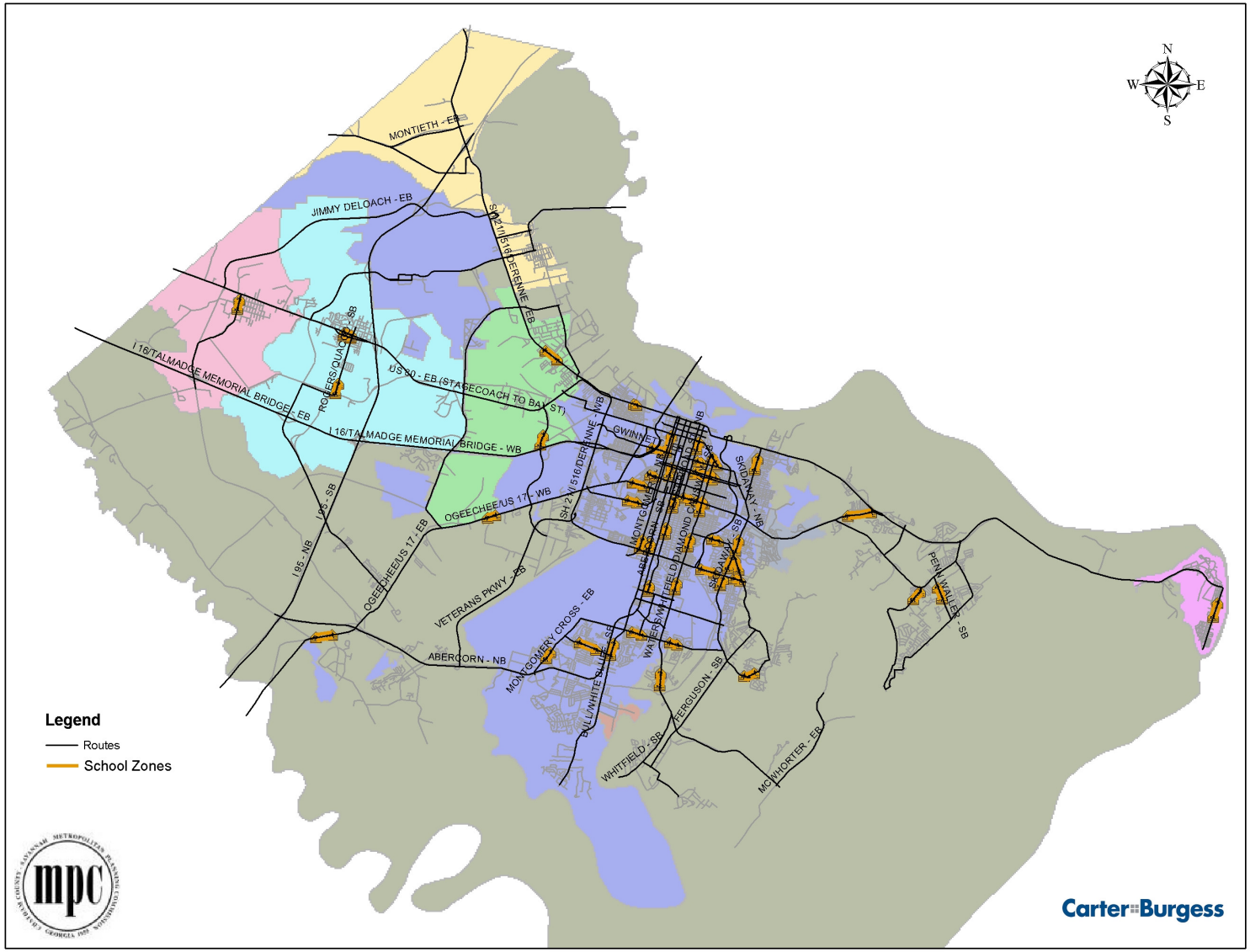


Figure 6 – School Zones

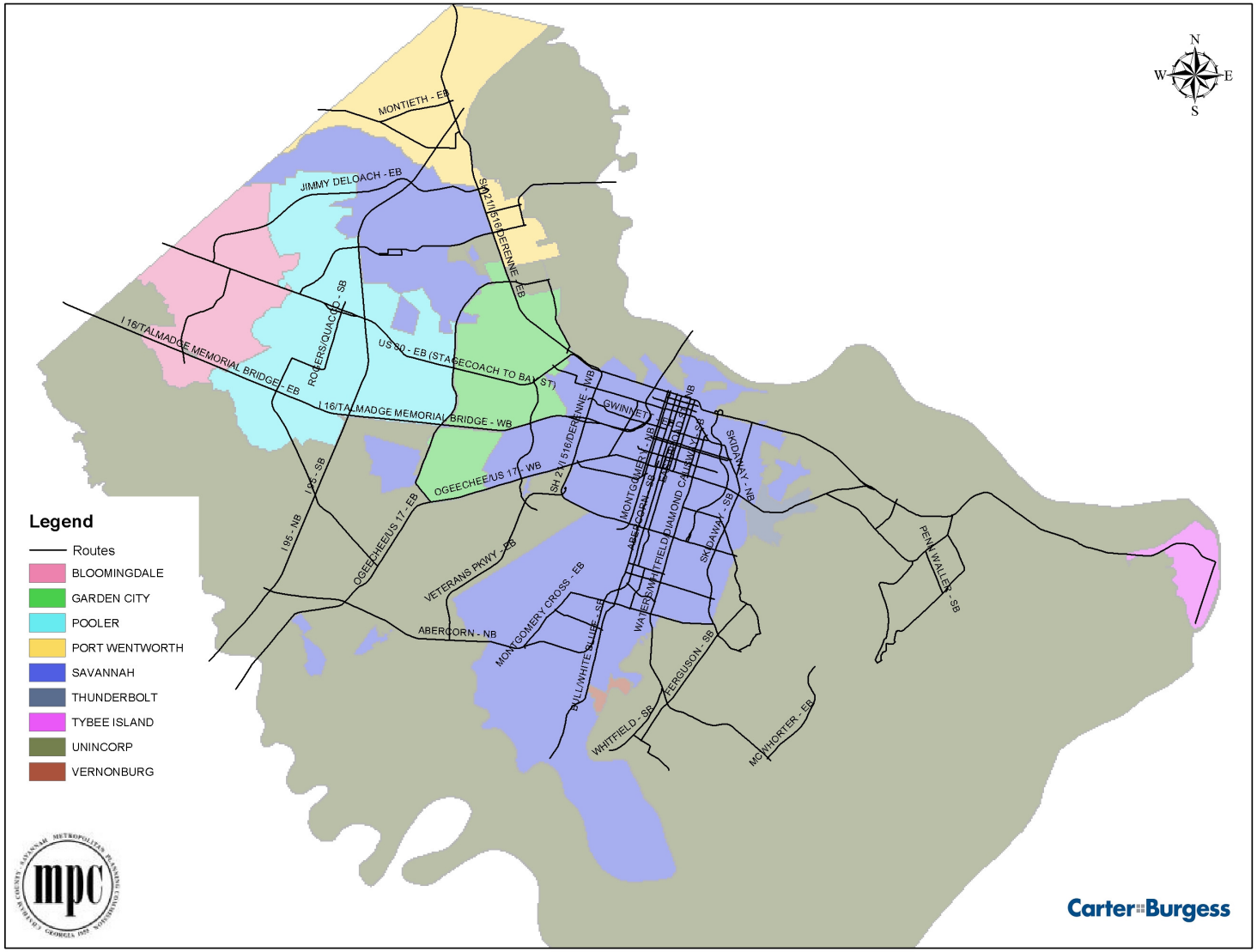


Figure 7 – Jurisdictions

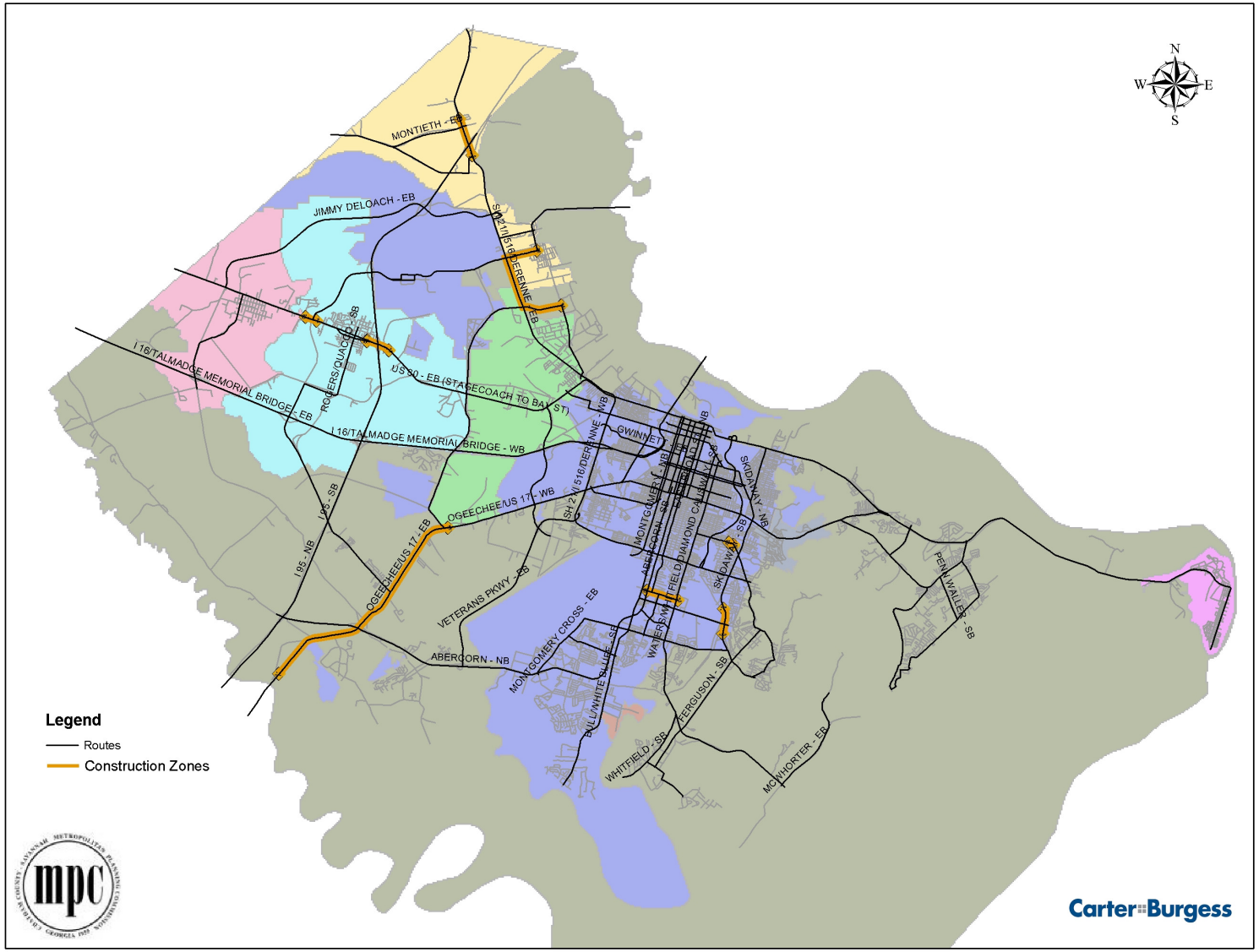


Figure 8 – Construction Zones

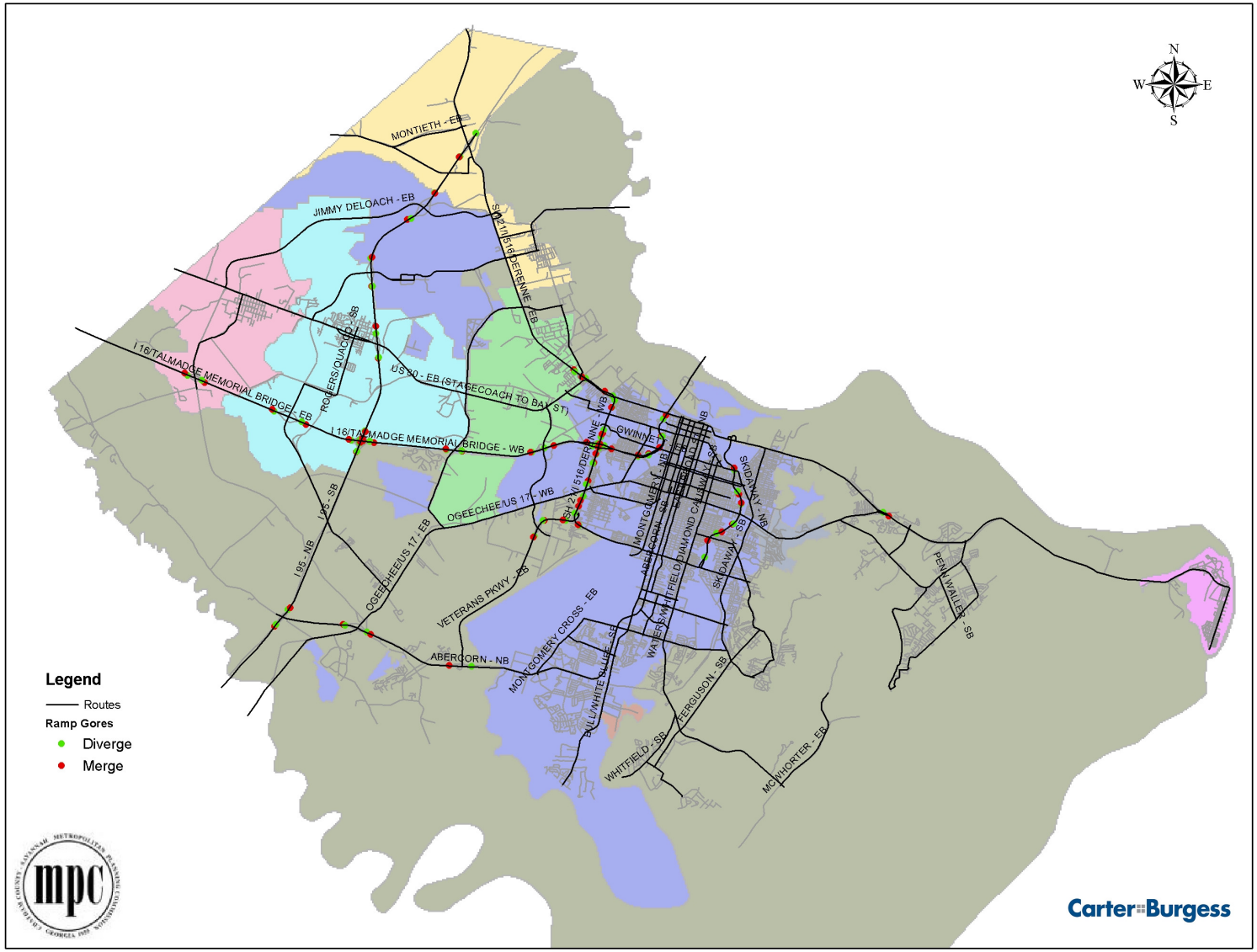


Figure 9 – Ramp Gores

4.3 Video on Travel Time Runs

The roadway segments were videotaped during selected travel time runs in order to provide a reference of operational conditions for improvement recommendations. The digital videos were later linked to the GIS results for future reference. This provides a video log of most primary roadways within Chatham County.

4.4 Problem Areas

Several problems were noted during both the mapping runs and the travel time runs. Several roadway segments were under construction with lane reductions and traffic control, which slowed traffic especially during the peak periods. These construction zones were noted and future improvement recommendations were made accordingly, accounting for current improvements under way.

5.0 ANALYSIS

5.1 Congestion Index

In addition to level of service (LOS), one performance measure introduced to the MPC and applied to the CMS is called Congestion Index (CI). CI is the ratio of the actual travel time to the theoretical travel time. Theoretical travel time is the time it would take a vehicle to traverse the segment distance at the posted speed limit without interruptions from other traffic or traffic control devices.

CI = Actual Travel Time / Theoretical Travel Time

CI = Congestion Index
Actual Travel Time = the recorded travel time for a given segment
Theoretical Travel Time = segment length / posted speed limit

The project oversight committee determined that a CI less than 0.70 indicates a congested section, a CI of 0.70 to 0.99 indicates a section of stable flow, and a CI greater than .99 indicates free flow conditions. **Table 1** defines the congestion index criteria.

The travel speeds on congested segments are slower than drivers typically want to drive, and there may be less opportunity for lane changing and maneuvering. Stable sections are typically accommodating volumes less than capacity. Travel speeds are somewhat slower than the speed limit, but generally acceptable to drivers. Lane changing and maneuvering is less difficult than in congested segments. Free-flow sections are operating well below capacity. Travel speeds equal or exceed the speed limit and traffic can maneuver without interference.

Table 1-Congestion Index Criteria

Congestion Index (CI)		
Congestion	Stable Flow	Free Flow
< 0.70	0.70 to 0.99	> 0.99

5.2 Roadway Segment Definition

The method used in this study was to define segment endpoints at each traffic signal or stop sign so that segments could be evaluated on a detailed level, and then combine appropriate segments to make corridor recommendations. The 2004 CMS included evaluation of approximately 336 centerline miles of roadways, including 59 different roads. These roads were further divided into 1,049 directional links for detailed evaluation. These links had a signal, stop sign, or major cross street as the end points.

The methodology developed and applied specifically for this project resulted in a calculated congestion index for each 1-second GPS data point. The actual speed between successive points provides detailed results that can highlight the congested segments. The detailed 1-second CI was used to develop the appropriate recommendations for the congested segments.

5.3 Data Reduction

The method of recording roadway information and travel times using GPS resulted in large amounts of data that required manipulation into a useable format. The roadway information was reviewed and "cleaned up" to remove items that were double-counted where two roadways crossed. City limits that were not posted in the field (most were not) were added directly into the database using the most current boundary files in the MPC's system. Each roadway was defined as a "route" in both directions and beginning and ending points were determined in order to calculate travel time for the segment. The GIS coordinate system provided by the MPC was modified to match the NAD 83 (feet) coordinate system used in the data collection. All information was organized so that data could be sorted by jurisdiction.

5.4 Presentation

The travel time information, associated LOS, and CI values were formatted into tables, graphs, and in ArcGIS.

The 1-second data points are color coded according to the criteria for free-flow, stable, and congested conditions. These 1-second points can be used to determine at what point along a segment a traveler experiences delays or congestion.

The data in the figures and tables in this report combines information for AM peak, off-peak, and PM peak travel time runs. When congestion occurs during only one time

period, the user can study the detailed information to determine the cause of the delay. This information includes the 1-second data points and the geo-referenced digital video. These videos have been linked within ArcGIS. The user can click on a section of road and see the video for that run indexed at that point. Thus, improvements can be better focused to ensure the most appropriate use of funds.

ArcGIS can be used to view the information provided in this study for reference and for future projects. Maps and figures can be made for presentations. Information such as speed limits along specific roadways, location and number of traffic signals, the location and number of stop signs, and the location and length of school zones can be summarized and viewed. The information can be summarized for the County or broken down and summarized by city, and can be used to identify future improvements. The data provided as part of this study combined with the use of ArcGIS gives the MPC a powerful tool for everyday operation as well as future planning.

6.0 EVALUATION

6.1 Approach Level of Service (LOS) and Congestion Index (CI)

Appendix A lists each roadway segments approach LOS and the average CI for the travel time runs. Considering all the time periods, of the 589 directional miles of roadways studied, 531.7 miles were LOS A-C and 57.1 miles were LOS D-F. This means that approximately 10% of the roadways studied were congested. **Table 2** summarizes the number of segments and miles operating under each respective LOS condition by time of day.

Table 2 - Summary of Study Roadways in Terms of LOS

LOS	Time Period	Number of Miles	Percentage	Summary LOS A-C and D-F			Average LOS A-C and D-F	
				Time Period	Number of Miles	Percentage	Number of Miles	Percentage
A	AM	318.1	67.1%	AM	542.4	90.3%	531.7	90.3%
	MD	338.5	71.1%					
	PM	275.9	61.0%					
B	AM	89.2	14.0%	MD	546.0	90.3%		
	MD	88.6	14.1%					
	PM	93.5	15.6%					
C	AM	67.0	11.0%	PM	506.6	83.1%		
	MD	46.9	7.5%					
	PM	67.0	9.4%					
D	AM	21.8	3.6%	AM	46.4	9.7%	57.1	9.7%
	MD	28.1	3.9%					
	PM	44.2	7.0%					
E	AM	16.0	2.4%	MD	42.8	9.7%		
	MD	12.8	1.8%					
	PM	22.6	4.0%					
F	AM	13.1	1.9%	PM	82.1	16.9%		
	MD	10.3	1.5%					
	PM	22.0	3.0%					

Only the congested segments (LOS D-F) are summarized in **Tables 4 & 5**. These tables list the roadway, direction, endpoints, city, distance, weighted average speed limit, delay, LOS, weighted average congestion index, congestion level, and a recommendation for improvement.

The 20 most congested segments are summarized in **Table 6**. This table was developed by ranking segments by LOS/Delay from most delay to least delay. Starting with the highest, the segments were examined in detail to determine the cause of congestion.

In many cases, LOS fell below C due to stop signs or traffic signals, and many of the recommendations call for signal timing improvements. These situations can be clearly seen in ArcGIS. The 1-second points are green along the length of a segment and then several red 1-second points occur while stopped at a stop sign or traffic signal. An example is provided in **Figure 9**. Traffic may be traveling at good speeds until they hit a red light. Less than optimal timing or lack of signal progression are primary causes of delay in these areas.

A number of the intersections were studied more closely. For these locations, shown on **Figure 10**, the traffic was observed and counted during the AM and PM peak periods. The volumes and intersection details were entered into Synchro, which is a traffic modeling and signal optimization program. The results demonstrate the conditions that would occur in the field following optimization and implementation of the improved signal timing. The following intersections were studied with the results as shown for the overall intersection delay and the corresponding LOS:

Table 3 – Isolated Intersection Optimized with Synchro

Intersection	AM Peak hour		PM Peak hour	
	Intersection Delay (sec)	Intersection LOS	Intersection Delay (sec)	Intersection LOS
SR 21 and Dukes Dr.	6.3	A	9.1	A
SR 21 and Brampton	7.9	A	14.6	B
SR 204 (Abercorn) and King George	28.7	C	146.3	F
Abercorn and Wilshire	6.2	A	9.7	A
Abercorn and Gateway	14.7	B	32.3	C
White Bluff and Wilshire	5.6	A	7.1	A
Bay Street and East Lathrop	11.9	B	12.4	B
Bay Street and West Lathrop	5.0	A	5.9	A

Additional Synchro details are provided in Appendix B for reference.

Table 4 - Summary of Congested Segments (LOS D-F) AM Peak Hour

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
MONTGOMERY CROSS - EB	Tibet Ave to Abercorn	5003002	5003	8340.3	23.8	35	0.68	85.8	67.0	Signal	F	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn, study approach at Abercorn
	Abercorn to White Bluff	5003003	5003	1567.6	14.4	35	0.41	57.7	42.8	Signal	E	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
	White Bluff to Hodgeson Memorial	5003004	5003	2376.4	23.1	35	0.66	36.1	23.3	Signal	D	Signal Timing	Delays along Montgomery between Abercorn and Waters, Coordinate signals
MONTGOMERY CROSS - WB	Sallie Mood to Waters	5004002	5004	4851.7	24.1	45	0.53	73.7	37.6	Signal	E	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
	White Bluff to Abercorn	5004005	5004	1567.6	14.8	35	0.42	52.7	34.8	Signal	D	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn, study approach at Abercorn
	Tibet Ave to Abercorn	5004007	5004	7029.6	23.3	35	0.67	75.1	47.7	Signal	E	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn
MALL BLVD - EB	Hodgeson Memorial to Waters	5005004	5005	3116.6	24.2	40	0.60	37.7	22.5	Signal	D	T intersection with Dual left	Delays caused by signal timing, sufficient capacity for all movements
MALL BLVD - WB	Waters to Hodgeson Memorial	5006002	5006	3116.5	24.4	40	0.61	37.6	21.3	Signal	D	Signal Operations, NB right turn	NB right turn may free up time for Mall Blvd traffic along with optimized timing
	Mall Way to Abercorn	5006004	5006	889.8	9.6	40	0.24	76.1	57.5	Signal	E	Excessive delays back through Mall Way	Consider change in lane use for shared dual left, study addition of NB right turn
EISENHOWER - WB	Seawright to Waters	5008004	5008	1520.6	15.6	45	0.35	48.0	28.7	Signal	D	Delays throughout the corridor to Truman	Coordinate timing throughout corridor
	Abercorn to White Bluff	5008007	5008	874.6	5.2	40	0.13	99.9	79.0	Signal	F	West Approach will improve with east side widening	PI #0002924 will widen to 4L divided between Abercorn and Truman, Consider SB continuous flow signal
52ND ST/MILLS - WB	Liberty to Victory	5010004	5010	1108	12.7	40	0.32	43.2	20.3	Signal	D	Preference given to Ogeechee traffic	Signal Operations - Coordination between Liberty and Ogeechee for minimum system delay
OGEECHEE/US 17 - EB	Chevis to SH 204 EB Ramp	5011003	5011	3154.4	25.6	45	0.57	37.4	15.8	Signal	D	Currently under construction	Study next CMS
37TH ST - EB	Waters to Bee Rd	5013015	5013	2817.4	20.4	35	0.58	44.5	19.5	Signal	D	Secondary street on fringe of urban core	This is the end of route with a Stop sign, delays acceptable on fringe in this case
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	West Boundary to MLK	5021009	5021	1483.5	15.3	35	0.44	45.9	31.0	Signal	D	Eastbound Delays	Coordinate Westbound traffic between Montgomery and MLK to max efficiency and allow more time for EB
	Montgomery to Whitaker	5021011	5021	1044.5	13.9	35	0.40	39.9	22.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations

AM Congested Segments Cont.
Table 4

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Randolph to East Broad St	5022006	5022	727.7	13.5	35	0.39	26.2	13.8	Cross Street	E	Canopy - Constrained Corridor, Urban Core	Constrained Corridor - Improvements limited to Optimizing Signals, Delays acceptable in Core
OGLETHORPE - EB	Price to East Broad St	5023009	5023	647.8	8.5	25	0.34	38.1	28.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
OGLETHORPE - WB	Montgomery to MLK	5024008	5024	363	3.2	25	0.13	69.7	56.3	Signal	E	Short distance between signals	Coordinate signals between Montgomery and Fahm
	MLK to Fahm	5024009	5024	954	12.0	35	0.34	38.0	23.3	Signal	D	Short distance between signals	Coordinate signals between Montgomery and Fahm
US 80 - WB (BAY ST TO STAGECOACH)	Coleman to I-95 NB Ramp	5028005	5028	3267.4	23.6	45	0.52	45.6	31.7	Signal	D	Signal not coordinated with Coleman or Rogers	Coordinate signals between Coleman and Rogers, need to account for Auto Plant
JIMMY DELOACH - EB	US 80 to Prescott	5029001	5029	6215.1	45.4	55	0.83	36.0	0.0	TWSC	E	No delays observed, just slow start-ups from US 80	No improvements necessary
SH 21/I 516/DERENNE - EB	SH 30 to Cross Gate	5035009	5035	3013.1	28.1	55	0.51	70.8	31.8	Signal	E	Currently detour due to construction on SR 25	Study next CMS
	Cross Gate to SH 25	5035010	5035	7509.7	29.3	55	0.53	138.1	64.0	Signal	F	Currently detour due to construction on SR 25	Study next CMS
	Liberty to Montgomery	5035024	5035	8966.9	18.8	54	0.35	218.0	114.0	Cross Street	E	End of Freeway Section, Delays expected	Excessive demand from freeway, delays unavoidable, Consider in E-W Study
	Montgomery to Bull	5035025	5035	1374.5	21.0	40	0.53	60.1	39.0	Signal	E	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
	Bull to Abercorn	5035026	5035	869.4	5.5	40	0.14	98.6	72.0	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
	Paulsen to Waters	5035030	5035	1059	22.6	40	0.57	50.1	39.5	Signal	D	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
SH 21/I 516/DERENNE - WB	La Roche to Skidaway	5036002	5036	2702.4	17.8	32	0.56	65.7	45.4	Signal	E	1 lane section, long delays at Skidaway	Consider widening approach to provide 2 thru lanes to match west side of int
BAY ST/GEN MC INTOSH/ PRESIDENT/ISLAND EXPWY - WB	I-516 to Lathrop	5042023	5042	397.7	10.3	35	0.29	26.0	15.7	Cross Street	E	Closely spaced signals between Graham and Lathrop	Coordinate signals between Graham and Lathrop
	Main St to Burnsed	5042026	5042	799.2	13.6	35	0.39	42.5	31.8	Signal	D	Closely spaced signals and RR crossing	Coordinate signals between Burnsed and Market
ROGERS/QUACCO - NB	Pine Barren to US 80 EB	5045010	5045	8502.8	26.6	39	0.68	73.4	66.0	TWSC	F	Short Distance between US 80 E/W	Signal Operations - Coordinate signals between US 80 E/W

AM Congested Segments Cont.
Table 4

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
DEAN FOREST/BOURNE - NB	Southridge to I-16 EB Ramp	5051002	5051	1530.4	23.2	45	0.52	31.6	21.7	Cross Street	D	High truck volumes	Priority IA - Widen from 2-4 between US 17 and I-16 - Consider Single Point Urban Interchange (SPUI)
	Garden City City Limit to SH 21	5051008	5051	2474.6	18.9	45	0.42	120.0	84.3	Cross Street	E	Funded Project for construction FY 2004-06 (PRC)	PI #562165 will widen to include center turn lane, lengthen bay for EB Rt across RR tracks
DEAN FOREST/BOURNE - SB	SH 25 to SH 21	5052002	5052	5674.7	22.9	45	0.51	104.9	93.8	Signal	F	Heavy Truck Traffic, construction detour	High Percentage of Trucks and many stopped for queuing at Port - Widen shoulder to provide storage
MARTIN LUTHER KING - NB	Exchange/52nd St to Victory	5059001	5059	1908	16.9	35	0.48	41.1	21.7	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - SB	Oglethorpe to Liberty	5060004	5060	1036.5	10.2	35	0.29	49.9	35.9	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
	37th St to Victory	5060011	5060	1760.9	17.1	35	0.49	36.4	25.0	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MONTGOMERY - NB	Franklin SQ N to Bay St	5061017	5061	247.1	5.9	30	0.20	31.8	20.6	Cross Street	F	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
MONTGOMERY - SB	Church Driveway to DeRenne	5062010	5062	1359.8	17.3	35	0.49	58.6	43.4	Signal	E	Canopy - Constrained Corridor, Minor Approach	Consider the addition of a right turn bay
WHITAKER - SB	West Park to Henry	5064007	5064	607	10.3	35	0.29	25.8	16.7	Flashing Yellow	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Anderson to 37th St	5064009	5064	2059.4	17.4	35	0.50	47.1	32.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	43th St to Victory	5064011	5064	898.6	15.5	35	0.44	26.5	14.7	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
BULL/WHITE BLUFF - NB	Television Circle to Montgomery Cross	5065010	5065	3378	18.5	40	0.46	71.5	45.2	Signal	E	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
	Mall Driveway to Abercorn	5065012	5065	710.5	7.1	40	0.18	69.9	48.0	Signal	E	Abercorn volumes very heavy	NB/SB left turns very light, consider restricting them, coordinate signal with Mall Dr
	Hampstead to DeRenne	5065017	5065	1250	8.2	35	0.23	91.2	69.8	Signal	F	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations, study in E-W study

AM Congested Segments Cont.
Table 4

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BULL/WHITE BLUFF - SB	40th St to Victory	5066001	5066	950	9.8	35	0.28	45.7	28.5	Cross Street	F	Excessive delay at Victory and over to Montgomery	Update and coordinate signal timing on Victory from MLK to the east
	61st St to DeRenne	5066005	5066	3527.4	23.0	32	0.72	35.5	22.8	Signal	D	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations
	Eisenhower to Abercorn	5066010	5066	2720.2	26.2	40	0.66	44.8	33.5	Signal	D	Canopy - Constrained Corridor, Minor Approach	NB/SB left turns very light, consider restricting them, add NB Right turn overlap
	Mall Driveway to Montgomery Cross	5066012	5066	1406	14.0	40	0.35	50.8	34.4	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ABERCORN - NB	I-95 to Gateway	5069003	5069	396	17.6	55	0.32	25.9	17.0	Cross Street	E	Delays between I-95 S and Gateway	Priority II - Operational at I-95, Coordinate signals between I-95 South ramp and Gateway
	Pine Grove to King George	5069006	5069	3413.4	26.2	55	0.48	103.9	59.5	Signal	F	Excessive eastbound delays at King George	Priority II - Widen 4-6 from US 17 to King George, accel lane for EB rights, widen King George appr
	Rio to Apache	5069010	5069	2685.1	29.3	45	0.65	35.9	21.0	Signal	D	Excessive delays at Apache	Priority IB - Operational, Priority IC - Widen from Rio to Truman, Coordinate between Rio and King George
	Mall Blvd to Eisenhower	5069022	5069	1555.4	27.3	45	0.61	37.1	28.8	Signal	D	Poor signal coordination	Coordinate signals along Abercorn
	Private Drive to DeRenne	5069028	5069	729.3	5.6	40	0.14	83.8	66.2	Signal	F	Excessive Intersection Delays	Priority IB - Operational - Optimize Derenne and Abercorn will improve, NB right turn lane planned
	Washington to Victory	5069032	5069	1167.4	12.9	35	0.37	38.5	23.2	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ABERCORN - SB	37th St to Victory	5070002	5070	1716.6	14.7	35	0.42	64.1	41.8	Signal	E	Urban Core	Constrained Corridor - Optimize Victory then Abercorn will benefit from more time
	63rd St to DeRenne	5070006	5070	2759.3	19.5	40	0.49	50.3	32.3	Signal	D	Excessive Intersection Delays	Optimize Derenne and Abercorn, NB right turn lane planned
	Mall Driveway to Montgomery Cross	5070016	5070	1638.4	20.7	45	0.46	35.1	23.3	Signal	D	Oversaturated Intersection	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn on Montgomery Cross
STILES - SB	Cloverdale to US 17	5074004	5074	3194.9	21.4	35	0.61	50.5	44.5	Signal	D	Delay for left turning vehicles	GDOT will be installing a signal for SB left turns
SH 25 (CROSSGATE/ BOURNE) - NB	SH 21 Spur to Port Authority	5079004	5079	2073.9	26.3	35	0.75	80.8	58.0	Signal	F	Sufficient Roadway Capacity but High Delays	Signal Operations - High Truck Volumes and construction detour, study again next CMS
JOHNNY MERCER - WB	White Marsh to US 80	5084009	5084	4488	28.8	45	0.64	41.7	25.2	Signal	D	Canopy - Constrained Corridor	Priority II - Operational, consider WB US 80 Continuous movement

AM Congested Segments Cont.
Table 4

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
WALTHOUR/WILLMINGTON ISLAND- SB	Wilminghton Island to Johnny Mercer	5086007	5086	1219.7	16.7	35	0.48	38.8	25.7	Cross Street	D	Canopy - Constrained Corridor	Constrained Corridor - Optimize Signal, add channelized NB right turn, Access Mgmt with WB cont flow
BRYAN WOODS - EB	Johnny Mercer to US 80	5087001	5087	4918.8	28.5	45	0.63	46.0	32.0	Signal	D	Minor Approach at Island Expressway	Cross Street delays expected
HODGESON MEMORIAL - SB	Stephenson to Eisenhower	5090001	5090	1368.5	10.5	35	0.30	66.8	43.0	Signal	E	Currently under construction on Stephenson	Study next CMS
	Mall Way to Montgomery Cross	5090004	5090	2054.7	24.4	35	0.70	42.4	36.0	Signal	D	Signal Operations, good capacity for all mvmts	Optimize signal timing at Montgomery
STEPHENSON - WB	Habersham to Abercorn	5092004	5092	702.3	5.4	30	0.18	99.6	78.0	Signal	F	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
	Abercorn to White Bluff	5092005	5092	793.1	9.5	30	0.32	49.5	37.3	Signal	D	Consistent WB Delays	Consider widening WB approach to allow 2 through lanes
HABERSHAM - NB	Johnston to DeRenne	5093002	5093	2430.1	13.8	35	0.39	82.6	67.7	Cross Street	E	Minor Approach to SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
HABERSHAM - SB	63rd St to DeRenne	5094006	5094	2741.8	16.3	35	0.46	66.4	43.3	Signal	E	Minor Approach at SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
	Johnston to Stephenson	5094008	5094	3189.1	17.5	35	0.50	66.7	44.3	Cross Street	D	Currently under construction on Stephenson	Stephenson widening will help Habersham
BONNY BRIDGE - WB	SH 25 to SH 21	5096002	5096	4947.8	28.2	40	0.71	46.4	35.3	Signal	D	Delays at SH 21, Minor approach	Delays expected at minor appr to SH 21, Optimize Signal
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	SH 25 to SH 21	5098002	5098	4673.4	20.9	41	0.51	78.8	48.3	Signal	E	Currently detour due to construction on SR 25	Study next CMS
HARMON - SB	Gwinnett to Henry	5106003	5106	1564.1	14.1	25	0.57	38.3	38.0	TWSC	E	Urban Core	Cross Street delays expected with priority given to east-west
	Henry to Anderson	5106004	5106	321.2	4.8	25	0.19	37.6	30.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions

AM Congested Segments Cont.
Table 4

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Green Island to Landings/Village	5107002	5107	1197.7	14.2	40	0.35	45.6	28.0	AWSC	E	Delays at Landings/Village	Priority IC - Widen 2-4 from Ferguson to McWhorter
	City Limit to Montgomery Cross	5107010	5107	2227.8	18.4	45	0.41	54.1	36.0	City Limit	E	Heavy left turn volumes overflow storage bays	Optimize signal timing to maximize flowrate for left turn vehicles, this will free-up green time for other phases
	Stephenson to DeRenne	5107014	5107	5497.7	18.7	35	0.53	109.4	49.7	Signal	F	Corridor will improve with extension of Truman	Study next CMS, review in E-W Study
	63rd St to Columbus	5107017	5107	1490.8	13.2	35	0.38	47.5	35.0	Signal	D	Short Distance between Columbus and LaRoche	Coordinate signals between Columbus and LaRoche
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	37th St to Victory	5108005	5108	1705.4	12.8	29	0.44	66.7	41.0	Signal	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	65th St to DeRenne	5108012	5108	1973.7	15.0	35	0.43	58.8	41.3	Signal	E	Corridor will improve with extension of Truman	Study next CMS
FERGUSON - SB	La Roche to Skidaway	5114001	5114	6100.5	26.2	40	0.65	56.7	26.8	TWSC	F	Canopy - Constrained Corridor	Constrained Corridor - Secondary roadway for access, higher speeds not desired
SKIDAWAY - NB	Montgomery Cross to Eisenhower	5115004	5115	3950.4	19.9	35	0.57	67.3	44.0	Signal	E	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
	Colorado to Victory	5115010	5115	953.4	15.7	35	0.45	39.6	25.3	Signal	D	Delay at Victory, sufficient capacity for all mvmt	No dedicated right turn bay, may consider, coordinating Victory timing will improve int ops
SKIDAWAY - SB	Henry/Anderson to 36th St	5116002	5116	2853.5	20.4	35	0.58	42.9	16.0	Signal	D	Short Distance between Penn and 36th St	Coordinate signals between Penn and 36th St
	36th St to Victory	5116003	5116	2607.6	13.6	35	0.39	83.8	59.3	Signal	F	Delay at Victory, sufficient capacity for all mvmt	No dedicated right turn bay, may consider, coordinating Victory timing will improve int ops
	La Roche to DeRenne	5116007	5116	3331.7	13.3	35	0.38	126.9	85.5	Signal	F	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
	Bonna Bella to Eisenhower	5116009	5116	4611.3	27.5	40	0.69	47.3	25.3	Signal	D	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
TIBET - EB	Largo to Abercorn	5121002	5121	4218.9	23.5	30	0.79	34.8	28.3	AWSC	D	Minor Approach at Abercorn	TIP #532570 for Intersection Improvement
	Abercorn to White Bluff	5121003	5121	704.2	7.6	35	0.22	51.5	38.5	Signal	D	Minor Approach at Bill White	Cross street delays expected
TIBET - WB	White Bluff to Abercorn	5122001	5122	704.2	7.4	35	0.21	77.8	61.0	Signal	E	Minor Approach at Abercorn	TIP #532570 for Intersection Improvement
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Harry Truman NB Ramp to Skidaway	5124003	5124	4533.9	21.5	30	0.72	46.9	35.3	Signal	D	Delays at Skidaway	Priority III - Operational between Waters and Skidaway, will improve with Skidaway widening, Optimize signal timing

AM Congested Segments Cont.
Table 4

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
VICTORY/SAFOLD/ ISLANDEXPRESSWAY/US 80 - EB	Johnny Mercer to White Marsh	5129027	5129	3924.1	29.4	55	0.53	49.8	29.0	Signal	D	Signal Operations - sufficient capacity	Coordinate signals between White Marsh and Johnny Mercer
VICTORY/SAFOLD/ ISLANDEXPRESSWAY/US 80 - WB	White Marsh to Johnny Mercer	5130013	5130	3924.1	36.7	55	0.67	36.5	14.7	Signal	D	Signal Operations - sufficient capacity	Coordinate signals between White Marsh and Johnny Mercer
	Thunderbolt City Limit to Commercial Driveway	5130019	5130	2207.9	18.7	40	0.47	42.8	19.0	Cross Street	D	Delay at Victory, sufficient capacity for all mvmt	Coordinate signal with Skidaway
	Commercial Driveway to Skidaway	5130020	5130	542.1	5.4	40	0.13	61.3	42.7	Signal	E	Delay at Skidaway, sufficient capacity	Dedicated right turn bay both sides, coordinating Victory timing will improve int ops
	Hopkins to Stiles	5130037	5130	3300.2	21.5	35	0.61	53.9	35.0	Signal	D	Delays at intersection with Ogeechee	Study intersection for possible signalization

Table 5 - Summary of Congested Segments (LOS D-F)-PM Peak Hour

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
MONTGOMERY CROSS - EB	Tibet Ave to Abercorn	5003002	5003	8340.3	20.9	35	0.60	113.1	89.0	Signal	F	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn, study approach at Abercorn
	Abercorn to White Bluff	5003003	5003	1567.6	11.8	35	0.34	58.6	41.7	Signal	E	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
	Sallie Mood to Skidaway	5003007	5003	4487.2	24.6	45	0.55	58.0	27.3	Signal	E	T intersection limits capacity	Intersection capacity if limited due to the T configuration, optimize signal operations
MONTGOMERY CROSS - WB	Waters to Hodgeson Memorial	5004003	5004	3078.1	19.1	35	0.55	53.5	38.3	Signal	D	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
	Hodgeson Memorial to White Bluff	5004004	5004	2376.4	17.5	35	0.50	46.1	32.7	Signal	D	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
	Abercorn to Tibet Ave	5004006	5004	8340.3	28.6	35	0.82	37.6	7.0	Signal	D	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn
	Tibet Ave to Abercorn	5004007	5004	7029.6	25.3	35	0.72	60.8	14.8	Signal	E	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn
MALL BLVD - EB	Mall Way to Hodgeson Memorial	5005003	5005	871.9	10.1	40	0.25	48.6	30.7	Signal	D	High Volume of Right turning Mall vehicles	Geometrics - Add right turn bay for existing channelized movement
	Hodgeson Memorial to Waters	5005004	5005	3116.6	24.4	40	0.61	35.7	16.7	Signal	D	T intersection with Dual left	Delays caused by signal timing, sufficient capacity for all movements
MALL BLVD - WB	Mall Way to Abercorn	5006004	5006	889.8	5.0	40	0.12	179.2	138.0	Signal	F	Planned Intersection TIP	Consider change in lane use for shared dual left, study addition of NB right turn
EISENHOWER - EB	White Bluff to Abercorn	5007001	5007	874.6	5.9	40	0.15	84.2	60.8	Signal	F	West Approach will improve with east side widening	PI #0002924 will widen to 4L divided between Abercorn and Truman, Consider SB continous flow signal
	Abercorn to Hodgeson Memorial	5007002	5007	1679.8	10.5	40	0.26	84.5	57.0	Signal	F	Delays throughout the corridor to Truman	Priority IC - Operational between Abercorn and Truman widen to include center turn lane, Coordinate timing throughout coridor
	Sallie Mood to Skidaway	5007006	5007	4273.3	25.8	45	0.57	58.4	35.0	Signal	E	Corridor will improve with extension of Truman	Study next CMS
EISENHOWER - WB	Hodgeson Memorial to Abercorn	5008006	5008	1679.8	14.1	40	0.35	60.8	38.0	Signal	E	Delays throughout the corridor to Truman	Priority IC - Operational between Abercorn and Truman widen to include center turn lane, Coordinate timing throughout corridor
	Abercorn to White Bluff	5008007	5008	874.6	7.6	40	0.19	73.5	55.4	Signal	E	West Approach will improve with east side widening	PI #0002924 will widen to 4L divided between Abercorn and Truman, Consider SB continuous flow signal

PM Congested Segments Cont.
Table 5

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
52ND ST/MILLS - WB	Hopkins to Liberty	5010003	5010	6113.7	30.9	43	0.72	43.6	14.8	Signal	D	Delays between Hopkins and Victory -1 lane approach and short distance between Liberty and Victory	Signal Operations - Coordination between Hopkins and Victory
	Liberty to Victory	5010004	5010	1108	8.6	40	0.22	68.1	42.8	Signal	E	Preference given to Ogeechee traffic	Signal Operations - Coordination between Liberty and Ogeechee for minimum system delay
OGEECHEE/US 17 - EB	Chevis to SH 204 EB Ramp	5011003	5011	3154.4	22.8	45	0.51	51.9	29.4	Signal	D	Currently under construction	Study next CMS
OGEECHEE/US 17 - WB	Gamble to Chatham Pkwy	5012003	5012	4079.5	26.2	45	0.58	54.7	39.8	Signal	D	Study further for WB and SB right turn bays	Signal Operations - sufficient roadway capacity, excessive intersection delay
	Garden City City Limit to Quacco	5012006	5012	12561.7	20.0	45	0.44	324.8	85.5	Cross Street	E	Currently under construction	Study next CMS
	Quacco to SH 204 WB Ramp	5012007	5012	6651.9	19.0	40	0.47	138.7	53.0	Signal	F	Currently under construction	Study next CMS
	SH 204 EB Ramp to Chevis	5012009	5012	3154.4	20.4	45	0.45	75.1	21.0	Signal	E	Currently under construction	Study next CMS
GWINNETT - EB	May to MLK	5019006	5019	1029.5	15.3	35	0.44	35.2	23.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Jefferson to Barnard	5019009	5019	367.8	12.6	25	0.50	11.6	5.5	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Waters to Wheaton	5019021	5019	773.1	11.2	30	0.37	30.7	17.7	TWSC	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
GWINNETT - WB	Jefferson to Montgomery	5020014	5020	283.5	11.9	25	0.48	13.8	10.3	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	East Lathrop to Stiles	5021006	5021	603.2	9.2	35	0.26	35.8	24.0	Signal	D	Short distance between East Lathrop and Stiles	Signal Operations - Coordinate signals between East Lathrop and Stiles
	I-16 to West Boundary	5021008	5021	1096.5	17.3	35	0.49	27.3	12.3	Cross Street	D	Freq right turns	Construct right turn bay to remove turning traffic from 1 lane approach
	West Boundary to MLK	5021009	5021	1483.5	13.5	35	0.39	53.4	38.5	Signal	D	Eastbound Delays	Coordinate Westbound traffic between Montgomery and MLK to max efficiency and allow more time for EB
	MLK to Montgomery	5021010	5021	344.3	15.4	35	0.44	35.2	25.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
	Montgomery to Whitaker	5021011	5021	1044.5	12.8	35	0.37	52.0	33.7	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
	Habersham to Price	5021015	5021	304	5.0	35	0.14	41.3	24.0	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Randolph to East Broad St	5022006	5022	727.7	15.8	35	0.45	33.4	21.3	Cross Street	D	Canopy - Constrained Corridor, Urban Core	Constrained Corridor - Improvements limited to Optimizing Signals, Delays acceptable in Core

PM Congested Segments Cont.
Table 5

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
OGLETHORPE - EB	Price to East Broad St	5023009	5023	647.8	6.1	25	0.25	68.4	52.8	Signal	E	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
OGLETHORPE - WB	Whitaker to Montgomery	5024007	5024	1041.8	11.0	25	0.44	35.9	24.8	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
US 80 - WB (BAY ST TO STAGECOACH)	Heidt to SH 307 - Bourne	5028003	5028	11979.2	37.5	45	0.83	38.7	33.0	Signal	D	Excessive delay at Dean Forest Rd	All the delay occurs at the intersection and it appears this could be minimized through signal optimization
	Coleman to I-95 NB Ramp	5028005	5028	3267.4	26.4	45	0.59	38.4	16.8	Signal	D	Signal not coordinated with Coleman or Rogers	Coordinate signals between Coleman and Rogers, need to account for Auto Plant
	Parsons to Rogers	5028007	5028	2662	22.2	45	0.49	44.6	18.0	Signal	D	Poor signal coordination between I-95 and Rogers	Coordinate signals between I-95 and Rogers
	Jimmy Deloach to Effingham County	5028012	5028	7829.1	39.8	55	0.72	38.6	0.0	TWSC	E	Minor Delays in the PM Period	Priority I - Widen from 2-5 lanes from County Line to Cherry
SH 21/I 516/DERENNE - EB	SH 30 to Cross Gate	5035009	5035	3013.1	18.1	55	0.33	84.4	57.0	Signal	F	Currently detour due to construction on SR 25	Study next CMS
	Cross Gate to SH 25	5035010	5035	7509.7	33.0	55	0.60	72.3	43.0	Signal	E	Currently detour due to construction on SR 25	Study next CMS
	Smith to Brampton	5035012	5035	6510.3	35.6	55	0.65	43.8	24.5	Signal	D	PM Delays for EB	Long Range Plan calls for Widening SH 21, Consider continuous EB intersection operations
	Montgomery to Bull	5035025	5035	1374.5	6.0	40	0.15	140.9	103.0	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
	Abercorn to Habersham	5035027	5035	733.1	4.7	40	0.12	94.0	74.5	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
	Paulsen to Waters	5035030	5035	1059	8.2	40	0.20	91.5	70.0	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
	Skidaway to La Roche	5035034	5035	2702.5	23.6	40	0.59	36.4	15.3	Signal	D	Sufficient Capacity for turning movements	Consider widening to match section to West

PM Congested Segments Cont.
Table 5

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
SH 21/I 516/DERENNE - WB	La Roche to Skidaway	5036002	5036	2702.4	19.2	40	0.48	53.6	31.7	Signal	D	1 lane section, long delays at Skidaway	Consider widening approach to provide 2 thru lanes to match west side of int
	Harry Truman SB Ramp to Waters	5036005	5036	1925.4	14.0	40	0.35	68.7	50.7	Signal	E	PM WB needs progression from Truman to Bull	Coordinate signal timing for outbound PM traffic through Bull, Consider in E-W Study
	Reynolds to Habersham	5036008	5036	1275.4	10.8	40	0.27	75.7	44.0	Signal	E	PM WB needs progression from Truman to Bull	Coordinate signal timing for outbound PM traffic through Bull
	Smith to SH 25	5036025	5036	3445.5	22.8	55	0.41	77.7	34.4	Signal	E	Excessive delays due to high truck volumes	Priority IB - Widen 4-6, Heavy PM volumes with Truck traffic - construct storage for trucks
	SH 25 to Cross Gate	5036026	5036	7509.7	26.6	55	0.48	135.5	55.8	Signal	F	Currently under construction on SR 25	Study next CMS
BAY ST/GEN MCINTOSH /PRESIDENT/ISLAND EXPWY - EB	East Broad St to President	5041021	5041	1850.7	17.8	40	0.44	42.1	17.5	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
BAY ST/GEN MCINTOSH/ PRESIDENT/ISLAND EXPWY - WB	I-516 to Lathrop	5042023	5042	397.7	15.9	35	0.45	20.2	13.0	Cross Street	D	Closely spaced signals between Graham and Lathrop	Coordinate signals between Graham and Lathrop
ROGERS/QUACCO - NB	Pine Barren to US 80 EB	5045010	5045	8502.8	23.5	39	0.60	102.0	79.8	TWSC	F	Short Distance between US 80 E/W	Signal Operations - Coordinate signals between US 80 E/W
DEAN FOREST/ BOURNE - NB	Garden City City Limit to SH 21	5051008	5051	2474.6	26.1	45	0.58	67.7	36.0	Cross Street	D	Funded Project for construction FY 2004-06 (PRC)	PI #562165 will widen to include center turn lane, lengthen bay for EB Rt across RR tracks
DEAN FOREST/BOURNE - SB	SH 25 to SH 21	5052002	5052	5674.7	27.8	45	0.62	66.7	38.8	Signal	E	Heavy Truck Traffic, construction detour	High Percentage of Trucks and many stopped for queuing at Port - Widen shoulder to provide storage
	Old Louisville Rd to US 80	5052006	5052	1555.5	13.1	45	0.29	66.7	49.3	Flashing Yellow	F	Excessive Delay at US 80	Priority IC - Operational will improve corridor operations at US 80
CHATHAM PKWY - SB	US 80 to I-16 WB Ramp	5056002	5056	5761.9	31.8	45	0.71	36.6	17.0	Signal	D	Lone signal after long distance uncontrolled leads to random arrivals	Signal Operations - sufficient roadway capacity, excessive intersection delay
	I-16 EB Ramp to US 17	5056004	5056	8648.5	33.5	45	0.74	54.7	41.7	Signal	D	Study further for WB and SB right turn bays	Signal Operations - sufficient roadway capacity, excessive intersection delay

PM Congested Segments Cont.
Table 5

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
SH 21/I 516/DERENNE - WB	La Roche to Skidaway	5036002	5036	2702.4	19.2	40	0.48	53.6	31.7	Signal	D	1 lane section, long delays at Skidaway	Consider widening approach to provide 2 thru lanes to match west side of int
	Harry Truman SB Ramp to Waters	5036005	5036	1925.4	14.0	40	0.35	68.7	50.7	Signal	E	PM WB needs progression from Truman to Bull	Coordinate signal timing for outbound PM traffic through Bull, Consider in E-W Study
	Reynolds to Habersham	5036008	5036	1275.4	10.8	40	0.27	75.7	44.0	Signal	E	PM WB needs progression from Truman to Bull	Coordinate signal timing for outbound PM traffic through Bull
	Smith to SH 25	5036025	5036	3445.5	22.8	55	0.41	77.7	34.4	Signal	E	Excessive delays due to high truck volumes	Priority IB - Widen 4-6, Heavy PM volumes with Truck traffic - construct storage for trucks
	SH 25 to Cross Gate	5036026	5036	7509.7	26.6	55	0.48	135.5	55.8	Signal	F	Currently under construction on SR 25	Study next CMS
BAY ST/GEN MCINTOSH /PRESIDENT/ISLAND EXPWY - EB	East Broad St to President	5041021	5041	1850.7	17.8	40	0.44	42.1	17.5	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
BAY ST/GEN MCINTOSH/ PRESIDENT/ISLAND EXPWY - WB	I-516 to Lathrop	5042023	5042	397.7	15.9	35	0.45	20.2	13.0	Cross Street	D	Closely spaced signals between Graham and Lathrop	Coordinate signals between Graham and Lathrop
ROGERS/QUACCO - NB	Pine Barren to US 80 EB	5045010	5045	8502.8	23.5	39	0.60	102.0	79.8	TWSC	F	Short Distance between US 80 E/W	Signal Operations - Coordinate signals between US 80 E/W
DEAN FOREST/ BOURNE - NB	Garden City City Limit to SH 21	5051008	5051	2474.6	26.1	45	0.58	67.7	36.0	Cross Street	D	Funded Project for construction FY 2004-06 (PRC)	PI #562165 will widen to include center turn lane, lengthen bay for EB Rt across RR tracks
DEAN FOREST/BOURNE - SB	SH 25 to SH 21	5052002	5052	5674.7	27.8	45	0.62	66.7	38.8	Signal	E	Heavy Truck Traffic, construction detour	High Percentage of Trucks and many stopped for queuing at Port - Widen shoulder to provide storage
	Old Louisville Rd to US 80	5052006	5052	1555.5	13.1	45	0.29	66.7	49.3	Flashing Yellow	F	Excessive Delay at US 80	Priority IC - Operational will improve corridor operations at US 80
CHATHAM PKWY - SB	US 80 to I-16 WB Ramp	5056002	5056	5761.9	31.8	45	0.71	36.6	17.0	Signal	D	Lone signal after long distance uncontrolled leads to random arrivals	Signal Operations - sufficient roadway capacity, excessive intersection delay
	I-16 EB Ramp to US 17	5056004	5056	8648.5	33.5	45	0.74	54.7	41.7	Signal	D	Study further for WB and SB right turn bays	Signal Operations - sufficient roadway capacity, excessive intersection delay
MARTIN LUTHER KING - NB	Exchange/52nd St to Victory	5059001	5059	1908	15.4	35	0.44	45.2	25.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
	37th St to Anderson	5059003	5059	2045.8	17.5	35	0.50	42.8	30.0	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
	Broughton to Bay St	5059011	5059	771.2	10.0	35	0.29	46.8	30.7	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor

PM Congested Segments Cont.
Table 5

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
MARTIN LUTHER KING - SB	Broughton to Oglethorpe	5060003	5060	714.8	12.5	35	0.36	39.9	24.4	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
	Oglethorpe to Liberty	5060004	5060	1036.5	10.3	35	0.29	47.1	31.6	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MONTGOMERY - NB	Victory to 37th St	5061007	5061	1832.1	16.0	35	0.46	49.4	25.9	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Oglethorpe to Broughton	5061014	5061	804.2	11.9	30	0.40	40.5	23.2	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Franklin SQ N to Bay St	5061017	5061	247.1	9.4	30	0.31	25.3	14.8	Cross Street	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
MONTGOMERY - SB	37th St to Victory	5062005	5062	1832.1	17.8	35	0.51	36.7	15.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Church Driveway to DeRenne	5062010	5062	1359.8	11.3	35	0.32	73.0	53.3	Signal	E	Canopy - Constrained Corridor, Minor Approach	Consider the addition of a right turn bay
	Franklin SQ N to Franklin SQ S	5062015	5062	317.3	11.9	30	0.40	12.8	0.6	Cross Street	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
WHITAKER - SB	Bay St to Broughton	5064001	5064	852.7	9.6	25	0.38	62.5	42.7	Signal	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Broughton to Oglethorpe	5064002	5064	809.9	15.5	25	0.62	39.9	20.6	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	West Park to Henry	5064007	5064	607	17.3	35	0.49	19.0	9.6	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	43th St to Victory	5064011	5064	898.6	13.3	35	0.38	45.7	28.5	Flashing Yellow	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
BULL/WHITE BLUFF - NB	Willow to Windsor	5065004	5065	901.8	20.5	40	0.51	18.5	8.3	Flashing Yellow	D	Signal Operations inefficient due to offset geometry	Improvements limited due to geometry, optimize signal timing and consider realignment for eastern approach
	Montgomery Cross to Mall Driveway	5065011	5065	1406	22.5	40	0.56	36.1	24.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
	Mall Driveway to Abercorn	5065012	5065	710.5	11.1	40	0.28	75.0	58.0	Signal	E	Abercorn volumes very heavy	NB/SB left turns very light, consider restricting them, coordinate signal with Mall Dr
	Stephenson Ave / Hunter Airfield to Johnston	5065015	5065	3200	23.4	40	0.58	91.9	40.7	Signal	F	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations, Left turn signal control
	Johnston to Hampstead	5065016	5065	1051.8	9.8	40	0.25	103.7	62.3	Signal	F	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
	Hampstead to DeRenne	5065017	5065	1250	4.3	35	0.12	177.4	132.7	Signal	F	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations, study in E-W study

PM Congested Segments Cont.
Table 5

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BULL/WHITE BLUFF - SB	61st St to DeRenne	5066005	5066	3527.4	23.0	35	0.66	35.8	19.0	Signal	D	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations
	Eisenhower to Abercorn	5066010	5066	2720.2	9.2	40	0.23	179.3	129.3	Signal	F	Canopy - Constrained Corridor, Minor Approach	NB/SB left turns very light, consider restricting them, add NB Right turn overlap
	Mall Driveway to Montgomery Cross	5066012	5066	1406	11.0	40	0.27	71.4	44.6	Signal	E	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
DRAYTON - NB	Victory to 37th St	5067001	5067	1712.5	17.4	35	0.50	39.3	19.5	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
ABERCORN - NB	I-95 to Gateway	5069003	5069	396	8.2	55	0.15	27.7	16.7	Cross Street	F	Delays between I-95 S and Gateway	Priority II - Operational at I-95, Coordinate signals between I-95 South ramp and Gateway
	Pine Grove to King George	5069006	5069	3413.4	28.2	55	0.51	69.3	40.3	Signal	E	Excessive eastbound delays at King George	Priority II - Widen 4-6 from US 17 to King George, accel lane for EB rights, widen King George appr
	City Limit to Rio	5069009	5069	1579.9	26.3	55	0.48	26.9	2.7	City Limit	D	Excessive delays at Rio	Priority IC - Widen 4-6 from Rio to Truman, Optimize from Rio to King George
	Apache to Science	5069011	5069	1401.1	20.1	45	0.45	42.4	29.0	Signal	D	Delays throughout corridor	Priority IC - Widen 4-6 from Rio to Truman, Coordinate between Rio and King George
	Mercy to Largo	5069013	5069	1390.8	11.8	45	0.26	57.6	38.3	Signal	E	Intersection Delays at Largo	Priority IB - Operational, Priority IC - Widen 4-6 from Rio to Truman
	Television Circle to Montgomery Cross	5069018	5069	2959.3	23.9	45	0.53	48.0	29.3	Signal	D	Oversaturated Intersection	Consider NB and SB right turn lanes and optimize signal, Truman ext may relieve some volume
	Mall Driveway to White Bluff	5069020	5069	1234.6	7.3	45	0.16	93.9	71.3	Signal	F	short distance between Mall and White Bluff	Coordinate signals between Mall driveway and White Bluff, review turning movements
	White Bluff to Mall Blvd	5069021	5069	1536.8	9.3	45	0.21	87.2	61.5	Signal	F	Excessive Intersection Delays	Priority IB - Operational, NB right turn lane planned, will free up some time for others
	Mall Blvd to Eisenhower	5069022	5069	1555.4	22.5	45	0.50	65.4	45.0	Signal	E	Poor signal coordination	Coordinate signals along Abercorn
	Eisenhower to Stephenson	5069023	5069	1364.3	16.9	45	0.38	47.2	28.3	Signal	D	Currently under construction on Stephenson	Coordinate signals along Abercorn, Study next CMS after construction
	Lee Blvd to Janet	5069026	5069	1361.3	10.7	45	0.24	91.1	58.4	Signal	F	Poor signal coordination	Coordinate signals along Abercorn
	Janet to Private Drive	5069027	5069	1124.9	24.1	45	0.54	45.5	21.4	Signal	D	Poor signal coordination	Coordinate signals along Abercorn
	Private Drive to DeRenne	5069028	5069	729.3	4.4	40	0.11	107.0	81.6	Signal	F	Excessive Intersection Delays	Priority IB - Operational - Optimize Derenne and Abercorn will improve, NB right turn lane planned

PM Congested Segments Cont.
Table 5

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ABERCORN - NB	Washington to Victory	5069032	5069	1167.4	15.6	35	0.45	37.8	23.0	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ABERCORN - SB	37th St to Victory	5070002	5070	1716.6	17.8	35	0.51	46.2	33.0	Signal	D	Urban Core	Constrained Corridor - Optimize Victory then Abercorn will benefit from more time
	63rd St to DeRenne	5070006	5070	2759.3	22.7	40	0.57	47.2	31.0	Signal	D	Excessive Intersection Delays	Optimize Derenne and Abercorn, NB right turn lane planned
	Jackson to Stephenson	5070011	5070	1300.9	16.1	45	0.36	47.9	30.0	Signal	D	Excessive Delays at Stephenson	Coordinate signals between DeRenne and Stephenson
	Mall Driveway to Montgomery Cross	5070016	5070	1638.4	18.6	45	0.41	54.3	32.0	Signal	D	Oversaturated Intersection	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn on Montgomery Cross
	Mercy to Science	5070023	5070	3831.4	29.6	45	0.66	39.0	20.5	Signal	D	Delays throughout corridor	Priority IC - Widen 4-6 from Rio to Truman
	Apache to Rio	5070025	5070	2685.1	15.8	45	0.35	127.9	70.5	Signal	F	Excessive delays at Rio	Priority IC - Widen 4-6 from Rio to Truman, Optimize from Rio to King George
	Veterens Pkwy to King George	5070028	5070	5532.3	27.0	55	0.49	144.9	64.5	Signal	F	Westbound Delays to King George	Priority IC - Widen 4-6 between King George and Rio, Priority II - Widen 6-8, widen King George appr
	I-95 to I-95 SB Ramp	5070033	5070	691	21.8	55	0.40	21.5	9.2	Cross Street	D	Delays between I-95 S and Gateway	Priority II - Operational at I-95, Coordinate signals between I-95 South ramp and Gateway
PRICE - SB	Bay St to Broughton	5072001	5072	743.8	16.6	30	0.55	49.5	11.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Anderson to 37th St	5072008	5072	1991.1	14.5	35	0.41	54.5	39.8	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	37th St to Victory	5072009	5072	1781.3	19.2	35	0.55	36.0	21.8	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
EAST BROAD ST - NB	40th St to 37th St	5075002	5075	922	16.8	35	0.48	29.9	17.3	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	Gwinnett to Liberty	5075006	5075	2845.5	23.4	35	0.67	40.9	22.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
SH 25 (CROSSGATE/BOURNE) - NB	SH 25 Merge to SH 21 Spur	5079003	5079	3088.4	26.7	45	0.59	47.9	29.2	Signal	D	Sufficient Roadway Capacity but High Delays	Signal Operations - High Truck Volumes and construction detour, study again next CMS
JOHNNY MERCER - EB	Walgreens to Wilminghton Island	5083005	5083	1348.8	13.3	35	0.38	49.0	28.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Optimize Signal, add channelized NB right turn, Access Mgmt with WB cont flow
JOHNNY MERCER - WB	White Marsh to US 80	5084009	5084	4488	27.2	45	0.61	44.8	30.3	Signal	D	Canopy - Constrained Corridor	Priority II - Operational, consider WB US 80 Continuous movement

PM Congested Segments Cont.
Table 5

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
HODGESON MEMORIAL - NB	Mall Way to Mall Blvd	5089003	5089	500.3	8.7	35	0.25	38.2	27.7	Signal	D	Short distance between Mall Way and Mall Blvd	Signal Operations - Coordinate signals between Mall Way and Mall Blvd
HODGESON MEMORIAL - SB	Stephenson to Eisenhower	5090001	5090	1368.5	9.3	35	0.26	77.5	61.3	Signal	E	Currently under construction on Stephenson	Study next CMS
STEPHENSON - EB	White Bluff to Abercorn	5091001	5091	793.1	6.2	30	0.21	70.3	55.8	Signal	E	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
STEPHENSON - WB	Hodgeson Memorial to Habersham	5092003	5092	1012.3	10.6	25	0.43	43.8	26.8	Signal	D	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
	Habersham to Abercorn	5092004	5092	702.3	10.8	30	0.36	44.2	32.3	Signal	D	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
	Abercorn to White Bluff	5092005	5092	793.1	12.6	30	0.42	52.5	41.0	Signal	D	Consistent WB Delays	Consider widening WB approach to allow 2 through lanes
HABERSHAM - NB	Johnston to DeRenne	5093002	5093	2430.1	7.6	35	0.22	176.3	106.7	Cross Street	F	Minor Approach to SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
	Victory to 37th St	5093007	5093	1712.5	15.2	30	0.51	40.4	25.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
HABERSHAM - SB	63rd St to DeRenne	5094006	5094	2741.8	21.1	35	0.60	35.0	14.0	Signal	D	Minor Approach to SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
	Johnston to Stephenson	5094008	5094	3189.1	7.9	35	0.23	241.3	126.0	Cross Street	F	Currently under construction on Stephenson	Stephenson widening will help Habersham
BONNY BRIDGE - WB	SH 25 to SH 21	5096002	5096	4947.8	21.9	40	0.55	74.3	47.8	Signal	E	Delays at SH 21, Minor approach	Delays expected at minor appr to SH 21, Optimize Signal
GULFSTREAM/CROSSGATE/IDA/AIRWAYS - EB	Patrick Graham Terminal to SH 21	5097009	5097	12131.6	21.0	40	0.53	224.0	120.0	Cross Street	D	Currently detour due to construction on SR 25	Study next CMS
	SH 21 to SH 25	5097010	5097	4673.4	26.6	41	0.65	42.3	13.0	Signal	D	Currently detour due to construction on SR 25	Study next CMS
GULFSTREAM/CROSSGATE/IDA/AIRWAYS - WB	SH 25 to SH 21	5098002	5098	4673.4	26.5	41	0.65	54.8	33.6	Signal	D	Currently detour due to construction on SR 25	Study next CMS
PENN WALLER - NB	Wassaw to Johnny Mercer	5103004	5103	1115.9	14.9	35	0.43	33.4	22.3	Cross Street	D	Minor Approach to Johnny Mercer	Side street delays are expected
HARMON - NB	37th St to Anderson	5105004	5105	1999.1	14.9	25	0.59	37.9	33.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions

PM Congested Segments Cont.
Table 5

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
HARMON - SB	Henry to Anderson	5106004	5106	321.2	4.5	25	0.18	35.4	31.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	39th St to Victory	5106007	5106	1056.6	13.1	25	0.52	25.9	18.7	AWSC	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired cond, Stop sign upstream restricts coordination
WATERS/WHITFIELD/DIAMOND CAUSWAY - NB	City Limit to Montgomery Cross	5107010	5107	2227.8	15.6	45	0.35	67.3	53.7	City Limit	F	Heavy left turn volumes overflow storage bays	Optimize signal timing to maximize flowrate for left turn vehicles, this will free-up green time for other phases
	Eisenhower to Stephenson	5107013	5107	1307.8	15.2	40	0.38	45.2	25.7	Signal	D	Corridor will improve with extension of Truman	Study next CMS
	Stephenson to DeRenne	5107014	5107	5497.7	11.3	35	0.32	251.2	111.7	Signal	F	Corridor will improve with extension of Truman	Study next CMS, review in E-W Study
WATERS/WHITFIELD/DIAMOND CAUSWAY - SB	Gwinnett to Henry	5108002	5108	1592.1	19.0	30	0.63	25.2	14.3	AWSC	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	37th St to Victory	5108005	5108	1705.4	11.2	30	0.37	67.4	44.7	Signal	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
	65th St to DeRenne	5108012	5108	1973.7	17.2	35	0.49	50.1	13.0	Signal	D	Corridor will improve with extension of Truman	Study next CMS
	DeRenne to Stephenson	5108013	5108	5497.8	14.0	35	0.40	159.8	47.3	Signal	F	Corridor will improve with extension of Truman	Study next CMS
	Stephenson to Eisenhower	5108014	5108	1307.7	13.3	40	0.33	48.8	29.7	Signal	D	Corridor will improve with extension of Truman and Whitfield widening	Study next CMS
	Mall Blvd to Montgomery Cross	5108016	5108	1919.6	17.9	40	0.45	41.1	21.0	Signal	D	Corridor will improve with extension of Truman and Whitfield widening	Study next CMS
FERGUSON - NB	Shipyard to Diamond Causeway	5113002	5113	6509.6	30.5	40	0.76	36.6	15.3	TWSC	E	Canopy - Constrained Corridor	Constrained Corridor - Secondary roadway for access, higher speeds not desired
FERGUSON - SB	La Roche to Skidaway	5114001	5114	6100.5	26.2	40	0.66	54.5	19.5	TWSC	F	Canopy - Constrained Corridor	Constrained Corridor - Secondary roadway for access, higher speeds not desired
SKIDAWAY - NB	Montgomery Cross to Eisenhower	5115004	5115	3950.4	17.6	35	0.50	79.7	47.7	Signal	E	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
	DeRenne to La Roche	5115007	5115	3331.8	20.5	35	0.59	50.6	22.3	Signal	D	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
	La Roche to 52nd St	5115008	5115	2124.2	14.8	35	0.42	58.7	18.0	Signal	E	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
	Colorado to Victory	5115010	5115	953.4	8.4	35	0.24	63.7	47.3	Signal	E	Delay at Victory, sufficient capacity for all mvmt	No dedicated right turn bay, may consider, coordinating Victory timing will improve int ops

PM Congested Segments Cont.
Table 5

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
SKIDAWAY - SB	Wheaton to Henry/Anderson	5116001	5116	1912.8	14.2	30	0.47	48.0	37.3	TWSC	E	Minor Approach to 5-legged intersection	Optimize Signal at Anderson
	36th St to Victory	5116003	5116	2607.6	19.7	35	0.56	42.6	24.0	Signal	D	Delay at Victory, sufficient capacity for all mvmt	No dedicated right turn bay, may consider, coordinating Victory timing will improve int ops
	Colorado to 52nd St	5116005	5116	2264.6	16.4	35	0.47	52.0	27.7	Signal	D	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
	La Roche to DeRenne	5116007	5116	3331.7	19.9	35	0.57	50.1	24.3	Signal	D	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
	Bonna Bella to Eisenhower	5116009	5116	4611.3	21.4	40	0.53	68.5	29.7	Signal	E	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
PENNSYLVANIA - NB	Capital to Islands Expressway	5117003	5117	1858.6	13.8	30	0.46	63.8	45.5	Signal	E	Minor Approach at Bay	Cross Street Delay Expected
PENNSYLVANIA - SB	Islands Expressway to Capital	5118001	5118	1858.6	18.1	30	0.60	58.4	16.3	Signal	E	Signal Operations at Capital	Signal Operations - at Capital
TIBET - EB	Largo to Abercorn	5121002	5121	4218.9	17.6	35	0.50	82.4	56.3	AWSC	F	Minor Approach at Abercorn	TIP #532570 for Intersection Improvement
TIBET - WB	White Bluff to Abercorn	5122001	5122	704.2	13.9	35	0.40	52.2	38.7	Signal	D	Minor Approach at Abercorn	TIP #532570 for Intersection Improvement
	Largo to Middleground	5122003	5122	2293.9	20.9	30	0.70	26.1	19.8	AWSC	D	Minor Approach at Middleground	Cross Street Delay Expected
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	DeRenne to Skidaway	5123006	5123	3966.4	19.7	35	0.56	62.8	39.0	Signal	E	Delays at Skidaway and SR 21	Priority II - Operational from City limits to Skidaway, will improve with Skidaway widening, Optimize signal timing
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Harry Truman NB Ramp to Skidaway	5124003	5124	4533.9	19.0	30	0.63	60.9	48.0	Signal	E	Delays at Skidaway	Priority III - Operational between Waters and Skidaway, will improve with Skidaway widening, Optimize signal timing
	Skidaway to DeRenne	5124004	5124	3966.4	25.3	35	0.72	36.4	16.0	Signal	D	Delays at Skidaway and SR 21	Priority II - Operational from City limits to Skidaway

PM Congested Segments Cont.
Table 5

Route and Direction	Roadway Segment	Segment ID	Route ID	Distance (Feet)	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
VICTORY/SAFOLD/ISLANDEXPRESSWAY/US 80 - EB	Bull to Abercorn	5129009	5129	817.4	18.3	35	0.52	39.2	31.3	Signal	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
	Paulsen to Waters	5129014	5129	1255.7	16.8	35	0.48	40.5	30.3	Signal	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
	Bee Rd to Harry Truman SB Ramp	5129016	5129	2149.2	18.1	40	0.45	49.5	30.3	Signal	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
	Walin to Skidaway	5129019	5129	1174.6	11.3	40	0.28	75.3	45.5	Signal	E	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
	Thunderbolt City Limit to Whatley	5129022	5129	609.8	16.0	35	0.46	35.5	24.0	Cross Street	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
VICTORY/SAFOLD/ISLANDEXPRESSWAY/US 80 - WB	Skidaway to Walin	5130021	5130	1174.6	8.4	40	0.21	73.1	55.3	Signal	E	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
	Bee Rd to Waters	5130025	5130	2834.3	24.1	40	0.60	42.0	29.8	Signal	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
	Habersham to Abercorn	5130030	5130	716	7.1	35	0.20	55.3	36.7	Signal	E	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
	Hopkins to Stiles	5130037	5130	3300.2	21.6	35	0.62	58.3	34.5	Signal	E	Delays at intersection with Ogeechee	Study intersection for possible signalization

Table 6 – Top 20 Most Congested Segments

Rank	Route and Direction	Roadway Segement	Segment ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
1	WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Stephenson to DeRenne	5107014	5497.7	PM	11.3	35	0.32	251.2	111.7	Signal	F	Corridor will improve with extension of Truman	Study next CMS, review in E-W Study
			5107014	5497.7	MD	16.1	35	0.46	130.3	62.0	Signal	F		
			5107014	5497.7	AM	18.7	35	0.53	109.4	49.7	Signal	F		
2	HABERSHAM - SB	Johnston to Stephenson	5094008	3189.1	PM	7.9	35	0.23	241.3	126.0	Cross Street	F	Currently under construction on Stephenson	Stephenson widening will help Habersham
			5094008	3189.1	AM	17.5	35	0.50	66.7	44.3	Cross Street	D		
3	BULL/WHITE BLUFF - SB	Eisenhower to Abercorn	5066010	2720.2	PM	9.2	40	0.23	179.3	129.3	Signal	F	Canopy - Constrained Corridor, Minor Approach	NB/SB left turns very light, consider restricting them, add NB Right turn overlap.
			5066010	2720.2	AM	26.2	40	0.66	44.8	33.5	Signal	D		
			5066010	2720.2	MD	23.5	40	0.59	44.1	29.3	Signal	D		
4	MALL BLVD - WB	Mall Way to Abercorn	5006004	889.8	PM	5.0	40	0.12	179.2	138.0	Signal	F	Planned Intersection TIP	Consider change in lane use for shared dual left, study addition of NB right turn.
			5006004	889.8	AM	9.6	40	0.24	76.1	57.5	Signal	E	Excessive delays back through Mall Way	
5	BULL/WHITE BLUFF - NB	Hampstead to DeRenne	5065017	1250	PM	4.3	35	0.12	177.4	132.7	Signal	F	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations, study in E-W study
			5065017	1250	MD	6.2	35	0.18	111.7	89.0	Signal	F		
			5065017	1250	AM	8.2	35	0.23	91.2	69.8	Signal	F		
6	HABERSHAM - NB	Johnston to DeRenne	5093002	2430.1	PM	7.6	35	0.22	176.3	106.7	Cross Street	F	Minor Approach to SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
			5093002	2430.1	AM	13.8	35	0.39	82.6	67.7	Cross Street	E		
7	WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	DeRenne to Stephenson	5108013	5497.8	PM	14.0	35	0.40	159.8	47.3	Signal	F	Corridor will improve with extension of Truman	Study next CMS
8	ABERCORN - SB	Veterens Pkwy to King George	5070028	5532.3	PM	27.0	55	0.49	144.9	64.5	Signal	F	Westbound Delays to King George	Priority IC - Widen 4-6 between King George and Rio, Priority II - Widen 6-8, widen King George approach.
			5070028	5532.3	MD	36.5	55	0.66	38.2	22.0	Signal	D		
9	SH 21/I 516/DERENNE - EB	Montgomery to Bull	5035025	1374.5	PM	6.0	40	0.15	140.9	103.0	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study.
			5035025	1374.5	MD	15.2	40	0.38	69.4	48.7	Signal	E		
			5035025	1374.5	AM	21.0	40	0.53	60.1	39.0	Signal	E		
10	OGEECHEE/US 17 - WB	Quacco to SH 204 WB Ramp	5012007	6651.9	PM	19.0	40	0.47	138.7	53.0	Signal	F	Currently under construction	Study next CMS
11	SH 21/I 516/DERENNE - EB	Cross Gate to SH 25	5035010	7509.7	AM	29.3	55	0.53	138.1	64.0	Signal	F	Currently detour due to construction on SR 25	Study next CMS
			5035010	7509.7	MD	25.2	55	0.46	137.1	44.0	Signal	F		
			5035010	7509.7	PM	33.0	55	0.60	72.3	43.0	Signal	E		

Top 20 Segments Continued
Table 6

Rank	Route and Direction	Roadway Segement	Segment ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
12	SH 21/I 516/DERENNE - WB	SH 25 to Cross Gate	5036026	7509.7	PM	26.6	55	0.48	135.5	55.8	Signal	F	Currently under construction on SR 25	Study next CMS
13	ABERCORN - SB	Apache to Rio	5070025	2685.1	PM	15.8	45	0.35	127.9	70.5	Signal	F	Excessive delays at Rio	Priority IC - Widen 4-6 from Rio to Truman, Optimize from Rio to King George
14	SKIDAWAY - SB	La Roche to DeRenne	5116007	3331.7	AM	13.3	35	0.38	126.9	85.5	Signal	F	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
			5116007	3331.7	PM	19.9	35	0.57	50.1	24.3	Signal	D		
15	BULL/WHITE BLUFF - SB	61st St to DeRenne	5066005	3527.4	MD	13.6	35	0.39	118.2	92.5	Signal	F	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations
			5066005	3527.4	PM	23.0	35	0.66	35.8	19.0	Signal	D		
			5066005	3527.4	AM	23.0	32	0.72	35.5	22.8	Signal	D		
16	MONTGOMERY CROSS - EB	Tibet Ave to Abercorn	5003002	8340.3	PM	20.9	35	0.60	113.1	89.0	Signal	F	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn, study approach at Abercorn
			5003002	8340.3	AM	23.8	35	0.68	85.8	67.0	Signal	F		
			5003002	8340.3	MD	25.8	35	0.74	57.7	69.5	Signal	E		
17	MONTGOMERY CROSS - WB	Sallie Mood to Waters	5004002	4851.7	MD	18.1	45	0.40	111.0	94.5	Signal	F	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
			5004002	4851.7	AM	24.1	45	0.53	73.7	37.6	Signal	E		
			5004003	3078.1	PM	19.1	35	0.55	53.5	38.3	Signal	D		
18	ABERCORN - NB	Private Drive to DeRenne	5069028	729.3	PM	4.4	40	0.11	107.0	81.6	Signal	F	Excessive Intersection Delays	Priority IB - Operational - Optimize Derenne and Abercorn will improve, NB right turn lane planned
			5069028	729.3	AM	5.6	40	0.14	83.8	66.2	Signal	F		
			5069028	729.3	MD	11.2	40	0.28	42.8	24.7	Signal	D		
19	DEAN FOREST/BOURNE - SB	SH 25 to SH 21	5052002	5674.7	AM	22.9	45	0.51	104.9	93.8	Signal	F	Heavy Truck Traffic, construction detour	High Percentage of Trucks and many stopped for queuing at Port - Widen shoulder to provide storage
			5052002	5674.7	MD	27.7	45	0.62	72.5	56.7	Signal	E		
			5052002	5674.7	PM	27.8	45	0.62	66.7	38.8	Signal	E		
20	ABERCORN - NB	Pine Grove to King George	5069006	3413.4	AM	26.2	55	0.48	103.9	59.5	Signal	F	Excessive eastbound delays at King George	Priority II - Widen 4-6 from US 17 to King George, accel lane for EB rights, widen King George approach.
			5069006	3413.4	MD	19.4	55	0.35	85.3	58.0	Signal	F		
			5069006	3413.4	PM	28.2	55	0.51	69.3	40.3	Signal	E		

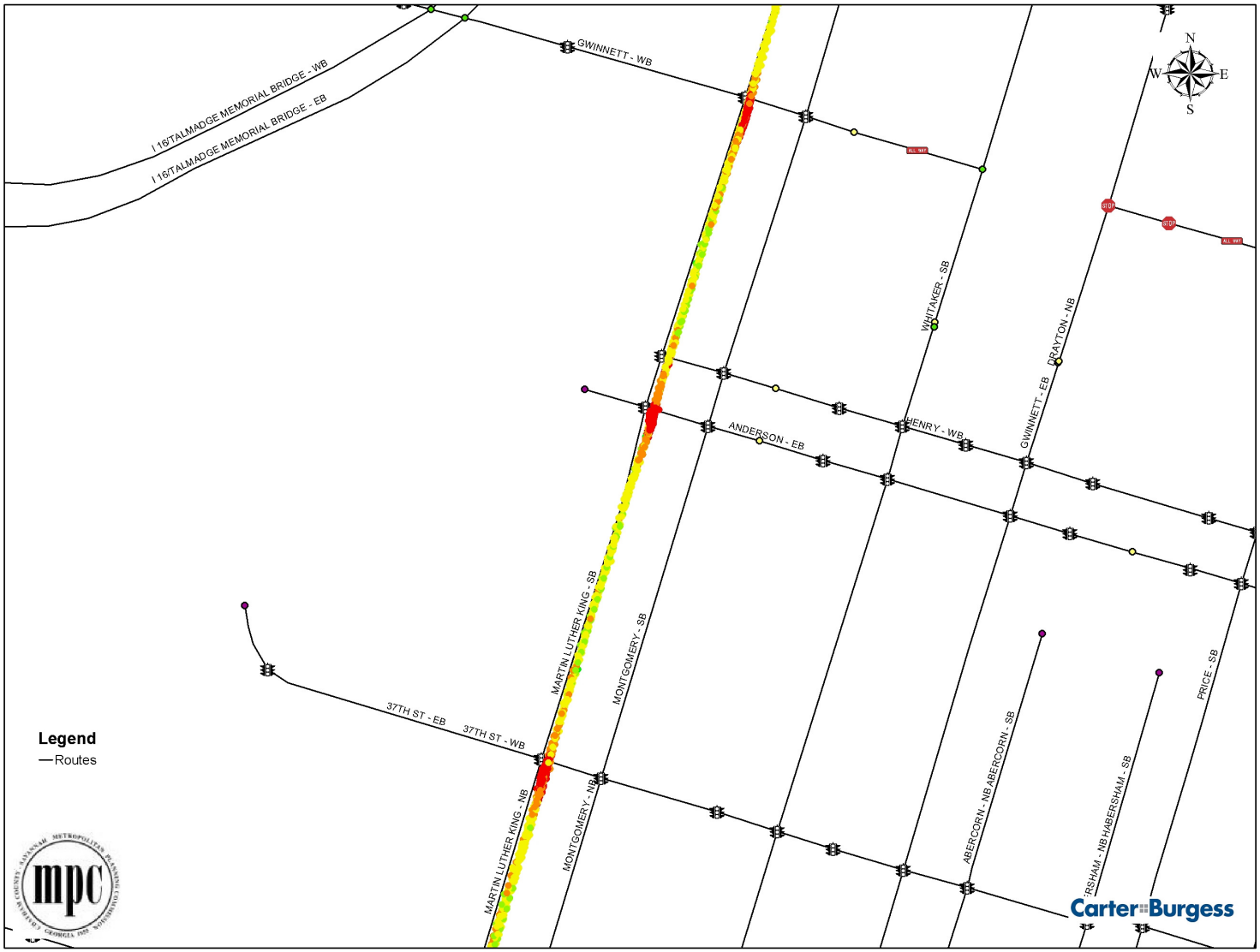


Figure 10 – Example 1-Second Speed on Congested Segment Near Signal

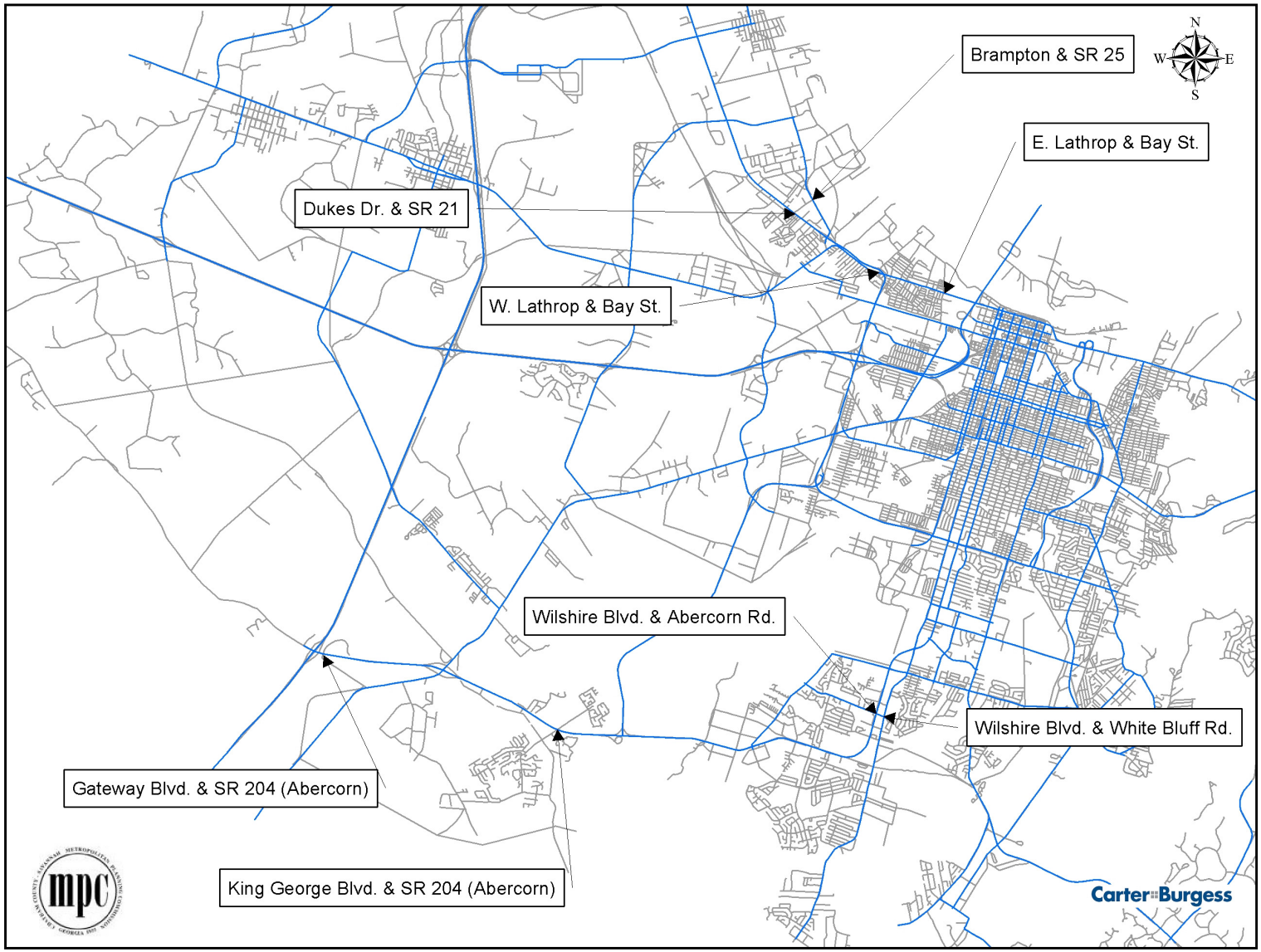


Figure 11 – Isolated Intersection Locations

7.0 CONCLUSIONS

Based on average segment delay and the resulting approach LOS, the majority of roadways studied are operating under stable or free-flow conditions. Only 10% of the roadways were operating under congested conditions during the Winter 2003-2004 season. The primary criterion used for determining congestion was approach LOS as included in the summary tables.

On many of the segments with CI's in the congested range (< 70% of posted speed), the congestion occurred only near a stop sign or traffic signal and had acceptable conditions through the remainder of the segment. This is demonstrated by referring to the 0.1-mile segments as shown in **Figure 11** and observing the frequency of low speed near the segment nodes or intersections.

The U.S. Department of Transportation's Federal Highway Administration (FHWA) has produced a video showing that retiming traffic signals is one of the more cost-effective techniques available to state and local agencies in their efforts to manage congestion and growing travel demand. The video, "It's About Time, Traffic Signal Management: Cost-Effective Street Capacity and Safety," demonstrates how signal timing on roads can improve air quality while reducing fuel consumption, decreasing traffic congestion, and saving time for commercial and emergency vehicles. Two-thirds of all highway miles in the United States are roads with traffic signals. According to the Institute of Transportation Engineers, the United States has about 300,000 traffic signals. The performance of about 75 percent of them could be improved easily and inexpensively by updating equipment or by simply adjusting the timing.

As required by FHWA, every effort must be made to optimize the existing system prior to implementing capital improvements. The operational improvements discussed above are ones that have the largest benefit cost ratio. Other improvements that should be considered are related to TDM, and TSM type projects. Transit type projects would fall into the category of travel demand management (TDM). At the time of this project, the amount of data available in GIS was limited for comparison to the results. One observation in the area of transit operations relates to the use of bus bays. There are varying opinions on the benefits of bays, but there are many situations where "far side" bays on the downstream side of the intersection would remove the bus from the mainlanes and allow through traffic to continue. This would also provide opportunities for the bus to depart the bay in gaps created by the intersection control.

As noted in the Appendix, a few locations would benefit from TSM improvements or localized intersection geometric additions. These would primarily include turn bay extensions to allow improved access to the existing turn bays so they are not blocked by queued vehicles in the through lanes.

Other congested segments were found to include plans within the TIP or Long Range Plan. Those situations were noted as such.

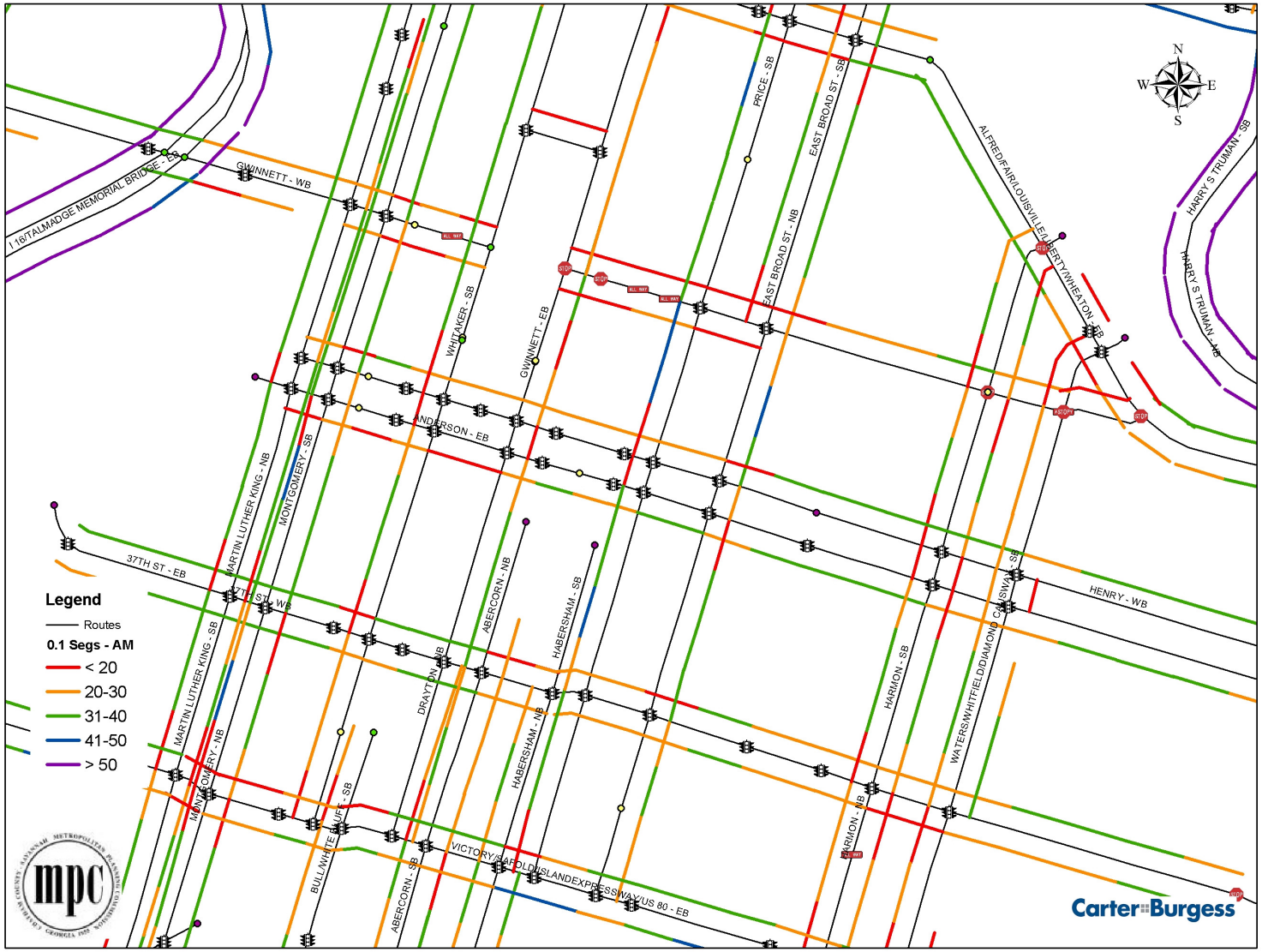


Figure 12 – 0.1 Mile Segments

8.0 RECOMMENDATIONS

Recommendations for each section of congested roadway are shown in **Tables 4 and 5** in the right-hand columns.

Recommendations for the 20 sections of roadway with the worst LOS/Delay are summarized in **Table 6**.

Improvements include signal timing optimization, traffic signal coordination for improved progression, access management, multi-modal considerations, new signals where stop signs currently exist, and roadway widening. Benefits of these improvements are described below.

Many of the recommendations include signal timing improvements. Signal timing improvements are a relatively inexpensive way to make significant improvements on a transportation network. Improved signal timing can decrease delay by appropriately allocating green time among competing phases. This allows more traffic to pass through the signal with less delay. By adjusting cycle lengths and offsets, drivers can travel longer distances along a corridor before having to stop for a red light. This decreases travel time and improves air quality. Both signal timing optimization and traffic signal progression are relatively low cost improvements to make the best use of existing capacity and optimize allocation of funding. The cost for a signal timing improvement project varies depending on the number of traffic signals, the controller capabilities, the location of the traffic signals and adjacent signals, the number of timing plans required, and implementation and fine-tuning needs. Depending on the condition and capabilities of the existing signal equipment, these improvements could range from $4,000 per intersection to over $10,000.

Access management minimizes the number of access points along a given section of roadway. Reducing and combining access points minimize the number of conflict areas along a corridor. Traffic generally slows down to make right and left turns into driveways, and reducing the number of driveways limits the areas where traffic is interrupted by turning movements. In some cases, right and left turn lanes can be provided at combined driveways, and the slow turning movements can be removed from the through lanes.

The Chatham County – Savannah MPC prepared a comprehensive Bikeway Plan in September 2000. The plans developed at that time and upon ultimate implementation will create an extensive network of on-street and off-street paths available for both bikes and pedestrians. As noted in that publication:

"Bikeways and greenways provide opportunities for alternative modes of transportation and therefore can reduce automobile travel. Some traffic congestion problems may be helped by a bikeway / greenway system because more people will find it convenient to cycle or walk to employment centers, commercial districts, transit stations,

institutions, and recreation destinations. Thus a bikeway / greenway system can increase the traffic carrying capacity of the roadway system. As bicycle and pedestrian trips increase, all residents will benefit from reductions in traffic congestion, air pollution, and energy consumption."

Transit route coverage blankets the vast majority of all the arterials evaluated in the CMS. This provides the opportunity for patrons and ease of access to those desiring to use transit. The one element observed regarding transit is the lack of bus bays to remove them from the traffic stream. Far-side bus bays improve the operations of the bus by making it easier to return to the travel lane. In contrast, when stopped at the near-side, it is always a challenge to pull back into the lane due to queued vehicles.

Adding signals may be an improvement at four-way stop intersections or intersections with heavy major street and cross street traffic. This reduces delay for previously stop-controlled movements but may increase delay for movements that were not controlled. As traffic volumes increase, as warranted traffic signals are necessary to efficiently move traffic.

Continuous flow intersections are a unique configuration that is primarily applicable for T-intersections. This design provides a continuous green indication for the primary movement on the side of the "T" that does not have a side street approach. This is accomplished by modifying the median or center of intersection to provide channelization of the side street left turns and directing them into a merge situation with the continuous movement. This is highlighted in **Figure 12**. This should only be applied in those areas where the 4th leg of the intersection will not be added at a later date. This intersection configuration can greatly reduce delays for those intersection uniquely qualified.

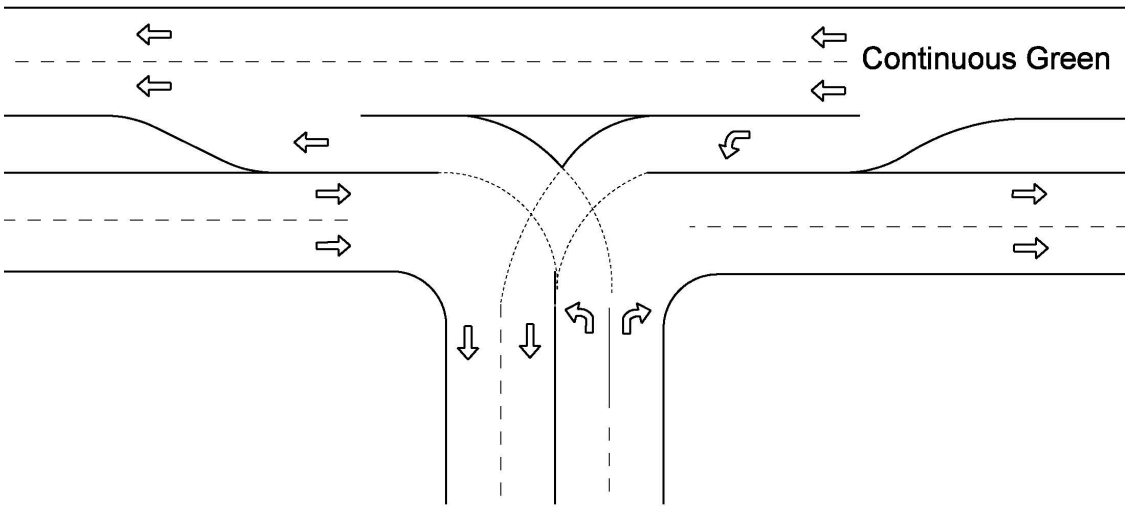


Figure 13 –Continuous Flow Intersection Diagram

Roadway widening is necessary where traffic signal timing and access management are unable to provide enough capacity for heavy traffic volumes. Widening could include adding a through lane for a long section of road, or providing turn lanes at intersections. Adding capacity through roadway widening is generally expensive.

A categorical summary of recommended improvements from the Winter 2003-2004 report are shown in **Figure 13**. As illustrated, the most often recommended improvement was signal timing at 24% aside from those congested segments that fall on roadways that have planned/programmed improvements in the system. **Figure 14** illustrate the recommendations for each segment found to have a LOS of D-F. The segments are color-coded by recommendation category.

The results of the CMS indicate that the majority of the observed areas of congestion are either addressed in "planned projects" or are related to traffic signal operations. The planned projects have been evaluated in model updates to consider their benefits in the future. Traffic signal operations are details that are difficult to reflect in a transportation model. Most models consider the demand and capacity on links between intersections and don't consider details like the quality of the signal operations. Therefore, it is difficult to know for certain how much more life one can have by improving the signal timing. As the area grows and the traffic patterns change, studies similar to this CMS need to occur to monitor the quality of the intersection operations so that the network can be managed and provide maximum life before having to add capacity.

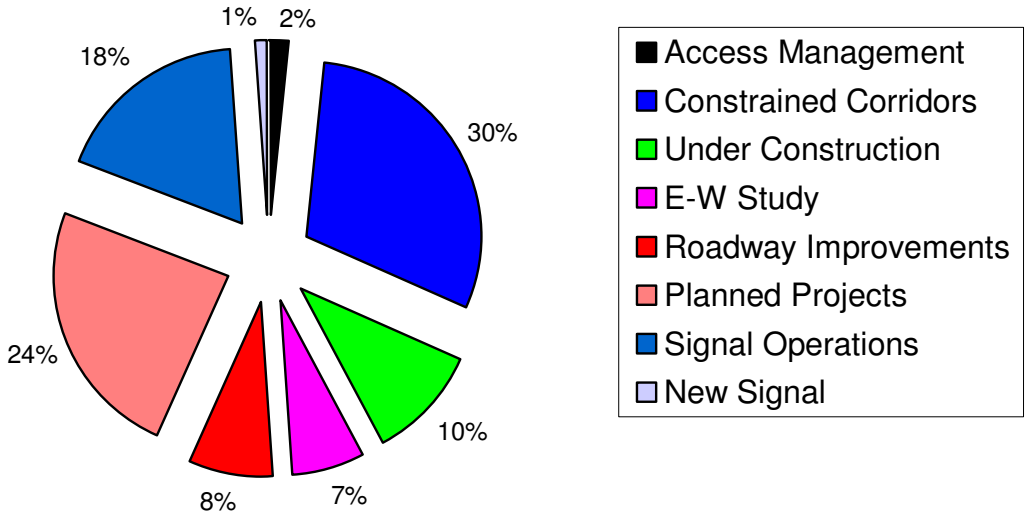


Figure 14 –Breakdown of Winter 2003-2004 Improvement Recommendations

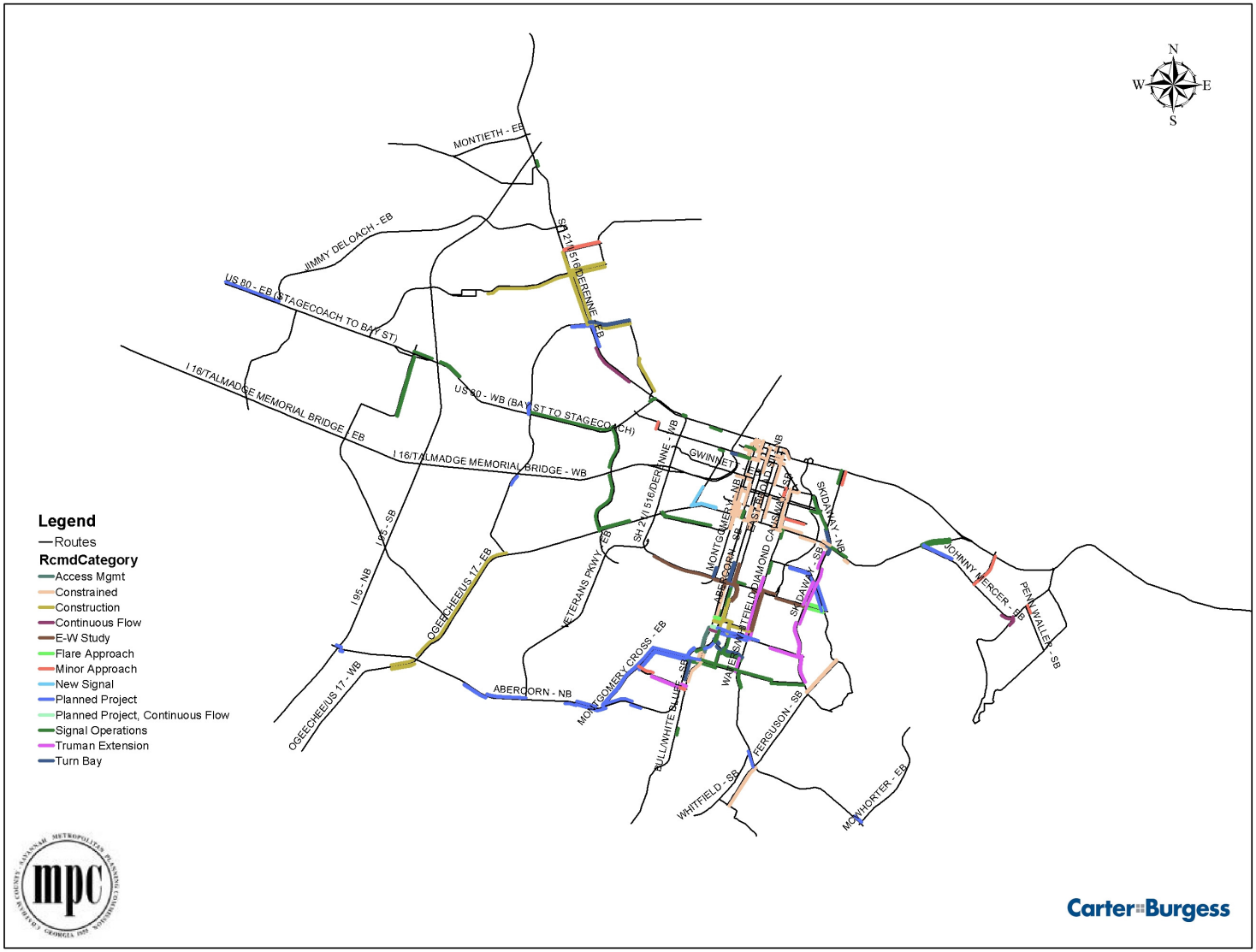


Figure 15 –Breakdown of Winter 2003-2004 Improvement Recommendations by Segment

APPENDIX A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
SHIPYARD - EB	Whitfield to North Drive	5001001	5001	7645.8	AM	28.3	30	0.93	23.6	9.7	Cross Street	B		B
SHIPYARD - EB	Whitfield to North Drive	5001001	5001	7645.8	MD	34.2	30	1.12	0.7	0.0	Cross Street	A		A
SHIPYARD - EB	Whitfield to North Drive	5001001	5001	7645.8	PM	32.2	30	1.06	0.0	0.0	Cross Street	A		A
SHIPYARD - WB	North Drive to Whitfield	5002002	5002	7645.8	AM	33.9	30	1.12	0.0	1.0	Cross Street	A		A
SHIPYARD - WB	North Drive to Whitfield	5002002	5002	7645.8	MD	36.7	30	1.21	0.0	1.2	Cross Street	A		A
SHIPYARD - WB	North Drive to Whitfield	5002002	5002	7645.8	PM	32.9	30	1.08	0.0	0.7	Cross Street	A		A
MONTGOMERY CROSS - EB	Abercorn to Tibet Ave	5003001	5003	7029.6	AM	31.3	35	0.89	16.6	0.6	Signal	B		B
MONTGOMERY CROSS - EB	Abercorn to Tibet Ave	5003001	5003	7029.6	MD	39.7	35	1.14	0.0	0.0	Signal	A		A
MONTGOMERY CROSS - EB	Abercorn to Tibet Ave	5003001	5003	7029.6	PM	29.9	35	0.85	23.8	0.0	Signal	C		C
MONTGOMERY CROSS - EB	Tibet Ave to Abercorn	5003002	5003	8340.3	AM	23.8	35	0.68	85.8	67.0	Signal	F	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn, study approach at Abercorn
MONTGOMERY CROSS - EB	Tibet Ave to Abercorn	5003002	5003	8340.3	MD	25.8	35	0.74	57.7	69.5	Signal	E	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn, study approach at Abercorn
MONTGOMERY CROSS - EB	Tibet Ave to Abercorn	5003002	5003	8340.3	PM	20.9	35	0.60	113.1	89.0	Signal	F	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn, study approach at Abercorn
MONTGOMERY CROSS - EB	Abercorn to White Bluff	5003003	5003	1567.6	AM	14.4	35	0.41	57.7	42.8	Signal	E	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
MONTGOMERY CROSS - EB	Abercorn to White Bluff	5003003	5003	1567.6	MD	17.6	35	0.50	36.3	29.0	Signal	D	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
MONTGOMERY CROSS - EB	Abercorn to White Bluff	5003003	5003	1567.6	PM	11.8	35	0.34	58.6	41.7	Signal	E	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
MONTGOMERY CROSS - EB	White Bluff to Hodgeson Memorial	5003004	5003	2376.4	AM	23.1	35	0.66	36.1	23.3	Signal	D	Signal Timing	Delays along Montgomery between Abercorn and Waters, Coordinate signals
MONTGOMERY CROSS - EB	White Bluff to Hodgeson Memorial	5003004	5003	2376.4	MD	38.7	35	1.11	0.0	0.0	Signal	A		A
MONTGOMERY CROSS - EB	White Bluff to Hodgeson Memorial	5003004	5003	2376.4	PM	21.5	35	0.61	32.7	15.0	Signal	C		C
MONTGOMERY CROSS - EB	Hodgeson Memorial to Waters	5003005	5003	3078.1	AM	33.0	35	0.94	9.2	7.0	Signal	A		A
MONTGOMERY CROSS - EB	Hodgeson Memorial to Waters	5003005	5003	3078.1	MD	31.6	35	0.90	6.4	9.0	Signal	A		A
MONTGOMERY CROSS - EB	Hodgeson Memorial to Waters	5003005	5003	3078.1	PM	29.1	35	0.83	25.7	18.7	Signal	C		C
MONTGOMERY CROSS - EB	Waters to Sallie Mood	5003006	5003	4851.6	AM	34.3	45	0.76	25.3	2.5	Signal	C		C
MONTGOMERY CROSS - EB	Waters to Sallie Mood	5003006	5003	4851.6	MD	45.3	45	1.01	1.0	0.0	Signal	A		A
MONTGOMERY CROSS - EB	Waters to Sallie Mood	5003006	5003	4851.6	PM	34.5	45	0.77	23.5	2.7	Signal	C		C
MONTGOMERY CROSS - EB	Sallie Mood to Skidaway	5003007	5003	4487.2	AM	37.7	45	0.84	18.5	11.0	Signal	B		B
MONTGOMERY CROSS - EB	Sallie Mood to Skidaway	5003007	5003	4487.2	MD	48.4	45	1.08	0.0	0.0	Signal	A		A
MONTGOMERY CROSS - EB	Sallie Mood to Skidaway	5003007	5003	4487.2	PM	24.6	45	0.55	58.0	27.3	Signal	E	T intersection limits capacity	Intersection capacity if limited due to the T configuration, optimize signal operations
MONTGOMERY CROSS - WB	Skidaway to Sallie Mood	5004001	5004	4487.1	AM	39.9	45	0.89	8.9	2.2	Signal	A		A
MONTGOMERY CROSS - WB	Skidaway to Sallie Mood	5004001	5004	4487.1	MD	50.0	45	1.11	0.0	0.0	Signal	A		A
MONTGOMERY CROSS - WB	Skidaway to Sallie Mood	5004001	5004	4487.1	PM	40.3	45	0.90	8.2	0.0	Signal	A		A
MONTGOMERY CROSS - WB	Sallie Mood to Waters	5004002	5004	4851.7	AM	24.1	45	0.53	73.7	37.6	Signal	E	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
MONTGOMERY CROSS - WB	Sallie Mood to Waters	5004002	5004	4851.7	MD	18.1	45	0.40	111.0	94.5	Signal	F	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
MONTGOMERY CROSS - WB	Sallie Mood to Waters	5004002	5004	4851.7	PM	37.1	45	0.82	17.3	2.3	Signal	B		B
MONTGOMERY CROSS - WB	Waters to Hodgeson Memorial	5004003	5004	3078.1	AM	30.5	35	0.87	11.0	5.4	Signal	B		B
MONTGOMERY CROSS - WB	Waters to Hodgeson Memorial	5004003	5004	3078.1	MD	33.6	35	0.96	8.7	10.0	Signal	A		A
MONTGOMERY CROSS - WB	Waters to Hodgeson Memorial	5004003	5004	3078.1	PM	19.1	35	0.55	53.5	38.3	Signal	D	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
MONTGOMERY CROSS - WB	Hodgeson Memorial to White Bluff	5004004	5004	2376.4	AM	26.8	35	0.77	15.9	5.4	Signal	B		B
MONTGOMERY CROSS - WB	Hodgeson Memorial to White Bluff	5004004	5004	2376.4	MD	23.8	35	0.68	30.5	24.5	Signal	C		C
MONTGOMERY CROSS - WB	Hodgeson Memorial to White Bluff	5004004	5004	2376.4	PM	17.5	35	0.50	46.1	32.7	Signal	D	Lack of coordination between Waters and Abercorn	Signal Operations - Coordination between Waters and Abercorn
MONTGOMERY CROSS - WB	White Bluff to Abercorn	5004005	5004	1567.6	AM	14.8	35	0.42	52.7	34.8	Signal	D	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn, study approach at Abercorn
MONTGOMERY CROSS - WB	White Bluff to Abercorn	5004005	5004	1567.6	MD	21.1	35	0.60	29.4	21.0	Signal	C		C
MONTGOMERY CROSS - WB	White Bluff to Abercorn	5004005	5004	1567.6	PM	18.0	35	0.52	29.3	15.7	Signal	C		C
MONTGOMERY CROSS - WB	Abercorn to Tibet Ave	5004006	5004	8340.3	AM	31.8	35	0.91	19.2	1.0	Signal	B		B
MONTGOMERY CROSS - WB	Abercorn to Tibet Ave	5004006	5004	8340.3	MD	37.5	35	1.07	14.3	6.0	Signal	B		B

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
MONTGOMERY CROSS - WB	Abercorn to Tibet Ave	5004006	5004	8340.3	PM	28.6	35	0.82	37.6	7.0	Signal	D	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn
MONTGOMERY CROSS - WB	Tibet Ave to Abercorn	5004007	5004	7029.6	AM	23.3	35	0.67	75.1	47.7	Signal	E	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn
MONTGOMERY CROSS - WB	Tibet Ave to Abercorn	5004007	5004	7029.6	MD	35.7	35	1.02	9.0	17.5	Signal	A		A
MONTGOMERY CROSS - WB	Tibet Ave to Abercorn	5004007	5004	7029.6	PM	25.3	35	0.72	60.8	14.8	Signal	E	Funded Project for construction FY 2004-06 (PRC)	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn
MALL BLVD - EB	Abercorn to Mall Way	5005002	5005	889.8	AM	27.6	40	0.69	6.8	0.8	Signal	A		A
MALL BLVD - EB	Abercorn to Mall Way	5005002	5005	889.8	MD	18.9	40	0.47	25.3	9.5	Signal	C		C
MALL BLVD - EB	Abercorn to Mall Way	5005002	5005	889.8	PM	16.7	40	0.42	26.5	13.7	Signal	C		C
MALL BLVD - EB	Mall Way to Hodgeson Memorial	5005003	5005	871.9	AM	22.9	40	0.57	27.2	16.8	Signal	C		C
MALL BLVD - EB	Mall Way to Hodgeson Memorial	5005003	5005	871.9	MD	15.0	40	0.37	25.4	14.0	Signal	C		C
MALL BLVD - EB	Mall Way to Hodgeson Memorial	5005003	5005	871.9	PM	10.1	40	0.25	48.6	30.7	Signal	D	High Volume of Right turning Mall vehicles	Geometrics - Add right turn bay for existing channelized movement
MALL BLVD - EB	Hodgeson Memorial to Waters	5005004	5005	3116.6	AM	24.2	40	0.60	37.7	22.5	Signal	D	T intersection with Dual left	Delays caused by signal timing, sufficient capacity for all movements
MALL BLVD - EB	Hodgeson Memorial to Waters	5005004	5005	3116.6	MD	21.6	40	0.54	50.0	32.0	Signal	D	T intersection with Dual left	Delays caused by signal timing, sufficient capacity for all movements
MALL BLVD - EB	Hodgeson Memorial to Waters	5005004	5005	3116.6	PM	24.4	40	0.61	35.7	16.7	Signal	D	T intersection with Dual left	Delays caused by signal timing, sufficient capacity for all movements
MALL BLVD - WB	Waters to Hodgeson Memorial	5006002	5006	3116.5	AM	24.4	40	0.61	37.6	21.3	Signal	D	Signal Operations, NB right turn	NB right turn may free up time for Mall Blvd traffic along with optimized timing
MALL BLVD - WB	Waters to Hodgeson Memorial	5006002	5006	3116.5	MD	25.0	40	0.63	41.2	26.5	Signal	D	Signal Operations, NB right turn	NB right turn may free up time for Mall Blvd traffic along with optimized timing
MALL BLVD - WB	Waters to Hodgeson Memorial	5006002	5006	3116.5	PM	31.1	40	0.78	18.4	8.7	Signal	B		B
MALL BLVD - WB	Hodgeson Memorial to Mall Way	5006003	5006	872	AM	29.7	40	0.74	7.1	0.0	Signal	A		A
MALL BLVD - WB	Hodgeson Memorial to Mall Way	5006003	5006	872	MD	24.4	40	0.61	10.6	4.5	Signal	B		B
MALL BLVD - WB	Hodgeson Memorial to Mall Way	5006003	5006	872	PM	19.9	40	0.50	18.4	4.7	Signal	B		B
MALL BLVD - WB	Mall Way to Abercorn	5006004	5006	889.8	AM	9.6	40	0.24	76.1	57.5	Signal	E	Excessive delays back through Mall Way	Consider change in lane use for shared dual left, study addition of NB right turn
MALL BLVD - WB	Mall Way to Abercorn	5006004	5006	889.8	MD	15.9	40	0.40	34.4	22.0	Signal	C		C
MALL BLVD - WB	Mall Way to Abercorn	5006004	5006	889.8	PM	5.0	40	0.12	179.2	138.0	Signal	F	Planned Intersection TIP	Consider change in lane use for shared dual left, study addition of NB right turn
EISENHOWER - EB	White Bluff to Abercorn	5007001	5007	874.6	AM	13.3	40	0.33	28.1	9.0	Signal	C		C
EISENHOWER - EB	White Bluff to Abercorn	5007001	5007	874.6	MD	15.1	40	0.38	43.4	28.0	Signal	D	West Approach will improve with east side widening	Consider SB continuous flow signal
EISENHOWER - EB	White Bluff to Abercorn	5007001	5007	874.6	PM	5.9	40	0.15	84.2	60.8	Signal	F	West Approach will improve with east side widening	PI #0002924 will widen to 4L divided between Abercorn and Truman, Consider SB continuous flow signal
EISENHOWER - EB	Abercorn to Hodgeson Memorial	5007002	5007	1679.8	AM	21.7	40	0.54	25.8	11.5	Signal	C		C
EISENHOWER - EB	Abercorn to Hodgeson Memorial	5007002	5007	1679.8	MD	17.0	40	0.42	44.3	28.8	Signal	D	Delays throughout the corridor to Truman	Priority IC - Operational between Abercorn and Truman widen to include center turn lane, Coordinate timing throughout corridor
EISENHOWER - EB	Abercorn to Hodgeson Memorial	5007002	5007	1679.8	PM	10.5	40	0.26	84.5	57.0	Signal	F	Delays throughout the corridor to Truman	Priority IC - Operational between Abercorn and Truman widen to include center turn lane, Coordinate timing throughout corridor
EISENHOWER - EB	Hodgeson Memorial to Waters	5007003	5007	2707.2	AM	27.0	40	0.68	26.6	13.8	Signal	C		C
EISENHOWER - EB	Hodgeson Memorial to Waters	5007003	5007	2707.2	MD	20.3	40	0.51	57.1	37.8	Signal	E	Delays throughout the corridor to Truman	Priority IC - Operational between Abercorn and Truman widen to include center turn lane, Coordinate timing throughout corridor
EISENHOWER - EB	Hodgeson Memorial to Waters	5007003	5007	2707.2	PM	24.5	40	0.61	33.2	18.3	Signal	C		C
EISENHOWER - EB	Waters to Seawright	5007004	5007	1520.6	AM	35.0	45	0.78	6.7	0.0	Signal	A		A
EISENHOWER - EB	Waters to Seawright	5007004	5007	1520.6	MD	32.1	45	0.71	9.2	0.3	Signal	A		A
EISENHOWER - EB	Waters to Seawright	5007004	5007	1520.6	PM	23.7	45	0.53	21.3	4.7	Signal	C		C
EISENHOWER - EB	Seawright to Sallie Mood	5007005	5007	1834.1	AM	29.6	45	0.66	15.6	6.8	Signal	B		B
EISENHOWER - EB	Seawright to Sallie Mood	5007005	5007	1834.1	MD	39.9	45	0.89	3.5	0.0	Signal	A		A
EISENHOWER - EB	Seawright to Sallie Mood	5007005	5007	1834.1	PM	25.7	45	0.57	25.8	9.7	Signal	C		C
EISENHOWER - EB	Sallie Mood to Skidaway	5007006	5007	4273.3	AM	35.3	45	0.78	19.9	3.5	Signal	B		B
EISENHOWER - EB	Sallie Mood to Skidaway	5007006	5007	4273.3	MD	26.9	45	0.60	46.7	23.7	Signal	D	Corridor will improve with extension of Truman	Study next CMS
EISENHOWER - EB	Sallie Mood to Skidaway	5007006	5007	4273.3	PM	25.8	45	0.57	58.4	35.0	Signal	E	Corridor will improve with extension of Truman	Study next CMS
EISENHOWER - WB	Skidaway to Sallie Mood	5008002	5008	4273.3	AM	33.0	45	0.73	25.8	6.3	Signal	C		C

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
EISENHOWER - WB	Skidaway to Sallie Mood	5008002	5008	4273.3	MD	38.5	45	0.86	11.1	0.7	Signal	B		B
EISENHOWER - WB	Skidaway to Sallie Mood	5008002	5008	4273.3	PM	41.3	45	0.92	5.9	0.0	Signal	A		A
EISENHOWER - WB	Sallie Mood to Seawright	5008003	5008	1834.1	AM	31.8	45	0.71	11.8	2.0	Signal	B		B
EISENHOWER - WB	Sallie Mood to Seawright	5008003	5008	1834.1	MD	36.9	45	0.82	7.2	0.7	Signal	A		A
EISENHOWER - WB	Sallie Mood to Seawright	5008003	5008	1834.1	PM	35.7	45	0.79	9.0	2.7	Signal	A		A
EISENHOWER - WB	Seawright to Waters	5008004	5008	1520.6	AM	15.6	45	0.35	48.0	28.7	Signal	D	Delays throughout the corridor to Truman	Coordinate timing throughout corridor
EISENHOWER - WB	Seawright to Waters	5008004	5008	1520.6	MD	16.6	45	0.37	39.1	22.7	Signal	D	Delays throughout the corridor to Truman	Coordinate timing throughout corridor
EISENHOWER - WB	Seawright to Waters	5008004	5008	1520.6	PM	25.0	45	0.56	33.3	23.0	Signal	C		C
EISENHOWER - WB	Waters to Hodgeson Memorial	5008005	5008	2707.2	AM	28.5	40	0.71	22.7	12.0	Signal	C		C
EISENHOWER - WB	Waters to Hodgeson Memorial	5008005	5008	2707.2	MD	22.5	40	0.56	50.8	31.0	Signal	D	Delays throughout the corridor to Truman	Priority IC - Operational between Abercorn and Truman widen to include center turn lane, Coordinate timing throughout corridor
EISENHOWER - WB	Waters to Hodgeson Memorial	5008005	5008	2707.2	PM	29.5	40	0.74	18.9	9.0	Signal	B		B
EISENHOWER - WB	Hodgeson Memorial to Abercorn	5008006	5008	1679.8	AM	24.8	40	0.62	19.4	3.7	Signal	B		B
EISENHOWER - WB	Hodgeson Memorial to Abercorn	5008006	5008	1679.8	MD	22.7	40	0.57	40.2	26.3	Signal	D	Delays throughout the corridor to Truman	Priority IC - Operational between Abercorn and Truman widen to include center turn lane, Coordinate timing throughout corridor
EISENHOWER - WB	Hodgeson Memorial to Abercorn	5008006	5008	1679.8	PM	14.1	40	0.35	60.8	38.0	Signal	E	Delays throughout the corridor to Truman	Priority IC - Operational between Abercorn and Truman widen to include center turn lane, Coordinate timing throughout corridor
EISENHOWER - WB	Abercorn to White Bluff	5008007	5008	874.6	AM	5.2	40	0.13	99.9	79.0	Signal	F	West Approach will improve with east side widening	PI #0002924 will widen to 4L divided between Abercorn and Truman, Consider SB continuous flow signal
EISENHOWER - WB	Abercorn to White Bluff	5008007	5008	874.6	MD	9.6	40	0.24	46.9	32.5	Signal	D	West Approach will improve with east side widening	PI #0002924 will widen to 4L divided between Abercorn and Truman, Consider SB continuous flow signal
EISENHOWER - WB	Abercorn to White Bluff	5008007	5008	874.6	PM	7.6	40	0.19	73.5	55.4	Signal	E	West Approach will improve with east side widening	PI #0002924 will widen to 4L divided between Abercorn and Truman, Consider SB continuous flow signal
52ND ST/MILLS - EB	Victory to Liberty	5009002	5009	1108.1	AM	22.3	40	0.56	14.9	0.0	Signal	B		B
52ND ST/MILLS - EB	Victory to Liberty	5009002	5009	1108.1	MD	15.3	40	0.38	32.0	5.5	Signal	C		C
52ND ST/MILLS - EB	Victory to Liberty	5009002	5009	1108.1	PM	17.6	40	0.44	23.9	1.0	Signal	C		C
52ND ST/MILLS - EB	Liberty to Hopkins	5009003	5009	6113.7	AM	34.6	43	0.80	24.6	5.7	Signal	C		C
52ND ST/MILLS - EB	Liberty to Hopkins	5009003	5009	6113.7	MD	37.3	43	0.86	16.3	0.0	Signal	B		B
52ND ST/MILLS - EB	Liberty to Hopkins	5009003	5009	6113.7	PM	37.5	43	0.87	17.5	3.0	Signal	B		B
52ND ST/MILLS - EB	Hopkins to Montgomery	5009004	5009	2742.1	AM	28.5	40	0.71	19.0	0.0	Signal	B		B
52ND ST/MILLS - EB	Hopkins to Montgomery	5009004	5009	2742.1	MD	30.7	40	0.77	14.5	0.0	Signal	B		B
52ND ST/MILLS - EB	Hopkins to Montgomery	5009004	5009	2742.1	PM	32.8	40	0.82	10.2	0.0	Signal	B		B
52ND ST/MILLS - WB	Montgomery to Hopkins	5010002	5010	2742.1	AM	25.7	40	0.64	26.5	12.0	Signal	C		C
52ND ST/MILLS - WB	Montgomery to Hopkins	5010002	5010	2742.1	MD	26.9	40	0.67	22.3	3.5	Signal	C		C
52ND ST/MILLS - WB	Montgomery to Hopkins	5010002	5010	2742.1	PM	30.7	40	0.77	15.4	0.0	Signal	B		B
52ND ST/MILLS - WB	Hopkins to Liberty	5010003	5010	6113.7	AM	32.2	43	0.75	33.3	8.0	Signal	C		C
52ND ST/MILLS - WB	Hopkins to Liberty	5010003	5010	6113.7	MD	35.2	43	0.82	22.0	0.0	Signal	C		C
52ND ST/MILLS - WB	Hopkins to Liberty	5010003	5010	6113.7	PM	30.9	43	0.72	43.6	14.8	Signal	D	Delays between Hopkins and Victory -1 lane approach and short distance between Liberty and Victory	Signal Operations - Coordination between Hopkins and Victory
52ND ST/MILLS - WB	Liberty to Victory	5010004	5010	1108	AM	12.7	40	0.32	43.2	20.3	Signal	D	Preference given to Ogeechee traffic	Signal Operations - Coordination between Liberty and Ogeechee for minimum system delay
52ND ST/MILLS - WB	Liberty to Victory	5010004	5010	1108	MD	21.9	40	0.55	15.2	0.0	Signal	B		B
52ND ST/MILLS - WB	Liberty to Victory	5010004	5010	1108	PM	8.6	40	0.22	68.1	42.8	Signal	E	Preference given to Ogeechee traffic	Signal Operations - Coordination between Liberty and Ogeechee for minimum system delay
OGEECHEE/US 17 - EB	Chatham County Line to Chevis	5011002	5011	12142	AM	40.9	52	0.78	49.5	11.3	Cross Street	B		B
OGEECHEE/US 17 - EB	Chatham County Line to Chevis	5011002	5011	12142	MD	50.4	52	0.96	8.6	0.0	Cross Street	A		A
OGEECHEE/US 17 - EB	Chatham County Line to Chevis	5011002	5011	12142	PM	49.1	52	0.94	11.2	0.0	Cross Street	A		A
OGEECHEE/US 17 - EB	Chevis to SH 204 EB Ramp	5011003	5011	3154.4	AM	25.6	45	0.57	37.4	15.8	Signal	D	Currently under construction	Study next CMS
OGEECHEE/US 17 - EB	Chevis to SH 204 EB Ramp	5011003	5011	3154.4	MD	38.8	45	0.86	8.5	1.3	Signal	A		A
OGEECHEE/US 17 - EB	Chevis to SH 204 EB Ramp	5011003	5011	3154.4	PM	22.8	45	0.51	51.9	29.4	Signal	D	Currently under construction	Study next CMS
OGEECHEE/US 17 - EB	SH 204 EB Ramp to SH 204 WB Ramp	5011004	5011	971.7	AM	41.3	45	0.92	2.1	0.0	Signal	A		A
OGEECHEE/US 17 - EB	SH 204 EB Ramp to SH 204 WB Ramp	5011004	5011	971.7	MD	13.8	45	0.31	34.1	21.0	Signal	C		C

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
OGEECHEE/US 17 - EB	SH 204 EB Ramp to SH 204 WB Ramp	5011004	5011	971.7	PM	34.6	45	0.77	4.5	0.0	Signal	A		A
OGEECHEE/US 17 - EB	SH 204 WB Ramp to Quacco	5011005	5011	6651.8	AM	45.6	40	1.13	4.4	1.8	Signal	A		A
OGEECHEE/US 17 - EB	SH 204 WB Ramp to Quacco	5011005	5011	6651.8	MD	42.6	40	1.05	4.8	0.0	Signal	A		A
OGEECHEE/US 17 - EB	SH 204 WB Ramp to Quacco	5011005	5011	6651.8	PM	41.1	40	1.02	4.8	0.0	Signal	A		A
OGEECHEE/US 17 - EB	Quacco to Garden City City Limit	5011006	5011	12561.7	AM	45.4	45	1.01	10.5	0.0	Signal	B		B
OGEECHEE/US 17 - EB	Quacco to Garden City City Limit	5011006	5011	12561.7	MD	43.4	45	0.96	9.1	0.0	Signal	A		A
OGEECHEE/US 17 - EB	Quacco to Garden City City Limit	5011006	5011	12561.7	PM	41.8	45	0.93	15.6	0.4	Signal	B		B
OGEECHEE/US 17 - EB	Garden City City Limit to Buckholter	5011007	5011	7593.5	AM	51.4	44	1.18	0.5	0.0	Cross Street	A		A
OGEECHEE/US 17 - EB	Garden City City Limit to Buckholter	5011007	5011	7593.5	MD	45.7	44	1.05	0.0	0.0	Cross Street	A		A
OGEECHEE/US 17 - EB	Garden City City Limit to Buckholter	5011007	5011	7593.5	PM	47.3	44	1.09	0.3	0.0	Cross Street	A		A
OGEECHEE/US 17 - EB	Buckholter to Chatham Pkwy	5011008	5011	5927.5	AM	50.8	45	1.13	2.3	0.0	Signal	A		A
OGEECHEE/US 17 - EB	Buckholter to Chatham Pkwy	5011008	5011	5927.5	MD	47.2	45	1.05	10.4	9.0	Signal	B		B
OGEECHEE/US 17 - EB	Buckholter to Chatham Pkwy	5011008	5011	5927.5	PM	36.4	45	0.81	28.1	18.8	Signal	C		C
OGEECHEE/US 17 - EB	Chatham Pkwy to Gamble	5011009	5011	4079.5	AM	48.9	45	1.09	0.7	0.0	Signal	A		A
OGEECHEE/US 17 - EB	Chatham Pkwy to Gamble	5011009	5011	4079.5	MD	40.4	45	0.90	11.2	3.3	Signal	B		B
OGEECHEE/US 17 - EB	Chatham Pkwy to Gamble	5011009	5011	4079.5	PM	39.8	45	0.88	14.0	8.6	Signal	B		B
OGEECHEE/US 17 - EB	Gamble to I-516 EB Ramp	5011010	5011	3305.2	AM	35.2	45	0.78	14.3	7.8	Signal	B		B
OGEECHEE/US 17 - EB	Gamble to I-516 EB Ramp	5011010	5011	3305.2	MD	45.3	45	1.01	5.4	0.0	Signal	A		A
OGEECHEE/US 17 - EB	Gamble to I-516 EB Ramp	5011010	5011	3305.2	PM	36.8	45	0.82	11.7	2.1	Signal	B		B
OGEECHEE/US 17 - EB	I-516 EB Ramp to I-516 WB Ramp	5011011	5011	566.3	AM	21.9	45	0.49	12.7	5.3	Signal	B		B
OGEECHEE/US 17 - EB	I-516 EB Ramp to I-516 WB Ramp	5011011	5011	566.3	MD	44.0	45	0.98	1.7	0.0	Signal	A		A
OGEECHEE/US 17 - EB	I-516 EB Ramp to I-516 WB Ramp	5011011	5011	566.3	PM	31.1	45	0.69	5.6	0.0	Signal	A		A
OGEECHEE/US 17 - WB	I-516 WB Ramp to I-516 EB Ramp	5012001	5012	566.3	AM	38.5	45	0.86	1.7	0.0	Signal	A		A
OGEECHEE/US 17 - WB	I-516 WB Ramp to I-516 EB Ramp	5012001	5012	566.3	MD	45.8	45	1.02	0.0	0.0	Signal	A		A
OGEECHEE/US 17 - WB	I-516 WB Ramp to I-516 EB Ramp	5012001	5012	566.3	PM	19.6	45	0.44	15.4	7.8	Signal	B		B
OGEECHEE/US 17 - WB	I-516 EB Ramp to Gamble	5012002	5012	3305.2	AM	47.2	45	1.05	1.0	0.0	Signal	A		A
OGEECHEE/US 17 - WB	I-516 EB Ramp to Gamble	5012002	5012	3305.2	MD	39.6	45	0.88	7.3	3.0	Signal	A		A
OGEECHEE/US 17 - WB	I-516 EB Ramp to Gamble	5012002	5012	3305.2	PM	38.9	45	0.86	8.5	0.0	Signal	A		A
OGEECHEE/US 17 - WB	Gamble to Chatham Pkwy	5012003	5012	4079.5	AM	34.8	45	0.77	20.4	16.7	Signal	C		C
OGEECHEE/US 17 - WB	Gamble to Chatham Pkwy	5012003	5012	4079.5	MD	27.5	45	0.61	47.9	40.0	Signal	D	Study further for WB and SB right turn bays	Signal Operations - sufficient roadway capacity, excessive intersection delay
OGEECHEE/US 17 - WB	Gamble to Chatham Pkwy	5012003	5012	4079.5	PM	26.2	45	0.58	54.7	39.8	Signal	D	Study further for WB and SB right turn bays	Signal Operations - sufficient roadway capacity, excessive intersection delay
OGEECHEE/US 17 - WB	Chatham Pkwy to Buckholter	5012004	5012	5927.5	AM	41.0	45	0.91	9.8	0.0	Signal	A		A
OGEECHEE/US 17 - WB	Chatham Pkwy to Buckholter	5012004	5012	5927.5	MD	48.4	45	1.08	0.9	0.0	Signal	A		A
OGEECHEE/US 17 - WB	Chatham Pkwy to Buckholter	5012004	5012	5927.5	PM	39.5	45	0.88	14.2	7.0	Signal	B		B
OGEECHEE/US 17 - WB	Buckholter to Garden City City Limit	5012005	5012	7593.4	AM	49.6	44	1.14	0.0	0.0	Signal	A		A
OGEECHEE/US 17 - WB	Buckholter to Garden City City Limit	5012005	5012	7593.4	MD	52.1	44	1.20	0.0	0.0	Signal	A		A
OGEECHEE/US 17 - WB	Buckholter to Garden City City Limit	5012005	5012	7593.4	PM	46.6	44	1.07	0.0	0.0	Signal	A		A
OGEECHEE/US 17 - WB	Garden City City Limit to Quacco	5012006	5012	12561.7	AM	36.1	45	0.80	48.3	21.3	Cross Street	B		B
OGEECHEE/US 17 - WB	Garden City City Limit to Quacco	5012006	5012	12561.7	MD	38.2	45	0.85	35.2	20.0	Cross Street	B		B
OGEECHEE/US 17 - WB	Garden City City Limit to Quacco	5012006	5012	12561.7	PM	20.0	45	0.44	324.8	85.5	Cross Street	E	Currently under construction	Study next CMS

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
OGEECHEE/US 17 - WB	Quacco to SH 204 WB Ramp	5012007	5012	6651.9	AM	36.3	40	0.90	15.0	13.3	Signal	B		B
OGEECHEE/US 17 - WB	Quacco to SH 204 WB Ramp	5012007	5012	6651.9	MD	31.4	40	0.78	32.0	15.5	Signal	C		C
OGEECHEE/US 17 - WB	Quacco to SH 204 WB Ramp	5012007	5012	6651.9	PM	19.0	40	0.47	138.7	53.0	Signal	F	Currently under construction	Study next CMS
OGEECHEE/US 17 - WB	SH 204 WB Ramp to SH 204 EB Ramp	5012008	5012	971.7	AM	36.5	45	0.81	4.5	0.0	Signal	A		A
OGEECHEE/US 17 - WB	SH 204 WB Ramp to SH 204 EB Ramp	5012008	5012	971.7	MD	20.5	45	0.46	21.0	4.7	Signal	C		C
OGEECHEE/US 17 - WB	SH 204 WB Ramp to SH 204 EB Ramp	5012008	5012	971.7	PM	20.4	45	0.45	18.6	0.0	Signal	B		B
OGEECHEE/US 17 - WB	SH 204 EB Ramp to Chevis	5012009	5012	3154.4	AM	40.5	45	0.90	5.6	0.0	Signal	A		A
OGEECHEE/US 17 - WB	SH 204 EB Ramp to Chevis	5012009	5012	3154.4	MD	33.3	45	0.74	16.5	0.0	Signal	B		B
OGEECHEE/US 17 - WB	SH 204 EB Ramp to Chevis	5012009	5012	3154.4	PM	20.4	45	0.45	75.1	21.0	Signal	E	Currently under construction	Study next CMS
OGEECHEE/US 17 - WB	Chevis to Chatham County Line	5012010	5012	12142	AM	44.6	52	0.85	28.8	0.0	Signal	C		C
OGEECHEE/US 17 - WB	Chevis to Chatham County Line	5012010	5012	12142	MD	46.0	52	0.88	21.7	0.0	Signal	C		C
OGEECHEE/US 17 - WB	Chevis to Chatham County Line	5012010	5012	12142	PM	47.1	52	0.90	18.1	0.0	Signal	B		B
37TH ST - EB	37th St Connector to MLK	5013002	5013	1606.8	AM	30.4	33	0.91	3.3	0.0	Signal	A		A
37TH ST - EB	37th St Connector to MLK	5013002	5013	1606.8	MD	34.5	35	0.99	0.9	0.0	Signal	A		A
37TH ST - EB	37th St Connector to MLK	5013002	5013	1606.8	PM	21.6	35	0.62	25.2	12.0	Signal	C		C
37TH ST - EB	MLK to Montgomery	5013003	5013	350.4	AM	32.7	35	0.93	0.7	0.0	Signal	A		A
37TH ST - EB	MLK to Montgomery	5013003	5013	350.4	MD	37.9	35	1.08	0.3	0.0	Signal	A		A
37TH ST - EB	MLK to Montgomery	5013003	5013	350.4	PM	17.1	35	0.49	19.2	11.5	Signal	B		B
37TH ST - EB	Montgomery to Barnard	5013004	5013	671.8	AM	33.3	35	0.95	1.6	0.0	Signal	A		A
37TH ST - EB	Montgomery to Barnard	5013004	5013	671.8	MD	39.5	35	1.13	0.0	0.0	Signal	A		A
37TH ST - EB	Montgomery to Barnard	5013004	5013	671.8	PM	30.4	35	0.87	2.5	0.0	Signal	A		A
37TH ST - EB	Barnard to Whitaker	5013005	5013	350.3	AM	29.9	35	0.85	1.4	0.0	Signal	A		A
37TH ST - EB	Barnard to Whitaker	5013005	5013	350.3	MD	38.3	35	1.09	0.0	0.0	Signal	A		A
37TH ST - EB	Barnard to Whitaker	5013005	5013	350.3	PM	29.2	35	0.84	1.2	0.0	Signal	A		A
37TH ST - EB	Whitaker to Bull	5013006	5013	326.9	AM	28.5	35	0.81	1.5	0.0	Signal	A		A
37TH ST - EB	Whitaker to Bull	5013006	5013	326.9	MD	38.5	35	1.10	0.9	0.0	Signal	A		A
37TH ST - EB	Whitaker to Bull	5013006	5013	326.9	PM	32.4	35	0.92	0.7	0.0	Signal	A		A
37TH ST - EB	Bull to Drayton	5013007	5013	409	AM	34.9	35	1.00	0.1	0.0	Signal	A		A
37TH ST - EB	Bull to Drayton	5013007	5013	409	MD	31.6	35	0.90	1.2	0.0	Signal	A		A
37TH ST - EB	Bull to Drayton	5013007	5013	409	PM	30.7	35	0.88	1.4	0.0	Signal	A		A
37TH ST - EB	Drayton to Abercorn	5013008	5013	368.4	AM	35.9	35	1.02	0.1	0.0	Signal	A		A
37TH ST - EB	Drayton to Abercorn	5013008	5013	368.4	MD	26.5	35	0.76	1.9	0.0	Signal	A		A
37TH ST - EB	Drayton to Abercorn	5013008	5013	368.4	PM	23.9	35	0.68	2.9	12.0	Signal	A		A
37TH ST - EB	Abercorn to Habersham	5013009	5013	695.1	AM	28.4	35	0.81	4.1	0.0	Signal	A		A
37TH ST - EB	Abercorn to Habersham	5013009	5013	695.1	MD	28.4	35	0.81	2.5	0.0	Signal	A		A
37TH ST - EB	Abercorn to Habersham	5013009	5013	695.1	PM	25.9	35	0.74	5.2	0.0	Signal	A		A
37TH ST - EB	Habersham to Price	5013010	5013	314.4	AM	27.5	35	0.79	1.4	0.0	Signal	A		A
37TH ST - EB	Habersham to Price	5013010	5013	314.4	MD	15.2	35	0.44	23.6	17.5	Signal	C		C
37TH ST - EB	Habersham to Price	5013010	5013	314.4	PM	23.2	35	0.66	2.3	0.0	Signal	A		A
37TH ST - EB	Price to Atlantic	5013011	5013	1593.6	AM	25.3	35	0.72	17.9	10.3	Signal	B		B
37TH ST - EB	Price to Atlantic	5013011	5013	1593.6	MD	26.9	35	0.77	10.2	0.0	Signal	B		B
37TH ST - EB	Price to Atlantic	5013011	5013	1593.6	PM	28.2	35	0.81	7.4	0.0	Signal	A		A
37TH ST - EB	Atlantic to Paulsen	5013012	5013	735.8	AM	26.1	35	0.74	6.1	2.8	Signal	A		A
37TH ST - EB	Atlantic to Paulsen	5013012	5013	735.8	MD	34.9	35	1.00	0.5	0.0	Signal	A		A
37TH ST - EB	Atlantic to Paulsen	5013012	5013	735.8	PM	21.6	35	0.62	9.6	2.8	Signal	A		A
37TH ST - EB	Paulsen to Harmon	5013013	5013	505.4	AM	26.6	35	0.76	3.1	0.0	Signal	A		A
37TH ST - EB	Paulsen to Harmon	5013013	5013	505.4	MD	34.8	35	0.99	0.3	0.0	Signal	A		A
37TH ST - EB	Paulsen to Harmon	5013013	5013	505.4	PM	27.0	35	0.77	3.1	1.8	Signal	A		A
37TH ST - EB	Harmon to Waters	5013014	5013	759.3	AM	19.1	35	0.55	13.6	4.5	Signal	B		B
37TH ST - EB	Harmon to Waters	5013014	5013	759.3	MD	17.7	35	0.51	14.4	8.5	Signal	B		B
37TH ST - EB	Harmon to Waters	5013014	5013	759.3	PM	23.0	35	0.66	8.1	5.3	Signal	A		A
37TH ST - EB	Waters to Bee Rd	5013015	5013	2817.4	AM	20.4	35	0.58	44.5	19.5	Signal	D	Secondary street on fringe of urban core	This is the end of route with a Stop sign, delays acceptable on fringe in this case
37TH ST - EB	Waters to Bee Rd	5013015	5013	2817.4	MD	26.2	35	0.75	19.0	1.0	Signal	B		B
37TH ST - EB	Waters to Bee Rd	5013015	5013	2817.4	PM	25.1	35	0.72	21.5	4.8	Signal	C		C
37TH ST - WB	Bee Rd to Waters	5014002	5014	2817.4	AM	28.7	35	0.82	11.9	0.0	TWSC	B		B
37TH ST - WB	Bee Rd to Waters	5014002	5014	2817.4	MD	29.0	35	0.83	12.5	3.5	TWSC	B		B
37TH ST - WB	Bee Rd to Waters	5014002	5014	2817.4	PM	25.4	35	0.72	22.0	4.3	TWSC	C		C
37TH ST - WB	Waters to Harmon	5014003	5014	759.3	AM	27.1	35	0.78	4.7	0.0	Signal	A		A
37TH ST - WB	Waters to Harmon	5014003	5014	759.3	MD	27.3	35	0.78	8.3	4.0	Signal	A		A
37TH ST - WB	Waters to Harmon	5014003	5014	759.3	PM	22.8	35	0.65	9.4	1.8	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
37TH ST - WB	Harmon to Paulsen	5014004	5014	505.5	AM	26.1	35	0.75	2.8	0.0	Signal	A		A
37TH ST - WB	Harmon to Paulsen	5014004	5014	505.5	MD	35.0	35	1.00	1.5	0.0	Signal	A		A
37TH ST - WB	Harmon to Paulsen	5014004	5014	505.5	PM	19.9	35	0.57	11.7	6.0	Signal	B		B
37TH ST - WB	Paulsen to Atlantic	5014005	5014	735.7	AM	28.7	35	0.82	3.7	0.0	Signal	A		A
37TH ST - WB	Paulsen to Atlantic	5014005	5014	735.7	MD	37.3	35	1.07	1.4	0.0	Signal	A		A
37TH ST - WB	Paulsen to Atlantic	5014005	5014	735.7	PM	29.6	35	0.84	3.5	0.0	Signal	A		A
37TH ST - WB	Atlantic to Price	5014006	5014	1593.7	AM	22.5	35	0.64	19.8	8.3	Signal	B		B
37TH ST - WB	Atlantic to Price	5014006	5014	1593.7	MD	18.8	35	0.54	26.0	8.0	Signal	C		C
37TH ST - WB	Atlantic to Price	5014006	5014	1593.7	PM	19.5	35	0.56	25.7	17.0	Signal	C		C
37TH ST - WB	Price to Habersham	5014007	5014	314.3	AM	24.1	35	0.69	2.8	0.0	Signal	A		A
37TH ST - WB	Price to Habersham	5014007	5014	314.3	MD	13.5	35	0.39	25.1	16.5	Signal	C		C
37TH ST - WB	Price to Habersham	5014007	5014	314.3	PM	20.1	35	0.58	4.3	0.0	Signal	A		A
37TH ST - WB	Habersham to Abercorn	5014008	5014	695.2	AM	18.0	35	0.51	27.9	16.0	Signal	C		C
37TH ST - WB	Habersham to Abercorn	5014008	5014	695.2	MD	14.2	35	0.41	26.9	17.3	Signal	C		C
37TH ST - WB	Habersham to Abercorn	5014008	5014	695.2	PM	15.0	35	0.43	27.5	22.0	Signal	C		C
37TH ST - WB	Abercorn to Drayton	5014009	5014	368.3	AM	31.7	35	0.91	0.9	0.0	Signal	A		A
37TH ST - WB	Abercorn to Drayton	5014009	5014	368.3	MD	25.3	35	0.72	2.8	0.0	Signal	A		A
37TH ST - WB	Abercorn to Drayton	5014009	5014	368.3	PM	23.7	35	0.68	3.2	0.0	Signal	A		A
37TH ST - WB	Drayton to Bull	5014010	5014	409	AM	35.7	35	1.02	0.6	0.0	Signal	A		A
37TH ST - WB	Drayton to Bull	5014010	5014	409	MD	33.0	35	0.94	1.2	0.0	Signal	A		A
37TH ST - WB	Drayton to Bull	5014010	5014	409	PM	23.9	35	0.68	4.6	0.5	Signal	A		A
37TH ST - WB	Bull to Whitaker	5014011	5014	327	AM	36.4	35	1.04	0.6	0.0	Signal	A		A
37TH ST - WB	Bull to Whitaker	5014011	5014	327	MD	33.7	35	0.96	0.2	0.0	Signal	A		A
37TH ST - WB	Bull to Whitaker	5014011	5014	327	PM	29.5	35	0.84	0.9	8.8	Signal	A		A
37TH ST - WB	Whitaker to Barnard	5014012	5014	350.3	AM	15.3	35	0.44	21.3	15.7	Signal	C		C
37TH ST - WB	Whitaker to Barnard	5014012	5014	350.3	MD	21.3	35	0.61	13.6	10.5	Signal	B		B
37TH ST - WB	Whitaker to Barnard	5014012	5014	350.3	PM	28.8	35	0.82	1.6	0.0	Signal	A		A
37TH ST - WB	Barnard to Montgomery	5014013	5014	671.8	AM	32.0	35	0.91	1.7	0.0	Signal	A		A
37TH ST - WB	Barnard to Montgomery	5014013	5014	671.8	MD	31.9	35	0.91	2.1	0.0	Signal	A		A
37TH ST - WB	Barnard to Montgomery	5014013	5014	671.8	PM	13.8	35	0.39	31.1	19.8	Signal	C		C
37TH ST - WB	Montgomery to MLK	5014014	5014	350.3	AM	32.5	35	0.93	1.4	0.0	Signal	A		A
37TH ST - WB	Montgomery to MLK	5014014	5014	350.3	MD	26.4	35	0.75	1.9	0.0	Signal	A		A
37TH ST - WB	Montgomery to MLK	5014014	5014	350.3	PM	23.2	35	0.66	3.2	0.0	Signal	A		A
37TH ST - WB	MLK to 37th St Connector	5014015	5014	1606.8	AM	35.8	35	1.02	1.3	0.0	Signal	A		A
37TH ST - WB	MLK to 37th St Connector	5014015	5014	1606.8	MD	31.0	35	0.89	3.9	0.0	Signal	A		A
37TH ST - WB	MLK to 37th St Connector	5014015	5014	1606.8	PM	26.6	35	0.76	9.7	1.0	Signal	A		A
ANDERSON - EB	MLK to Montgomery	5015002	5015	362.9	AM	18.8	30	0.63	8.2	4.2	Signal	A		A
ANDERSON - EB	MLK to Montgomery	5015002	5015	362.9	MD	16.7	30	0.56	17.3	12.5	Signal	B		B
ANDERSON - EB	MLK to Montgomery	5015002	5015	362.9	PM	14.7	30	0.49	16.3	10.0	Signal	B		B
ANDERSON - EB	Montgomery to Jefferson	5015003	5015	299.9	AM	26.9	30	0.90	0.9	0.0	Signal	A		A
ANDERSON - EB	Montgomery to Jefferson	5015003	5015	299.9	MD	27.2	30	0.91	1.1	0.0	Signal	A		A
ANDERSON - EB	Montgomery to Jefferson	5015003	5015	299.9	PM	25.7	30	0.86	0.7	0.0	Signal	A		A
ANDERSON - EB	Jefferson to Barnard	5015004	5015	369.4	AM	16.4	30	0.55	9.2	3.6	Flashing Yellow	C		C
ANDERSON - EB	Jefferson to Barnard	5015004	5015	369.4	MD	12.5	30	0.42	11.3	4.0	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
ANDERSON - EB	Jefferson to Barnard	5015004	5015	369.4	PM	13.1	30	0.44	11.6	3.6	Flashing Yellow	C		C
ANDERSON - EB	Barnard to Whitaker	5015005	5015	373.4	AM	21.1	30	0.70	4.2	0.2	Signal	A		A
ANDERSON - EB	Barnard to Whitaker	5015005	5015	373.4	MD	19.6	30	0.65	3.9	0.0	Signal	A		A
ANDERSON - EB	Barnard to Whitaker	5015005	5015	373.4	PM	18.1	30	0.60	6.1	0.0	Signal	A		A
ANDERSON - EB	Whitaker to Drayton	5015006	5015	712.9	AM	14.5	30	0.48	17.5	7.8	Signal	B		B
ANDERSON - EB	Whitaker to Drayton	5015006	5015	712.9	MD	13.2	30	0.44	20.8	13.5	Signal	C		C
ANDERSON - EB	Whitaker to Drayton	5015006	5015	712.9	PM	12.3	30	0.41	23.3	6.2	Signal	C		C
ANDERSON - EB	Drayton to Abercorn	5015007	5015	346.4	AM	27.4	30	0.91	0.5	0.0	Signal	A		A
ANDERSON - EB	Drayton to Abercorn	5015007	5015	346.4	MD	29.5	30	0.98	0.5	0.0	Signal	A		A
ANDERSON - EB	Drayton to Abercorn	5015007	5015	346.4	PM	21.2	30	0.71	4.0	0.0	Signal	A		A
ANDERSON - EB	Abercorn to Lincoln	5015008	5015	364.2	AM	29.6	30	0.99	0.4	0.0	Signal	A		A
ANDERSON - EB	Abercorn to Lincoln	5015008	5015	364.2	MD	32.1	30	1.07	0.2	0.0	Signal	A		A
ANDERSON - EB	Abercorn to Lincoln	5015008	5015	364.2	PM	25.9	30	0.86	1.4	0.0	Signal	A		A
ANDERSON - EB	Lincoln to Habersham	5015009	5015	336.1	AM	27.2	30	0.91	1.2	0.0	Flashing Yellow	A		A
ANDERSON - EB	Lincoln to Habersham	5015009	5015	336.1	MD	20.8	30	0.69	3.4	0.0	Flashing Yellow	B		B
ANDERSON - EB	Lincoln to Habersham	5015009	5015	336.1	PM	23.5	30	0.78	2.2	0.0	Flashing Yellow	B		B
ANDERSON - EB	Habersham to Price	5015010	5015	292.9	AM	26.7	30	0.89	1.1	0.0	Signal	A		A
ANDERSON - EB	Habersham to Price	5015010	5015	292.9	MD	29.7	30	0.99	0.4	0.0	Signal	A		A
ANDERSON - EB	Habersham to Price	5015010	5015	292.9	PM	26.0	30	0.87	0.4	0.0	Signal	A		A
ANDERSON - EB	Price to East Broad St	5015011	5015	644.8	AM	30.8	30	1.03	0.9	0.0	Signal	A		A
ANDERSON - EB	Price to East Broad St	5015011	5015	644.8	MD	36.7	30	1.22	0.0	0.0	Signal	A		A
ANDERSON - EB	Price to East Broad St	5015011	5015	644.8	PM	27.4	30	0.91	1.9	0.0	Signal	A		A
ANDERSON - EB	East Broad St to Atlantic	5015012	5015	976.9	AM	29.0	28	1.02	1.1	0.0	Signal	A		A
ANDERSON - EB	East Broad St to Atlantic	5015012	5015	976.9	MD	34.6	30	1.15	0.0	0.0	Signal	A		A
ANDERSON - EB	East Broad St to Atlantic	5015012	5015	976.9	PM	24.7	30	0.82	4.9	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ANDERSON - EB	Atlantic to Harmon	5015013	5015	1230.1	AM	34.7	35	0.99	1.0	0.0	Signal	A		A
ANDERSON - EB	Atlantic to Harmon	5015013	5015	1230.1	MD	38.1	35	1.09	0.0	0.0	Signal	A		A
ANDERSON - EB	Atlantic to Harmon	5015013	5015	1230.1	PM	31.2	35	0.89	3.0	0.0	Signal	A		A
ANDERSON - EB	Harmon to Waters	5015014	5015	745.1	AM	29.0	35	0.83	3.9	0.4	Signal	A		A
ANDERSON - EB	Harmon to Waters	5015014	5015	745.1	MD	24.7	35	0.71	6.8	1.5	Signal	A		A
ANDERSON - EB	Harmon to Waters	5015014	5015	745.1	PM	32.0	35	0.91	2.4	0.0	Signal	A		A
ANDERSON - EB	Waters to Bee Rd	5015015	5015	2790.9	AM	28.9	33	0.87	15.9	9.2	Signal	B		B
ANDERSON - EB	Waters to Bee Rd	5015015	5015	2790.9	MD	35.3	35	1.01	0.0	0.0	Signal	A		A
ANDERSON - EB	Waters to Bee Rd	5015015	5015	2790.9	PM	22.4	35	0.64	33.6	22.8	Signal	C		C
ANDERSON - EB	Bee Rd to Harry Truman NB Ramp	5015016	5015	388.1	AM	21.4	35	0.61	5.9	2.4	Signal	A		A
ANDERSON - EB	Bee Rd to Harry Truman NB Ramp	5015016	5015	388.1	MD	32.5	35	0.93	0.9	0.0	Signal	A		A
ANDERSON - EB	Bee Rd to Harry Truman NB Ramp	5015016	5015	388.1	PM	25.9	35	0.74	2.5	0.0	Signal	A		A
ANDERSON - EB	Harry Truman NB Ramp to Skidaway	5015017	5015	1313.1	AM	19.6	35	0.56	20.7	7.0	Signal	C		C
ANDERSON - EB	Harry Truman NB Ramp to Skidaway	5015017	5015	1313.1	MD	13.1	35	0.38	40.6	29.0	Signal	D	Delays due to 5 legged intersection	Skidaway improvements will improve operations
ANDERSON - EB	Harry Truman NB Ramp to Skidaway	5015017	5015	1313.1	PM	18.2	35	0.52	29.1	13.8	Signal	C		C
HENRY - WB	Skidaway to Harry Truman NB Ramp	5018002	5018	1310	AM	20.8	35	0.59	19.7	11.0	Signal	B		B
HENRY - WB	Skidaway to Harry Truman NB Ramp	5018002	5018	1310	MD	33.0	35	0.94	1.5	0.0	Signal	A		A
HENRY - WB	Skidaway to Harry Truman NB Ramp	5018002	5018	1310	PM	28.7	35	0.82	8.4	2.0	Signal	A		A
HENRY - WB	Harry Truman NB Ramp to Harry Truman SB Ramp	5018003	5018	281.5	AM	20.7	35	0.59	3.8	0.0	Signal	A		A
HENRY - WB	Harry Truman NB Ramp to Harry Truman SB Ramp	5018003	5018	281.5	MD	20.1	35	0.57	16.2	12.0	Signal	B		B
HENRY - WB	Harry Truman NB Ramp to Harry Truman SB Ramp	5018003	5018	281.5	PM	27.7	35	0.79	6.6	0.0	Signal	A		A
HENRY - WB	Harry Truman SB Ramp to Waters	5018004	5018	2789.7	AM	32.9	32	1.03	6.5	3.2	Signal	A		A
HENRY - WB	Harry Truman SB Ramp to Waters	5018004	5018	2789.7	MD	25.6	35	0.73	20.0	14.0	Signal	B		B
HENRY - WB	Harry Truman SB Ramp to Waters	5018004	5018	2789.7	PM	31.6	35	0.90	18.9	12.3	Signal	B		B
HENRY - WB	Waters to Harmon	5018005	5018	737.2	AM	32.0	30	1.07	0.9	0.0	Signal	A		A
HENRY - WB	Waters to Harmon	5018005	5018	737.2	MD	28.0	30	0.93	1.2	0.0	Signal	A		A
HENRY - WB	Waters to Harmon	5018005	5018	737.2	PM	36.6	30	1.22	0.7	0.0	Signal	A		A
HENRY - WB	Harmon to Atlantic	5018006	5018	1234.3	AM	33.7	30	1.12	0.3	0.0	Signal	A		A
HENRY - WB	Harmon to Atlantic	5018006	5018	1234.3	MD	37.8	30	1.26	0.0	0.0	Signal	A		A
HENRY - WB	Harmon to Atlantic	5018006	5018	1234.3	PM	34.9	30	1.16	0.0	0.0	Signal	A		A
HENRY - WB	Atlantic to East Broad St	5018007	5018	962.6	AM	15.3	29	0.53	24.2	17.8	CROSS STREET	C		C
HENRY - WB	Atlantic to East Broad St	5018007	5018	962.6	MD	27.6	30	0.92	4.5	3.5	CROSS STREET	A		A
HENRY - WB	Atlantic to East Broad St	5018007	5018	962.6	PM	21.3	30	0.71	16.5	10.5	CROSS STREET	B		B
HENRY - WB	East Broad St to Price	5018008	5018	648.2	AM	27.5	30	0.92	2.3	0.0	Signal	A		A
HENRY - WB	East Broad St to Price	5018008	5018	648.2	MD	31.3	30	1.04	0.3	0.0	Signal	A		A
HENRY - WB	East Broad St to Price	5018008	5018	648.2	PM	26.6	30	0.89	1.9	0.0	Signal	A		A
HENRY - WB	Price to Habersham	5018009	5018	279.5	AM	29.5	30	0.98	0.8	0.0	Signal	A		A
HENRY - WB	Price to Habersham	5018009	5018	279.5	MD	33.3	30	1.11	0.0	0.0	Signal	A		A
HENRY - WB	Price to Habersham	5018009	5018	279.5	PM	24.9	30	0.83	1.8	0.0	Signal	A		A
HENRY - WB	Habersham to Abercorn	5018010	5018	673.3	AM	29.0	30	0.97	1.0	0.0	Signal	A		A
HENRY - WB	Habersham to Abercorn	5018010	5018	673.3	MD	28.3	30	0.94	1.0	0.0	Signal	A		A
HENRY - WB	Habersham to Abercorn	5018010	5018	673.3	PM	24.7	30	0.82	3.3	0.0	Signal	A		A
HENRY - WB	Abercorn to Drayton	5018011	5018	388.3	AM	27.6	30	0.92	1.0	0.0	Signal	A		A
HENRY - WB	Abercorn to Drayton	5018011	5018	388.3	MD	22.5	30	0.75	5.0	0.0	Signal	A		A
HENRY - WB	Abercorn to Drayton	5018011	5018	388.3	PM	24.0	30	0.80	2.2	0.0	Signal	A		A
HENRY - WB	Drayton to Bull	5018012	5018	351.9	AM	26.9	30	0.90	1.4	0.0	Signal	A		A
HENRY - WB	Drayton to Bull	5018012	5018	351.9	MD	26.4	30	0.88	1.7	0.0	Signal	A		A
HENRY - WB	Drayton to Bull	5018012	5018	351.9	PM	25.3	30	0.84	1.6	0.0	Signal	A		A
HENRY - WB	Bull to Whitaker	5018013	5018	367.8	AM	23.7	30	0.79	1.7	0.0	Signal	A		A
HENRY - WB	Bull to Whitaker	5018013	5018	367.8	MD	23.3	30	0.78	2.5	0.0	Signal	A		A
HENRY - WB	Bull to Whitaker	5018013	5018	367.8	PM	24.9	30	0.83	1.5	0.0	Signal	A		A
HENRY - WB	Whitaker to Barnard	5018014	5018	364.9	AM	26.6	30	0.89	0.8	0.0	Signal	A		A
HENRY - WB	Whitaker to Barnard	5018014	5018	364.9	MD	24.1	30	0.80	2.3	0.0	Signal	A		A
HENRY - WB	Whitaker to Barnard	5018014	5018	364.9	PM	28.9	30	0.96	0.8	0.0	Signal	A		A
HENRY - WB	Barnard to Jefferson	5018015	5018	369.4	AM	29.3	30	0.98	0.2	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
HENRY - WB	Barnard to Jefferson	5018015	5018	369.4	MD	28.1	30	0.94	0.3	0.0	Signal	A		A
HENRY - WB	Barnard to Jefferson	5018015	5018	369.4	PM	32.1	30	1.07	0.2	0.0	Signal	A		A
HENRY - WB	Jefferson to Montgomery	5018016	5018	303.5	AM	19.7	30	0.66	4.1	0.6	Flashing Yellow	B		B
HENRY - WB	Jefferson to Montgomery	5018016	5018	303.5	MD	25.6	30	0.85	1.7	0.0	Flashing Yellow	A		A
HENRY - WB	Jefferson to Montgomery	5018016	5018	303.5	PM	25.8	30	0.86	0.3	0.0	Flashing Yellow	A		A
HENRY - WB	Montgomery to MLK	5018017	5018	357.6	AM	21.8	30	0.73	2.2	0.0	Signal	A		A
HENRY - WB	Montgomery to MLK	5018017	5018	357.6	MD	19.0	30	0.63	5.7	0.0	Signal	A		A
HENRY - WB	Montgomery to MLK	5018017	5018	357.6	PM	22.2	30	0.74	2.3	0.0	Signal	A		A
GWINNETT - EB	I-516 to Railroad Crossing	5019002	5019	2974.9	AM	35.2	30	1.17	0.0	0.0	Signal	A		A
GWINNETT - EB	I-516 to Railroad Crossing	5019002	5019	2974.9	MD	35.7	30	1.19	0.0	0.0	Signal	A		A
GWINNETT - EB	I-516 to Railroad Crossing	5019002	5019	2974.9	PM	36.4	30	1.21	0.0	0.0	Signal	A		A
GWINNETT - EB	Railroad Crossing to Stiles	5019003	5019	3476.9	AM	28.3	28	1.02	1.6	0.8	Cross Street	A		A
GWINNETT - EB	Railroad Crossing to Stiles	5019003	5019	3476.9	MD	27.0	28	0.97	8.5	6.7	Cross Street	A		A
GWINNETT - EB	Railroad Crossing to Stiles	5019003	5019	3476.9	PM	23.9	28	0.86	20.0	8.0	Cross Street	B		B
GWINNETT - EB	Stiles to I-16	5019004	5019	2076.5	AM	28.2	35	0.80	15.6	6.0	Signal	B		B
GWINNETT - EB	Stiles to I-16	5019004	5019	2076.5	MD	22.6	35	0.64	22.1	5.0	Signal	C		C
GWINNETT - EB	Stiles to I-16	5019004	5019	2076.5	PM	29.4	35	0.84	8.2	4.4	Signal	A		A
GWINNETT - EB	I-16 to May	5019005	5019	943	AM	31.1	35	0.89	3.1	0.5	Signal	A		A
GWINNETT - EB	I-16 to May	5019005	5019	943	MD	35.9	35	1.03	2.2	0.0	Signal	A		A
GWINNETT - EB	I-16 to May	5019005	5019	943	PM	31.6	35	0.90	2.3	0.0	Signal	A		A
GWINNETT - EB	May to MLK	5019006	5019	1029.5	AM	22.8	35	0.65	14.6	6.5	Signal	B		B
GWINNETT - EB	May to MLK	5019006	5019	1029.5	MD	18.5	35	0.53	25.3	18.0	Signal	C		C
GWINNETT - EB	May to MLK	5019006	5019	1029.5	PM	15.3	35	0.44	35.2	23.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
GWINNETT - EB	MLK to Montgomery	5019007	5019	353.8	AM	20.9	25	0.84	2.3	0.0	Signal	A		A
GWINNETT - EB	MLK to Montgomery	5019007	5019	353.8	MD	13.4	25	0.54	15.3	10.7	Signal	B		B
GWINNETT - EB	MLK to Montgomery	5019007	5019	353.8	PM	12.0	25	0.48	14.8	8.0	Signal	B		B
GWINNETT - EB	Montgomery to Jefferson	5019008	5019	283.5	AM	27.5	25	1.10	0.1	0.0	Signal	A		A
GWINNETT - EB	Montgomery to Jefferson	5019008	5019	283.5	MD	25.0	25	1.00	0.2	0.0	Signal	A		A
GWINNETT - EB	Montgomery to Jefferson	5019008	5019	283.5	PM	20.3	25	0.81	2.7	0.0	Signal	A		A
GWINNETT - EB	Jefferson to Barnard	5019009	5019	367.8	AM	17.6	25	0.71	4.1	0.8	Flashing Yellow	C		C
GWINNETT - EB	Jefferson to Barnard	5019009	5019	367.8	MD	18.7	25	0.75	5.7	1.7	Flashing Yellow	C		C
GWINNETT - EB	Jefferson to Barnard	5019009	5019	367.8	PM	12.6	25	0.50	11.6	5.5	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
GWINNETT - EB	Barnard to Whitaker	5019010	5019	374.6	AM	16.2	25	0.65	6.5	1.0	AWSC	A		A
GWINNETT - EB	Barnard to Whitaker	5019010	5019	374.6	MD	16.4	25	0.65	5.0	0.0	AWSC	A		A
GWINNETT - EB	Barnard to Whitaker	5019010	5019	374.6	PM	11.3	25	0.45	17.7	8.5	AWSC	C		C
GWINNETT - EB	Whitaker to Park Ave	5019011	5019	919	AM	27.7	25	1.11	0.0	0.0	Cross Street	A		A
GWINNETT - EB	Whitaker to Park Ave	5019011	5019	919	MD	25.1	25	1.00	1.1	0.0	Cross Street	A		A
GWINNETT - EB	Whitaker to Park Ave	5019011	5019	919	PM	24.4	25	0.98	3.6	2.2	Cross Street	B		B
GWINNETT - EB	Park Ave to Drayton	5019013	5019	922.6	AM	23.7	25	0.95	2.2	0.0	Cross Street	B		B
GWINNETT - EB	Park Ave to Drayton	5019013	5019	922.6	MD	24.4	25	0.98	0.9	0.0	Cross Street	B		B
GWINNETT - EB	Park Ave to Drayton	5019013	5019	922.6	PM	23.9	25	0.96	2.7	0.0	Cross Street	B		B
GWINNETT - EB	Drayton to Abercorn	5019014	5019	352.4	AM	13.1	25	0.52	8.9	2.5	TWSC	A		A
GWINNETT - EB	Drayton to Abercorn	5019014	5019	352.4	MD	15.1	25	0.60	7.2	1.7	TWSC	A		A
GWINNETT - EB	Drayton to Abercorn	5019014	5019	352.4	PM	10.5	25	0.42	14.1	7.8	TWSC	B		B
GWINNETT - EB	Abercorn to Lincoln	5019015	5019	362.6	AM	16.6	25	0.66	5.1	0.5	TWSC	A		A
GWINNETT - EB	Abercorn to Lincoln	5019015	5019	362.6	MD	17.3	25	0.69	4.7	0.7	TWSC	A		A
GWINNETT - EB	Abercorn to Lincoln	5019015	5019	362.6	PM	14.8	25	0.59	7.5	2.0	TWSC	A		A
GWINNETT - EB	Lincoln to Habersham	5019016	5019	310.5	AM	13.1	25	0.52	8.4	2.0	AWSC	A		A
GWINNETT - EB	Lincoln to Habersham	5019016	5019	310.5	MD	13.6	25	0.54	6.0	1.7	AWSC	A		A
GWINNETT - EB	Lincoln to Habersham	5019016	5019	310.5	PM	10.0	25	0.40	17.4	8.3	AWSC	C		C
GWINNETT - EB	Habersham to Price	5019017	5019	298.3	AM	15.9	25	0.64	9.7	5.7	AWSC	A		A
GWINNETT - EB	Habersham to Price	5019017	5019	298.3	MD	21.8	25	0.87	1.1	0.0	AWSC	A		A
GWINNETT - EB	Habersham to Price	5019017	5019	298.3	PM	13.1	25	0.53	14.2	10.5	AWSC	B		B
GWINNETT - EB	Price to East Broad St	5019018	5019	647.3	AM	17.8	25	0.71	13.0	9.0	Signal	B		B
GWINNETT - EB	Price to East Broad St	5019018	5019	647.3	MD	14.8	25	0.59	15.2	13.0	Signal	B		B
GWINNETT - EB	Price to East Broad St	5019018	5019	647.3	PM	18.1	25	0.72	9.3	5.5	Signal	A		A
GWINNETT - EB	East Broad St to Harmon	5019019	5019	2174.1	AM	30.9	30	1.03	2.4	0.0	Signal	A		A
GWINNETT - EB	East Broad St to Harmon	5019019	5019	2174.1	MD	34.9	30	1.16	0.0	0.0	Signal	A		A
GWINNETT - EB	East Broad St to Harmon	5019019	5019	2174.1	PM	32.0	30	1.07	0.3	0.0	Signal	A		A
GWINNETT - EB	Harmon to Waters	5019020	5019	735.8	AM	24.5	30	0.82	4.5	0.3	Flashing Yellow	B		B
GWINNETT - EB	Harmon to Waters	5019020	5019	735.8	MD	21.2	30	0.71	7.1	3.0	Flashing Yellow	B		B
GWINNETT - EB	Harmon to Waters	5019020	5019	735.8	PM	17.3	30	0.58	12.8	4.2	Flashing Yellow	C		C
GWINNETT - EB	Waters to Wheaton	5019021	5019	773.1	AM	16.6	30	0.55	14.8	6.7	TWSC	B		B
GWINNETT - EB	Waters to Wheaton	5019021	5019	773.1	MD	19.7	30	0.66	8.2	1.0	TWSC	A		A
GWINNETT - EB	Waters to Wheaton	5019021	5019	773.1	PM	11.2	30	0.37	30.7	17.7	TWSC	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
GWINNETT - WB	Wheaton to Waters	5020001	5020	773.1	AM	18.4	30	0.61	9.8	0.3	TWSC	A		A
GWINNETT - WB	Wheaton to Waters	5020001	5020	773.1	MD	17.0	30	0.57	12.7	4.5	TWSC	B		B

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
GWINNETT - WB	Wheaton to Waters	5020001	5020	773.1	PM	17.5	30	0.58	11.9	1.3	TWSC	B		B
GWINNETT - WB	Waters to Harmon	5020002	5020	735.8	AM	26.5	30	0.88	2.1	0.0	TWSC	A		A
GWINNETT - WB	Waters to Harmon	5020002	5020	735.8	MD	27.3	30	0.91	2.0	0.0	TWSC	A		A
GWINNETT - WB	Waters to Harmon	5020002	5020	735.8	PM	25.4	30	0.85	3.3	0.4	TWSC	A		A
GWINNETT - WB	Harmon to East Broad St	5020003	5020	2174.1	AM	20.0	30	0.67	25.6	15.8	Flashing Yellow	B		B
GWINNETT - WB	Harmon to East Broad St	5020003	5020	2174.1	MD	23.0	30	0.77	15.0	16.5	Flashing Yellow	B		B
GWINNETT - WB	Harmon to East Broad St	5020003	5020	2174.1	PM	28.6	30	0.95	6.9	3.8	Flashing Yellow	A		A
GWINNETT - WB	East Broad St to Price	5020004	5020	647.3	AM	14.4	25	0.58	13.6	6.5	Signal	B		B
GWINNETT - WB	East Broad St to Price	5020004	5020	647.3	MD	14.1	25	0.56	12.9	8.0	Signal	B		B
GWINNETT - WB	East Broad St to Price	5020004	5020	647.3	PM	16.1	25	0.64	15.5	8.9	Signal	B		B
GWINNETT - WB	Price to Habersham	5020005	5020	298.3	AM	13.2	25	0.53	7.1	1.5	Signal	A		A
GWINNETT - WB	Price to Habersham	5020005	5020	298.3	MD	13.4	25	0.53	7.5	3.5	Signal	A		A
GWINNETT - WB	Price to Habersham	5020005	5020	298.3	PM	11.5	25	0.46	10.9	3.9	Signal	B		B
GWINNETT - WB	Habersham to Lincoln	5020006	5020	310.5	AM	12.3	25	0.49	8.7	2.8	AWSC	A		A
GWINNETT - WB	Habersham to Lincoln	5020006	5020	310.5	MD	13.4	25	0.54	7.8	0.0	AWSC	A		A
GWINNETT - WB	Habersham to Lincoln	5020006	5020	310.5	PM	11.0	25	0.44	11.6	2.8	AWSC	B		B
GWINNETT - WB	Lincoln to Abercorn	5020007	5020	362.6	AM	15.0	25	0.60	7.1	0.8	AWSC	A		A
GWINNETT - WB	Lincoln to Abercorn	5020007	5020	362.6	MD	15.3	25	0.61	5.4	1.0	AWSC	A		A
GWINNETT - WB	Lincoln to Abercorn	5020007	5020	362.6	PM	10.1	25	0.40	16.0	9.3	AWSC	C		C
GWINNETT - WB	Abercorn to Drayton	5020008	5020	352.4	AM	18.4	25	0.74	4.0	1.6	TWSC	A		A
GWINNETT - WB	Abercorn to Drayton	5020008	5020	352.4	MD	20.3	25	0.81	1.9	0.0	TWSC	A		A
GWINNETT - WB	Abercorn to Drayton	5020008	5020	352.4	PM	16.4	25	0.66	7.8	3.6	TWSC	A		A
GWINNETT - WB	Drayton to Gaston	5020009	5020	1150.6	AM	24.7	25	0.99	0.7	0.8	TWSC	A		A
GWINNETT - WB	Drayton to Gaston	5020009	5020	1150.6	MD	21.1	25	0.84	5.9	2.5	TWSC	A		A
GWINNETT - WB	Drayton to Gaston	5020009	5020	1150.6	PM	14.9	25	0.60	22.4	12.0	TWSC	C		C
GWINNETT - WB	Gaston to Whitaker	5020010	5020	726.5	AM	12.5	25	0.50	25.9	17.8	Signal	C		C
GWINNETT - WB	Gaston to Whitaker	5020010	5020	726.5	MD	12.4	25	0.50	24.3	13.0	Signal	C		C
GWINNETT - WB	Gaston to Whitaker	5020010	5020	726.5	PM	13.0	25	0.52	24.1	14.1	Signal	C		C
GWINNETT - WB	Whitaker to Whitaker	5020011	5020	1158.4	AM	24.8	25	0.99	1.9	0.0	Signal	A		A
GWINNETT - WB	Whitaker to Whitaker	5020011	5020	1158.4	MD	26.0	25	1.04	1.4	0.0	Signal	A		A
GWINNETT - WB	Whitaker to Whitaker	5020011	5020	1158.4	PM	24.8	25	0.99	1.2	0.0	Signal	A		A
GWINNETT - WB	Whitaker to Barnard	5020012	5020	374.6	AM	15.5	25	0.62	5.6	0.0	Cross Street	C		C
GWINNETT - WB	Whitaker to Barnard	5020012	5020	374.6	MD	13.9	25	0.55	6.9	1.0	Cross Street	C		C
GWINNETT - WB	Whitaker to Barnard	5020012	5020	374.6	PM	13.2	25	0.53	7.8	2.5	Cross Street	C		C
GWINNETT - WB	Barnard to Jefferson	5020013	5020	367.8	AM	23.3	25	0.93	1.3	0.0	AWSC	A		A
GWINNETT - WB	Barnard to Jefferson	5020013	5020	367.8	MD	25.1	25	1.00	0.2	0.0	AWSC	A		A
GWINNETT - WB	Barnard to Jefferson	5020013	5020	367.8	PM	23.1	25	0.92	0.9	0.0	AWSC	A		A
GWINNETT - WB	Jefferson to Montgomery	5020014	5020	283.5	AM	19.7	25	0.79	3.6	2.3	Flashing Yellow	B		B
GWINNETT - WB	Jefferson to Montgomery	5020014	5020	283.5	MD	28.4	25	1.14	0.7	0.0	Flashing Yellow	A		A
GWINNETT - WB	Jefferson to Montgomery	5020014	5020	283.5	PM	11.9	25	0.48	13.8	10.3	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
GWINNETT - WB	Montgomery to MLK	5020015	5020	353.8	AM	24.9	25	0.99	0.2	0.0	Signal	A		A
GWINNETT - WB	Montgomery to MLK	5020015	5020	353.8	MD	7.4	25	0.30	26.6	19.0	Signal	C		C
GWINNETT - WB	Montgomery to MLK	5020015	5020	353.8	PM	8.7	25	0.35	31.6	23.5	Signal	C		C
GWINNETT - WB	MLK to May	5020016	5020	1029.4	AM	22.0	35	0.63	17.8	10.0	Signal	B		B
GWINNETT - WB	MLK to May	5020016	5020	1029.4	MD	28.8	35	0.82	5.0	0.7	Signal	A		A
GWINNETT - WB	MLK to May	5020016	5020	1029.4	PM	29.3	35	0.84	5.6	1.3	Signal	A		A
GWINNETT - WB	May to I-16	5020017	5020	943.1	AM	28.5	35	0.81	7.2	3.5	Signal	A		A
GWINNETT - WB	May to I-16	5020017	5020	943.1	MD	35.5	35	1.01	0.6	0.0	Signal	A		A
GWINNETT - WB	May to I-16	5020017	5020	943.1	PM	25.2	35	0.72	14.1	4.0	Signal	B		B
GWINNETT - WB	I-16 to Stiles	5020018	5020	2076.5	AM	26.0	35	0.74	14.3	4.2	Signal	B		B
GWINNETT - WB	I-16 to Stiles	5020018	5020	2076.5	MD	27.0	35	0.77	14.6	4.3	Signal	B		B
GWINNETT - WB	I-16 to Stiles	5020018	5020	2076.5	PM	25.4	35	0.72	18.6	4.9	Signal	B		B
GWINNETT - WB	Stiles to Railroad Crossing	5020019	5020	3476.9	AM	27.3	28	0.98	2.0	0.0	Signal	A		A
GWINNETT - WB	Stiles to Railroad Crossing	5020019	5020	3476.9	MD	28.0	28	1.01	2.6	0.7	Signal	A		A
GWINNETT - WB	Stiles to Railroad Crossing	5020019	5020	3476.9	PM	25.5	28	0.92	13.9	1.7	Signal	B		B
GWINNETT - WB	Railroad Crossing to I-516	5020020	5020	2974.9	AM	35.0	30	1.17	0.0	0.0	Cross Street	A		A
GWINNETT - WB	Railroad Crossing to I-516	5020020	5020	2974.9	MD	36.6	30	1.22	0.0	0.0	Cross Street	A		A
GWINNETT - WB	Railroad Crossing to I-516	5020020	5020	2974.9	PM	35.1	30	1.17	1.4	0.1	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	US 80 to Alfred	5021002	5021	3561.5	AM	30.9	30	1.03	1.0	1.8	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	US 80 to Alfred	5021002	5021	3561.5	MD	31.9	30	1.06	0.5	1.7	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	US 80 to Alfred	5021002	5021	3561.5	PM	31.2	30	1.04	5.8	7.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Alfred to Fair	5021003	5021	1072.4	AM	18.1	30	0.60	18.1	1.8	Cross Street	C		C
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Alfred to Fair	5021003	5021	1072.4	MD	12.0	30	0.40	35.7	1.5	Cross Street	D	Residential Area	Slow speeds desired in this area with 90 degree turns

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Alfred to Fair	5021003	5021	1072.4	PM	23.7	30	0.79	6.3	0.0	Cross Street	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Fair to I-516	5021004	5021	3201.2	AM	38.1	40	0.95	6.2	0.0	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Fair to I-516	5021004	5021	3201.2	MD	34.0	40	0.85	11.5	0.0	Cross Street	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Fair to I-516	5021004	5021	3201.2	PM	39.7	40	0.99	2.0	0.0	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	I-516 to East Lathrop	5021005	5021	5696.8	AM	39.1	35	1.12	0.8	7.5	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	I-516 to East Lathrop	5021005	5021	5696.8	MD	36.6	35	1.05	2.6	0.0	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	I-516 to East Lathrop	5021005	5021	5696.8	PM	37.0	35	1.06	4.2	9.0	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	East Lathrop to Stiles	5021006	5021	603.2	AM	15.0	35	0.43	19.7	9.3	Signal	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	East Lathrop to Stiles	5021006	5021	603.2	MD	9.7	35	0.28	34.1	17.0	Signal	C		C
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	East Lathrop to Stiles	5021006	5021	603.2	PM	9.2	35	0.26	35.8	24.0	Signal	D	Short distance between East Lathrop and Stiles	Signal Operations - Coordinate signals between East Lathrop and Stiles
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Stiles to I-16	5021007	5021	1190.8	AM	34.5	35	0.98	2.3	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Stiles to I-16	5021007	5021	1190.8	MD	31.3	35	0.89	2.6	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Stiles to I-16	5021007	5021	1190.8	PM	35.8	35	1.02	1.2	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	I-16 to West Boundary	5021008	5021	1096.5	AM	31.6	35	0.90	8.1	4.0	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	I-16 to West Boundary	5021008	5021	1096.5	MD	15.2	35	0.43	26.0	17.0	Cross Street	D	Freq right turns	Construct right turn bay to remove turning traffic from 1 lane approach
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	I-16 to West Boundary	5021008	5021	1096.5	PM	17.3	35	0.49	27.3	12.3	Cross Street	D	Freq right turns	Construct right turn bay to remove turning traffic from 1 lane approach
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	West Boundary to MLK	5021009	5021	1483.5	AM	15.3	35	0.44	45.9	31.0	Signal	D	Eastbound Delays	Coordinate Westbound traffic between Montgomery and MLK to max efficiency and allow more time for EB
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	West Boundary to MLK	5021009	5021	1483.5	MD	19.0	35	0.54	24.2	10.0	Signal	C		C
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	West Boundary to MLK	5021009	5021	1483.5	PM	13.5	35	0.39	53.4	38.5	Signal	D	Eastbound Delays	Coordinate Westbound traffic between Montgomery and MLK to max efficiency and allow more time for EB
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	MLK to Montgomery	5021010	5021	344.3	AM	25.0	35	0.71	2.9	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	MLK to Montgomery	5021010	5021	344.3	MD	25.0	35	0.71	3.0	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	MLK to Montgomery	5021010	5021	344.3	PM	15.4	35	0.44	35.2	25.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Montgomery to Whitaker	5021011	5021	1044.5	AM	13.9	35	0.40	39.9	22.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Montgomery to Whitaker	5021011	5021	1044.5	MD	11.5	35	0.33	40.3	25.0	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Montgomery to Whitaker	5021011	5021	1044.5	PM	12.8	35	0.37	52.0	33.7	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Whitaker to Drayton	5021012	5021	736.3	AM	11.5	35	0.33	31.2	12.0	Signal	C		C
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Whitaker to Drayton	5021012	5021	736.3	MD	21.6	35	0.62	9.8	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Whitaker to Drayton	5021012	5021	736.3	PM	16.5	35	0.47	17.1	4.0	Signal	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Drayton to Abercorn	5021013	5021	355.6	AM	22.1	35	0.63	3.9	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Drayton to Abercorn	5021013	5021	355.6	MD	20.5	35	0.59	5.8	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Drayton to Abercorn	5021013	5021	355.6	PM	24.8	35	0.71	2.3	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Abercorn to Habersham	5021014	5021	662.9	AM	21.7	35	0.62	10.0	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Abercorn to Habersham	5021014	5021	662.9	MD	30.1	35	0.86	2.2	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Abercorn to Habersham	5021014	5021	662.9	PM	23.8	35	0.68	6.7	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Habersham to Price	5021015	5021	304	AM	15.2	35	0.43	11.8	5.5	Signal	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Habersham to Price	5021015	5021	304	MD	7.4	35	0.21	23.6	17.5	Signal	C		C
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Habersham to Price	5021015	5021	304	PM	5.0	35	0.14	41.3	24.0	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Price to East Broad St	5021016	5021	647.8	AM	19.5	35	0.56	14.4	4.8	Signal	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Price to East Broad St	5021016	5021	647.8	MD	24.1	35	0.69	5.6	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Price to East Broad St	5021016	5021	647.8	PM	17.1	35	0.49	19.9	4.3	Signal	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	East Broad St to Randolph	5021017	5021	727.6	AM	32.1	35	0.92	1.3	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	East Broad St to Randolph	5021017	5021	727.6	MD	33.6	35	0.96	1.2	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	East Broad St to Randolph	5021017	5021	727.6	PM	31.0	35	0.89	1.3	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Randolph to Waters	5021018	5021	2968.1	AM	30.6	35	0.88	8.3	0.0	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Randolph to Waters	5021018	5021	2968.1	MD	32.8	35	0.94	7.5	0.0	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Randolph to Waters	5021018	5021	2968.1	PM	30.5	35	0.87	10.3	0.0	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Waters to Live Oak	5021019	5021	943.5	AM	20.5	35	0.58	19.5	10.3	Signal	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Waters to Live Oak	5021019	5021	943.5	MD	36.3	35	1.04	1.0	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Waters to Live Oak	5021019	5021	943.5	PM	34.9	35	1.00	1.0	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Live Oak to Truman SB	5021020	5021	1850.7	AM	30.3	35	0.87	5.7	0.0	TWSC	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Live Oak to Truman SB	5021020	5021	1850.7	MD	33.4	35	0.95	1.8	0.0	TWSC	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Live Oak to Truman SB	5021020	5021	1850.7	PM	27.7	35	0.79	9.3	0.0	TWSC	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Truman SB to Truman NB	5021021	5021	407.1	AM	20.5	35	0.59	7.1	3.5	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Truman SB to Truman NB	5021021	5021	407.1	MD	32.3	35	0.92	0.9	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Truman SB to Truman NB	5021021	5021	407.1	PM	28.9	35	0.83	3.9	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Truman NB to Wheaton	5021022	5021	422.3	AM	27.4	35	0.78	2.3	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Truman NB to Wheaton	5021022	5021	422.3	MD	26.5	35	0.76	2.2	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - EB	Truman NB to Wheaton	5021022	5021	422.3	PM	28.8	35	0.82	1.7	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Wheaton to Truman NB	5022001	5022	422.3	AM	17.0	35	0.49	14.4	6.4	TWSC	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Wheaton to Truman NB	5022001	5022	422.3	MD	28.7	35	0.82	2.0	0.0	TWSC	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Wheaton to Truman NB	5022001	5022	422.3	PM	23.9	35	0.68	5.4	1.8	TWSC	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Truman NB to Truman SB	5022002	5022	407	AM	28.8	35	0.82	1.5	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Truman NB to Truman SB	5022002	5022	407	MD	36.9	35	1.05	0.4	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Truman NB to Truman SB	5022002	5022	407	PM	32.7	35	0.93	0.9	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Truman SB to Live Oak	5022003	5022	1850.7	AM	36.1	35	1.03	0.5	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Truman SB to Live Oak	5022003	5022	1850.7	MD	42.2	35	1.21	0.0	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Truman SB to Live Oak	5022003	5022	1850.7	PM	37.1	35	1.06	1.6	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Live Oak to Waters	5022004	5022	943.6	AM	24.5	35	0.70	12.7	5.8	TWSC	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Live Oak to Waters	5022004	5022	943.6	MD	40.6	35	1.16	0.0	0.0	TWSC	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Live Oak to Waters	5022004	5022	943.6	PM	32.4	35	0.92	5.0	2.8	TWSC	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Waters to Randolph	5022005	5022	2968	AM	32.3	35	0.92	6.6	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Waters to Randolph	5022005	5022	2968	MD	31.2	35	0.89	6.9	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Waters to Randolph	5022005	5022	2968	PM	33.5	35	0.96	4.7	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Randolph to East Broad St	5022006	5022	727.7	AM	13.5	35	0.39	26.2	13.8	Cross Street	E	Canopy - Constrained Corridor, Urban Core	Constrained Corridor - Improvements limited to Optimizing Signals, Delays acceptable in Core
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Randolph to East Broad St	5022006	5022	727.7	MD	30.4	35	0.87	2.2	0.0	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Randolph to East Broad St	5022006	5022	727.7	PM	15.8	35	0.45	33.4	21.3	Cross Street	D	Canopy - Constrained Corridor, Urban Core	Constrained Corridor - Improvements limited to Optimizing Signals, Delays acceptable in Core
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	East Broad St to Price	5022007	5022	647.8	AM	12.3	35	0.35	31.5	18.4	Signal	C		C
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	East Broad St to Price	5022007	5022	647.8	MD	16.6	35	0.47	25.4	16.0	Signal	C		C
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	East Broad St to Price	5022007	5022	647.8	PM	21.8	35	0.62	9.3	2.3	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Price to Habersham	5022008	5022	304	AM	23.9	35	0.68	2.5	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Price to Habersham	5022008	5022	304	MD	15.0	35	0.43	15.7	9.5	Signal	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Price to Habersham	5022008	5022	304	PM	25.0	35	0.72	3.0	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Habersham to Abercorn	5022009	5022	662.9	AM	27.4	35	0.78	3.6	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Habersham to Abercorn	5022009	5022	662.9	MD	25.6	35	0.73	4.7	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Habersham to Abercorn	5022009	5022	662.9	PM	16.8	35	0.48	19.9	10.0	Signal	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Abercorn to Drayton	5022010	5022	355.6	AM	24.3	35	0.69	3.8	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Abercorn to Drayton	5022010	5022	355.6	MD	6.0	35	0.17	41.0	26.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Abercorn to Drayton	5022010	5022	355.6	PM	21.5	35	0.61	4.2	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Drayton to Whitaker	5022011	5022	736.2	AM	26.7	35	0.76	4.4	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Drayton to Whitaker	5022011	5022	736.2	MD	9.2	35	0.26	43.9	21.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Drayton to Whitaker	5022011	5022	736.2	PM	19.1	35	0.54	13.1	1.0	Signal	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Whitaker to Montgomery	5022012	5022	1044.6	AM	17.1	35	0.49	22.4	6.8	Signal	C		C
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Whitaker to Montgomery	5022012	5022	1044.6	MD	26.6	35	0.76	6.6	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Whitaker to Montgomery	5022012	5022	1044.6	PM	20.2	35	0.58	19.3	6.0	Signal	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Montgomery to MLK	5022013	5022	344.3	AM	22.6	35	0.65	3.6	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Montgomery to MLK	5022013	5022	344.3	MD	11.7	35	0.33	27.2	18.5	Signal	C		C
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Montgomery to MLK	5022013	5022	344.3	PM	19.2	35	0.55	5.0	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	MLK to West Boundary	5022014	5022	1483.5	AM	25.7	35	0.73	11.1	3.5	Signal	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	MLK to West Boundary	5022014	5022	1483.5	MD	21.1	35	0.60	18.9	6.0	Signal	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	MLK to West Boundary	5022014	5022	1483.5	PM	25.7	35	0.74	12.6	6.0	Signal	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	West Boundary to I-16	5022015	5022	1096.5	AM	34.4	35	0.98	1.4	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	West Boundary to I-16	5022015	5022	1096.5	MD	34.3	35	0.98	1.3	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	West Boundary to I-16	5022015	5022	1096.5	PM	33.0	35	0.94	1.6	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	I-16 to Stiles	5022016	5022	1190.8	AM	28.4	35	0.81	11.9	8.0	Cross Street	B		B

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	I-16 to Stiles	5022016	5022	1190.8	MD	34.7	35	0.99	7.7	3.5	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	I-16 to Stiles	5022016	5022	1190.8	PM	21.2	35	0.61	16.2	11.0	Cross Street	C		C
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Stiles to East Lathrop	5022017	5022	603.2	AM	26.9	35	0.77	7.2	1.3	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Stiles to East Lathrop	5022017	5022	603.2	MD	23.8	35	0.68	5.8	1.5	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Stiles to East Lathrop	5022017	5022	603.2	PM	22.4	35	0.64	9.1	2.8	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	East Lathrop to I-516	5022018	5022	5696.8	AM	43.3	35	1.24	0.0	0.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	East Lathrop to I-516	5022018	5022	5696.8	MD	39.3	35	1.12	0.0	3.0	Signal	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	East Lathrop to I-516	5022018	5022	5696.8	PM	31.7	35	0.91	13.1	0.0	Signal	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	I-516 to Fair	5022019	5022	3201.2	AM	40.4	40	1.01	1.7	0.0	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	I-516 to Fair	5022019	5022	3201.2	MD	41.4	40	1.03	0.5	0.0	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	I-516 to Fair	5022019	5022	3201.2	PM	42.4	40	1.06	6.5	0.0	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Fair to Alfred	5022020	5022	1072.4	AM	21.7	30	0.72	9.9	1.3	Cross Street	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Fair to Alfred	5022020	5022	1072.4	MD	26.1	30	0.87	3.5	0.0	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Fair to Alfred	5022020	5022	1072.4	PM	19.3	30	0.64	13.0	0.0	Cross Street	B		B
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Alfred to US 80	5022021	5022	3561.5	AM	25.8	30	0.86	15.3	17.3	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Alfred to US 80	5022021	5022	3561.5	MD	29.5	30	0.98	11.1	13.0	Cross Street	A		A
ALFRED/FAIR/LOUISVILLE/ LIBERTY/WHEATON - WB	Alfred to US 80	5022021	5022	3561.5	PM	20.1	30	0.67	42.4	38.3	Cross Street	B		B
OGLETHORPE - EB	Fahm to MLK	5023002	5023	954	AM	16.8	35	0.48	30.3	18.3	Signal	C		C
OGLETHORPE - EB	Fahm to MLK	5023002	5023	954	MD	10.8	35	0.31	45.3	29.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
OGLETHORPE - EB	Fahm to MLK	5023002	5023	954	PM	16.9	35	0.48	26.9	16.8	Signal	C		C
OGLETHORPE - EB	MLK to Montgomery	5023003	5023	363.1	AM	7.8	25	0.31	24.9	16.7	Signal	C		C
OGLETHORPE - EB	MLK to Montgomery	5023003	5023	363.1	MD	19.4	25	0.78	3.6	0.0	Signal	A		A
OGLETHORPE - EB	MLK to Montgomery	5023003	5023	363.1	PM	18.9	25	0.76	3.2	0.0	Signal	A		A
OGLETHORPE - EB	Montgomery to Whitaker	5023004	5023	1041.8	AM	22.6	25	0.91	8.1	4.7	Signal	A		A
OGLETHORPE - EB	Montgomery to Whitaker	5023004	5023	1041.8	MD	18.1	25	0.72	10.8	0.0	Signal	B		B
OGLETHORPE - EB	Montgomery to Whitaker	5023004	5023	1041.8	PM	20.0	25	0.80	9.4	5.0	Signal	A		A
OGLETHORPE - EB	Whitaker to Drayton	5023005	5023	725.6	AM	10.6	25	0.43	29.1	22.0	Signal	C		C
OGLETHORPE - EB	Whitaker to Drayton	5023005	5023	725.6	MD	17.5	25	0.70	12.2	4.0	Signal	B		B
OGLETHORPE - EB	Whitaker to Drayton	5023005	5023	725.6	PM	19.7	25	0.79	10.0	5.3	Signal	A		A
OGLETHORPE - EB	Drayton to Abercorn	5023006	5023	357.1	AM	22.6	25	0.91	1.1	0.0	Signal	A		A
OGLETHORPE - EB	Drayton to Abercorn	5023006	5023	357.1	MD	15.4	25	0.62	15.4	11.0	Signal	B		B
OGLETHORPE - EB	Drayton to Abercorn	5023006	5023	357.1	PM	22.1	25	0.88	2.0	0.0	Signal	A		A
OGLETHORPE - EB	Abercorn to Habersham	5023007	5023	679.9	AM	17.3	25	0.69	11.7	7.7	Signal	B		B
OGLETHORPE - EB	Abercorn to Habersham	5023007	5023	679.9	MD	25.1	25	1.00	0.0	0.0	Signal	A		A
OGLETHORPE - EB	Abercorn to Habersham	5023007	5023	679.9	PM	16.6	25	0.66	12.2	6.8	Signal	B		B
OGLETHORPE - EB	Habersham to Price	5023008	5023	292.7	AM	24.1	25	0.96	0.7	0.0	Signal	A		A
OGLETHORPE - EB	Habersham to Price	5023008	5023	292.7	MD	26.2	25	1.05	0.1	0.0	Signal	A		A
OGLETHORPE - EB	Habersham to Price	5023008	5023	292.7	PM	10.9	25	0.43	17.6	10.0	Signal	B		B
OGLETHORPE - EB	Price to East Broad St	5023009	5023	647.8	AM	8.5	25	0.34	38.1	28.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
OGLETHORPE - EB	Price to East Broad St	5023009	5023	647.8	MD	15.5	25	0.62	11.6	6.0	Signal	B		B
OGLETHORPE - EB	Price to East Broad St	5023009	5023	647.8	PM	6.1	25	0.25	68.4	52.8	Signal	E	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
OGLETHORPE - WB	East Broad St to Price	5024002	5024	647.7	AM	23.0	25	0.92	1.1	0.0	TWSC	A		A
OGLETHORPE - WB	East Broad St to Price	5024002	5024	647.7	MD	8.1	25	0.33	36.3	24.0	TWSC	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
OGLETHORPE - WB	East Broad St to Price	5024002	5024	647.7	PM	22.7	25	0.91	1.6	0.0	TWSC	A		A
OGLETHORPE - WB	Price to Habersham	5024003	5024	292.7	AM	6.7	25	0.27	25.3	19.3	Signal	C		C
OGLETHORPE - WB	Price to Habersham	5024003	5024	292.7	MD	9.0	25	0.36	16.1	9.0	Signal	B		B
OGLETHORPE - WB	Price to Habersham	5024003	5024	292.7	PM	10.2	25	0.41	12.9	6.3	Signal	B		B
OGLETHORPE - WB	Habersham to Abercorn	5024004	5024	679.9	AM	24.0	25	0.96	0.8	0.0	Signal	A		A
OGLETHORPE - WB	Habersham to Abercorn	5024004	5024	679.9	MD	22.5	25	0.90	2.7	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
OGLETHORPE - WB	Habersham to Abercorn	5024004	5024	679.9	PM	22.8	25	0.91	2.0	0.0	Signal	A		A
OGLETHORPE - WB	Abercorn to Drayton	5024005	5024	357.1	AM	17.1	25	0.68	6.0	0.7	Signal	A		A
OGLETHORPE - WB	Abercorn to Drayton	5024005	5024	357.1	MD	23.4	25	0.93	1.1	0.0	Signal	A		A
OGLETHORPE - WB	Abercorn to Drayton	5024005	5024	357.1	PM	20.1	25	0.80	7.3	5.3	Signal	A		A
OGLETHORPE - WB	Drayton to Whitaker	5024006	5024	725.7	AM	23.6	25	0.94	2.5	0.0	Signal	A		A
OGLETHORPE - WB	Drayton to Whitaker	5024006	5024	725.7	MD	19.8	25	0.79	13.3	6.0	Signal	B		B
OGLETHORPE - WB	Drayton to Whitaker	5024006	5024	725.7	PM	14.5	25	0.58	17.4	7.5	Signal	B		B
OGLETHORPE - WB	Whitaker to Montgomery	5024007	5024	1041.8	AM	11.4	25	0.46	34.8	27.3	Signal	C		C
OGLETHORPE - WB	Whitaker to Montgomery	5024007	5024	1041.8	MD	15.3	25	0.61	28.5	22.0	Signal	C		C
OGLETHORPE - WB	Whitaker to Montgomery	5024007	5024	1041.8	PM	11.0	25	0.44	35.9	24.8	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
OGLETHORPE - WB	Montgomery to MLK	5024008	5024	363	AM	3.2	25	0.13	69.7	56.3	Signal	E	Short distance between signals	Coordinate signals between Montgomery and Fahm
OGLETHORPE - WB	Montgomery to MLK	5024008	5024	363	MD	16.8	25	0.67	10.0	6.0	Signal	A		A
OGLETHORPE - WB	Montgomery to MLK	5024008	5024	363	PM	10.4	25	0.41	14.4	6.0	Signal	B		B
OGLETHORPE - WB	MLK to Fahm	5024009	5024	954	AM	12.0	35	0.34	38.0	23.3	Signal	D	Short distance between signals	Coordinate signals between Montgomery and Fahm
OGLETHORPE - WB	MLK to Fahm	5024009	5024	954	MD	20.8	35	0.59	21.1	11.3	Signal	C		C
OGLETHORPE - WB	MLK to Fahm	5024009	5024	954	PM	15.3	35	0.44	33.2	17.8	Signal	C		C
I 16/TALMADGE MEMORIAL BRIDGE - EB	Chatham County Line to Chatham County Line	5025002	5025	8557.1	AM	74.9	70	1.07	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Chatham County Line to Chatham County Line	5025002	5025	8557.1	MD	72.5	70	1.04	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Chatham County Line to Chatham County Line	5025002	5025	8557.1	PM	70.1	70	1.00	1.9	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Chatham County Line to Bloomingdale	5025003	5025	6535.7	AM	73.3	70	1.05	0.0	0.0	City Limit	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Chatham County Line to Bloomingdale	5025003	5025	6535.7	MD	76.5	70	1.09	0.0	0.0	City Limit	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Chatham County Line to Bloomingdale	5025003	5025	6535.7	PM	72.3	70	1.03	0.5	0.0	City Limit	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Bloomingdale to Chatham County Line	5025004	5025	6685.7	AM	74.4	65	1.15	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Bloomingdale to Chatham County Line	5025004	5025	6685.7	MD	74.0	65	1.14	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Bloomingdale to Chatham County Line	5025004	5025	6685.7	PM	69.6	65	1.07	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Chatham County Line to Pooler Pkwy	5025005	5025	7946.4	AM	73.5	65	1.13	0.0	0.0	City Limit	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Chatham County Line to Pooler Pkwy	5025005	5025	7946.4	MD	72.9	65	1.12	0.0	0.0	City Limit	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Chatham County Line to Pooler Pkwy	5025005	5025	7946.4	PM	72.5	65	1.12	0.0	0.0	City Limit	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Pooler Pkwy to I-95	5025006	5025	11121.6	AM	71.7	65	1.10	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Pooler Pkwy to I-95	5025006	5025	11121.6	MD	72.4	65	1.11	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Pooler Pkwy to I-95	5025006	5025	11121.6	PM	70.7	65	1.09	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	I-95 to Dean Forest	5025007	5025	13520.7	AM	63.8	65	0.98	10.3	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	I-95 to Dean Forest	5025007	5025	13520.7	MD	72.2	65	1.11	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	I-95 to Dean Forest	5025007	5025	13520.7	PM	69.8	65	1.07	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Dean Forest to Chatham Pkwy	5025008	5025	13084.3	AM	66.2	65	1.02	1.2	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Dean Forest to Chatham Pkwy	5025008	5025	13084.3	MD	68.7	65	1.06	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Dean Forest to Chatham Pkwy	5025008	5025	13084.3	PM	67.3	65	1.04	1.3	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Chatham Pkwy to Lynns Pkwy	5025009	5025	8225.6	AM	66.0	55	1.20	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Chatham Pkwy to Lynns Pkwy	5025009	5025	8225.6	MD	62.0	55	1.13	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Chatham Pkwy to Lynns Pkwy	5025009	5025	8225.6	PM	62.0	55	1.13	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Lynns Pkwy to Stiles	5025010	5025	5743.2	AM	63.5	55	1.16	0.0	0.0	Cross Street	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
I 16/TALMADGE MEMORIAL BRIDGE - EB	Lynns Pkwy to Stiles	5025010	5025	5743.2	MD	62.9	55	1.14	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Lynns Pkwy to Stiles	5025010	5025	5743.2	PM	58.6	55	1.06	0.1	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Stiles to Gwinnett	5025011	5025	3607.6	AM	57.2	55	1.04	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Stiles to Gwinnett	5025011	5025	3607.6	MD	58.3	55	1.06	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Stiles to Gwinnett	5025011	5025	3607.6	PM	52.7	55	0.96	3.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Gwinnett to Louisville	5025012	5025	3307.7	AM	55.0	45	1.22	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Gwinnett to Louisville	5025012	5025	3307.7	MD	54.2	45	1.20	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Gwinnett to Louisville	5025012	5025	3307.7	PM	53.4	45	1.19	0.5	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Louisville to Bay St	5025013	5025	2569.7	AM	59.1	45	1.31	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Louisville to Bay St	5025013	5025	2569.7	MD	59.8	45	1.33	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Louisville to Bay St	5025013	5025	2569.7	PM	54.6	45	1.21	0.4	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Bay St to Center of Bridge	5025014	5025	2087	AM	57.8	45	1.28	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Bay St to Center of Bridge	5025014	5025	2087	MD	54.6	45	1.21	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Bay St to Center of Bridge	5025014	5025	2087	PM	50.7	45	1.13	0.4	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Center of Bridge to Chatham County Line	5025015	5025	5138.5	AM	58.3	45	1.30	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Center of Bridge to Chatham County Line	5025015	5025	5138.5	MD	52.3	45	1.16	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - EB	Center of Bridge to Chatham County Line	5025015	5025	5138.5	PM	53.9	45	1.20	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Chatham County Line to Center of Bridge	5026002	5026	5138.6	AM	59.3	45	1.32	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Chatham County Line to Center of Bridge	5026002	5026	5138.6	MD	57.7	45	1.28	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Chatham County Line to Center of Bridge	5026002	5026	5138.6	PM	51.1	45	1.14	1.2	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Center of Bridge to Bay St	5026003	5026	2086.9	AM	62.9	45	1.40	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Center of Bridge to Bay St	5026003	5026	2086.9	MD	59.3	45	1.32	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Center of Bridge to Bay St	5026003	5026	2086.9	PM	52.5	45	1.17	0.2	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Bay St to Louisville	5026004	5026	2569.7	AM	63.3	45	1.41	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Bay St to Louisville	5026004	5026	2569.7	MD	63.7	45	1.42	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Bay St to Louisville	5026004	5026	2569.7	PM	58.2	45	1.29	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Louisville to Gwinnett	5026005	5026	3328.7	AM	56.9	45	1.26	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Louisville to Gwinnett	5026005	5026	3328.7	MD	53.2	45	1.18	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Louisville to Gwinnett	5026005	5026	3328.7	PM	51.0	45	1.13	0.1	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Gwinnett to Stiles	5026006	5026	3257.8	AM	64.6	55	1.17	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Gwinnett to Stiles	5026006	5026	3257.8	MD	60.1	55	1.09	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Gwinnett to Stiles	5026006	5026	3257.8	PM	53.6	55	0.97	1.7	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Stiles to Lynns Pkwy	5026007	5026	5725.1	AM	63.5	55	1.15	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Stiles to Lynns Pkwy	5026007	5026	5725.1	MD	63.4	55	1.15	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Stiles to Lynns Pkwy	5026007	5026	5725.1	PM	55.4	55	1.01	0.7	0.0	Cross Street	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
I 16/TALMADGE MEMORIAL BRIDGE - WB	Lynns Pkwy to Chatham Pkwy	5026008	5026	8316.4	AM	63.1	55	1.15	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Lynns Pkwy to Chatham Pkwy	5026008	5026	8316.4	MD	62.3	55	1.13	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Lynns Pkwy to Chatham Pkwy	5026008	5026	8316.4	PM	55.3	55	1.01	1.3	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Chatham Pkwy to Dean Forest	5026009	5026	13084.4	AM	67.4	65	1.04	0.7	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Chatham Pkwy to Dean Forest	5026009	5026	13084.4	MD	66.5	65	1.02	0.1	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Chatham Pkwy to Dean Forest	5026009	5026	13084.4	PM	59.4	65	0.91	14.8	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Dean Forest to I-95	5026010	5026	13520.6	AM	68.9	65	1.06	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Dean Forest to I-95	5026010	5026	13520.6	MD	68.7	65	1.06	1.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Dean Forest to I-95	5026010	5026	13520.6	PM	59.9	65	0.92	12.4	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	I-95 to Pooler Pkwy	5026011	5026	11121.6	AM	71.9	65	1.11	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	I-95 to Pooler Pkwy	5026011	5026	11121.6	MD	72.2	65	1.11	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	I-95 to Pooler Pkwy	5026011	5026	11121.6	PM	65.7	65	1.01	2.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Pooler Pkwy to Chatham County Line	5026012	5026	7946.5	AM	72.8	65	1.12	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Pooler Pkwy to Chatham County Line	5026012	5026	7946.5	MD	72.6	65	1.12	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Pooler Pkwy to Chatham County Line	5026012	5026	7946.5	PM	65.5	65	1.01	2.7	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Chatham County Line to Bloomingdale	5026013	5026	6685.6	AM	71.8	65	1.10	0.0	0.0	City Limit	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Chatham County Line to Bloomingdale	5026013	5026	6685.6	MD	72.8	65	1.12	0.0	0.0	City Limit	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Chatham County Line to Bloomingdale	5026013	5026	6685.6	PM	67.5	65	1.04	0.7	0.0	City Limit	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Bloomingdale to Chatham County Line	5026014	5026	6535.7	AM	73.1	70	1.04	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Bloomingdale to Chatham County Line	5026014	5026	6535.7	MD	76.1	70	1.09	0.0	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Bloomingdale to Chatham County Line	5026014	5026	6535.7	PM	66.6	70	0.95	3.3	0.0	Cross Street	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Chatham County Line to Chatham County Line	5026015	5026	8557.1	AM	72.5	70	1.04	0.0	0.0	City Limit	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Chatham County Line to Chatham County Line	5026015	5026	8557.1	MD	73.2	70	1.05	0.0	0.0	City Limit	A		A
I 16/TALMADGE MEMORIAL BRIDGE - WB	Chatham County Line to Chatham County Line	5026015	5026	8557.1	PM	67.5	70	0.96	3.9	0.0	City Limit	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Effingham County to Jimmy Deloach	5027001	5027	7829.1	AM	54.5	55	0.99	0.9	0.0	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Effingham County to Jimmy Deloach	5027001	5027	7829.1	MD	52.9	55	0.96	3.9	0.0	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Effingham County to Jimmy Deloach	5027001	5027	7829.1	PM	47.0	55	0.85	16.7	0.0	Signal	B		B
US 80 - EB (STAGECOACH TO BAY ST)	Jimmy Deloach to US 17	5027002	5027	2692.8	AM	49.0	45	1.09	0.1	0.0	TWSC	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Jimmy Deloach to US 17	5027002	5027	2692.8	MD	53.5	45	1.19	0.0	0.0	TWSC	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Jimmy Deloach to US 17	5027002	5027	2692.8	PM	40.9	45	0.91	4.2	0.0	TWSC	A		A
US 80 - EB (STAGECOACH TO BAY ST)	US 17 to Pooler Pkwy	5027003	5027	10745.2	AM	46.0	45	1.02	8.5	6.8	Cross Street	A		A
US 80 - EB (STAGECOACH TO BAY ST)	US 17 to Pooler Pkwy	5027003	5027	10745.2	MD	52.7	45	1.17	0.0	0.0	Cross Street	A		A
US 80 - EB (STAGECOACH TO BAY ST)	US 17 to Pooler Pkwy	5027003	5027	10745.2	PM	43.9	45	0.98	5.6	8.0	Cross Street	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Pooler Pkwy to Begin Split for one way	5027004	5027	3575.9	AM	46.7	35	1.33	0.0	0.0	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Pooler Pkwy to Begin Split for one way	5027004	5027	3575.9	MD	49.4	35	1.41	0.0	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
US 80 - EB (STAGECOACH TO BAY ST)	Pooler Pkwy to Begin Split for one way	5027004	5027	3575.9	PM	45.1	35	1.29	0.0	0.0	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Begin Split for one way to Rogers	5027005	5027	3064.4	AM	21.1	35	0.60	42.4	33.3	Cross Street	C		C
US 80 - EB (STAGECOACH TO BAY ST)	Begin Split for one way to Rogers	5027005	5027	3064.4	MD	36.9	35	1.05	0.0	0.0	Cross Street	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Begin Split for one way to Rogers	5027005	5027	3064.4	PM	28.5	35	0.81	17.8	10.7	Cross Street	B		B
US 80 - EB (STAGECOACH TO BAY ST)	Rogers to Parsons	5027006	5027	2692.8	AM	32.2	45	0.72	20.0	7.3	Cross Street	C		C
US 80 - EB (STAGECOACH TO BAY ST)	Rogers to Parsons	5027006	5027	2692.8	MD	42.9	45	0.95	2.0	0.0	Cross Street	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Rogers to Parsons	5027006	5027	2692.8	PM	36.6	45	0.81	10.0	2.7	Cross Street	B		B
US 80 - EB (STAGECOACH TO BAY ST)	Parsons to I-95 NB Ramp	5027007	5027	1235.3	AM	41.4	45	0.92	1.6	0.0	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Parsons to I-95 NB Ramp	5027007	5027	1235.3	MD	17.0	45	0.38	32.7	16.3	Signal	C		C
US 80 - EB (STAGECOACH TO BAY ST)	Parsons to I-95 NB Ramp	5027007	5027	1235.3	PM	37.4	45	0.83	3.7	0.0	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	I-95 NB Ramp to Coleman	5027008	5027	3267.5	AM	46.9	45	1.04	0.3	0.0	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	I-95 NB Ramp to Coleman	5027008	5027	3267.5	MD	39.3	45	0.87	7.6	0.0	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	I-95 NB Ramp to Coleman	5027008	5027	3267.5	PM	45.1	45	1.00	0.5	0.0	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Coleman to SH 307 - Bourne	5027009	5027	11600.2	AM	50.1	50	1.00	6.5	8.5	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Coleman to SH 307 - Bourne	5027009	5027	11600.2	MD	52.3	50	1.05	1.5	0.0	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Coleman to SH 307 - Bourne	5027009	5027	11600.2	PM	44.7	50	0.89	18.6	0.0	Signal	B		B
US 80 - EB (STAGECOACH TO BAY ST)	SH 307 - Bourne to Heidt	5027010	5027	11979.2	AM	46.9	45	1.04	3.4	9.7	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	SH 307 - Bourne to Heidt	5027010	5027	11979.2	MD	48.1	45	1.07	0.0	4.3	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	SH 307 - Bourne to Heidt	5027010	5027	11979.2	PM	46.0	45	1.02	3.7	8.7	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Heidt to Alfred	5027011	5027	3726.8	AM	51.6	35	1.48	0.0	0.0	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Heidt to Alfred	5027011	5027	3726.8	MD	44.9	35	1.28	0.0	2.3	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Heidt to Alfred	5027011	5027	3726.8	PM	42.3	35	1.21	0.0	0.0	Signal	A		A
US 80 - EB (STAGECOACH TO BAY ST)	Alfred to Burnsed	5027012	5027	2450.6	AM	22.5	35	0.64	26.5	26.7	Signal	C		C
US 80 - EB (STAGECOACH TO BAY ST)	Alfred to Burnsed	5027012	5027	2450.6	MD	26.4	35	0.75	30.4	26.7	Signal	C		C
US 80 - EB (STAGECOACH TO BAY ST)	Alfred to Burnsed	5027012	5027	2450.6	PM	33.2	35	0.95	4.8	2.3	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Burnsed to Alfred	5028001	5028	2450.6	AM	32.8	35	0.94	8.5	6.3	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Burnsed to Alfred	5028001	5028	2450.6	MD	38.5	35	1.10	0.0	0.0	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Burnsed to Alfred	5028001	5028	2450.6	PM	24.7	35	0.71	19.5	8.3	Signal	B		B
US 80 - WB (BAY ST TO STAGECOACH)	Alfred to Heidt	5028002	5028	3726.8	AM	41.2	35	1.18	1.9	2.5	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Alfred to Heidt	5028002	5028	3726.8	MD	55.6	35	1.59	0.0	0.0	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Alfred to Heidt	5028002	5028	3726.8	PM	42.8	35	1.22	0.0	0.0	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Heidt to SH 307 - Bourne	5028003	5028	11979.2	AM	45.0	45	1.00	13.7	13.3	Signal	B		B
US 80 - WB (BAY ST TO STAGECOACH)	Heidt to SH 307 - Bourne	5028003	5028	11979.2	MD	47.1	45	1.05	22.4	26.5	Signal	C		C
US 80 - WB (BAY ST TO STAGECOACH)	Heidt to SH 307 - Bourne	5028003	5028	11979.2	PM	37.5	45	0.83	38.7	33.0	Signal	D	Excessive delay at Dean Forest Rd	All the delay occurs at the intersection and it appears this could be minimized through signal optimization

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
US 80 - WB (BAY ST TO STAGECOACH)	SH 307 - Bourne to Coleman	5028004	5028	11600.3	AM	49.7	50	0.99	5.9	0.0	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	SH 307 - Bourne to Coleman	5028004	5028	11600.3	MD	52.3	50	1.05	1.9	0.0	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	SH 307 - Bourne to Coleman	5028004	5028	11600.3	PM	45.4	50	0.91	16.0	1.0	Signal	B		B
US 80 - WB (BAY ST TO STAGECOACH)	Coleman to I-95 NB Ramp	5028005	5028	3267.4	AM	23.6	45	0.52	45.6	31.7	Signal	D	Signal not coordinated with Coleman or Rogers	Coordinate signals between Coleman and Rogers, need to account for Auto Plant
US 80 - WB (BAY ST TO STAGECOACH)	Coleman to I-95 NB Ramp	5028005	5028	3267.4	MD	23.2	45	0.52	46.1	34.5	Signal	D	Signal not coordinated with Coleman or Rogers	Coordinate signals between Coleman and Rogers, need to account for Auto Plant
US 80 - WB (BAY ST TO STAGECOACH)	Coleman to I-95 NB Ramp	5028005	5028	3267.4	PM	26.4	45	0.59	38.4	16.8	Signal	D	Signal not coordinated with Coleman or Rogers	Coordinate signals between Coleman and Rogers, need to account for Auto Plant
US 80 - WB (BAY ST TO STAGECOACH)	I-95 NB Ramp to Parsons	5028006	5028	1235.3	AM	28.2	45	0.63	14.9	5.7	Signal	B		B
US 80 - WB (BAY ST TO STAGECOACH)	I-95 NB Ramp to Parsons	5028006	5028	1235.3	MD	32.9	45	0.73	6.6	0.0	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	I-95 NB Ramp to Parsons	5028006	5028	1235.3	PM	34.4	45	0.77	5.8	0.0	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Parsons to Rogers	5028007	5028	2662	AM	42.3	45	0.94	2.6	0.0	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Parsons to Rogers	5028007	5028	2662	MD	30.8	45	0.68	18.8	3.5	Signal	B		B
US 80 - WB (BAY ST TO STAGECOACH)	Parsons to Rogers	5028007	5028	2662	PM	22.2	45	0.49	44.6	18.0	Signal	D	Poor signal coordination between I-95 and Rogers	Coordinate signals between I-95 and Rogers
US 80 - WB (BAY ST TO STAGECOACH)	Rogers to Begin Split for one way	5028008	5028	2936.9	AM	41.1	35	1.17	0.0	0.0	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Rogers to Begin Split for one way	5028008	5028	2936.9	MD	31.5	35	0.90	17.7	11.0	Signal	B		B
US 80 - WB (BAY ST TO STAGECOACH)	Rogers to Begin Split for one way	5028008	5028	2936.9	PM	35.2	35	1.01	1.2	0.0	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Begin Split for one way to Pooler Pkwy	5028009	5028	3575.8	AM	31.5	35	0.90	15.6	12.3	Cross Street	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Begin Split for one way to Pooler Pkwy	5028009	5028	3575.8	MD	43.0	35	1.23	0.0	0.0	Cross Street	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Begin Split for one way to Pooler Pkwy	5028009	5028	3575.8	PM	31.7	35	0.91	13.7	9.0	Cross Street	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Pooler Pkwy to US 17	5028010	5028	10745.2	AM	46.3	45	1.03	4.4	0.0	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Pooler Pkwy to US 17	5028010	5028	10745.2	MD	48.8	45	1.08	0.0	0.0	Signal	A		A
US 80 - WB (BAY ST TO STAGECOACH)	Pooler Pkwy to US 17	5028010	5028	10745.2	PM	41.7	45	0.93	17.4	0.6	Signal	B		B
US 80 - WB (BAY ST TO STAGECOACH)	US 17 to Jimmy Deloach	5028011	5028	2692.9	AM	48.2	45	1.07	0.7	0.0	Cross Street	A		A
US 80 - WB (BAY ST TO STAGECOACH)	US 17 to Jimmy Deloach	5028011	5028	2692.9	MD	47.6	45	1.06	0.0	0.0	Cross Street	A		A
US 80 - WB (BAY ST TO STAGECOACH)	US 17 to Jimmy Deloach	5028011	5028	2692.9	PM	38.2	45	0.85	7.3	0.0	Cross Street	B		B
US 80 - WB (BAY ST TO STAGECOACH)	Jimmy Deloach to Effingham County	5028012	5028	7829.1	AM	46.3	55	0.84	18.3	0.0	TWSC	C		C
US 80 - WB (BAY ST TO STAGECOACH)	Jimmy Deloach to Effingham County	5028012	5028	7829.1	MD	46.9	55	0.85	16.8	0.0	TWSC	C		C
US 80 - WB (BAY ST TO STAGECOACH)	Jimmy Deloach to Effingham County	5028012	5028	7829.1	PM	39.8	55	0.72	38.6	0.0	TWSC	E	Minor Delays in the PM Period	Priority I - Widen from 2-5 lanes from County Line to Cherry
JIMMY DELOACH - EB	US 80 to Prescott	5029001	5029	6215.1	AM	45.4	55	0.83	36.0	0.0	TWSC	E	No delays observed, just slow start-ups from US 80	No improvements necessary
JIMMY DELOACH - EB	US 80 to Prescott	5029001	5029	6215.1	MD	53.3	55	0.97	4.3	0.0	TWSC	A		A
JIMMY DELOACH - EB	US 80 to Prescott	5029001	5029	6215.1	PM	53.2	55	0.97	5.0	0.0	TWSC	A		A
JIMMY DELOACH - EB	Prescott to Towles	5029002	5029	3379.2	AM	56.6	55	1.03	6.4	4.6	Cross Street	A		A
JIMMY DELOACH - EB	Prescott to Towles	5029002	5029	3379.2	MD	62.2	55	1.13	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Prescott to Towles	5029002	5029	3379.2	PM	64.4	55	1.17	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Towles to Pooler City Limit	5029003	5029	3771.6	AM	63.7	55	1.16	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Towles to Pooler City Limit	5029003	5029	3771.6	MD	60.1	55	1.09	0.1	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Towles to Pooler City Limit	5029003	5029	3771.6	PM	63.9	55	1.16	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Pooler City Limit to Godley	5029004	5029	10395.5	AM	64.2	55	1.17	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Pooler City Limit to Godley	5029004	5029	10395.5	MD	62.8	55	1.14	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Pooler City Limit to Godley	5029004	5029	10395.5	PM	67.0	55	1.22	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Godley to Savannah City Limit	5029005	5029	1529.2	AM	68.0	55	1.24	0.0	0.0	Cross Street	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
JIMMY DELOACH - EB	Godley to Savannah City Limit	5029005	5029	1529.2	MD	62.5	55	1.14	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Godley to Savannah City Limit	5029005	5029	1529.2	PM	68.7	55	1.25	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Savannah City Limit to Jimmy Deloach	5029006	5029	8673.1	AM	60.9	50	1.22	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Savannah City Limit to Jimmy Deloach	5029006	5029	8673.1	MD	60.5	50	1.21	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Savannah City Limit to Jimmy Deloach	5029006	5029	8673.1	PM	63.9	50	1.28	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Jimmy Deloach to Godley	5029007	5029	7361.1	AM	57.2	45	1.27	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Jimmy Deloach to Godley	5029007	5029	7361.1	MD	57.3	45	1.27	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Jimmy Deloach to Godley	5029007	5029	7361.1	PM	54.7	45	1.22	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Godley to SH 21	5029008	5029	3024.3	AM	56.0	45	1.24	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Godley to SH 21	5029008	5029	3024.3	MD	54.6	45	1.21	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	Godley to SH 21	5029008	5029	3024.3	PM	52.2	45	1.16	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - EB	SH 21 to SH 21	5029009	5029	3134.4	AM	29.5	45	0.66	25.9	13.8	Cross Street	C		C
JIMMY DELOACH - EB	SH 21 to SH 21	5029009	5029	3134.4	MD	27.2	45	0.61	29.0	11.5	Cross Street	C		C
JIMMY DELOACH - EB	SH 21 to SH 21	5029009	5029	3134.4	PM	27.2	45	0.61	33.1	9.5	Cross Street	C		C
JIMMY DELOACH - WB	SH 21 to SH 21	5030001	5030	3134.4	AM	36.7	45	0.81	10.8	0.0	Signal	B		B
JIMMY DELOACH - WB	SH 21 to SH 21	5030001	5030	3134.4	MD	35.4	45	0.79	14.2	0.0	Signal	B		B
JIMMY DELOACH - WB	SH 21 to SH 21	5030001	5030	3134.4	PM	35.2	45	0.78	14.9	0.0	Signal	B		B
JIMMY DELOACH - WB	SH 21 to Godley	5030002	5030	3024.3	AM	54.4	45	1.21	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	SH 21 to Godley	5030002	5030	3024.3	MD	55.6	45	1.23	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	SH 21 to Godley	5030002	5030	3024.3	PM	54.8	45	1.22	0.3	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Godley to Jimmy Deloach	5030003	5030	7361.1	AM	55.3	45	1.23	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Godley to Jimmy Deloach	5030003	5030	7361.1	MD	57.5	45	1.28	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Godley to Jimmy Deloach	5030003	5030	7361.1	PM	56.7	45	1.26	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Jimmy Deloach to Savannah City Limit	5030004	5030	8673.2	AM	59.7	50	1.19	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Jimmy Deloach to Savannah City Limit	5030004	5030	8673.2	MD	60.3	50	1.21	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Jimmy Deloach to Savannah City Limit	5030004	5030	8673.2	PM	60.7	50	1.21	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Savannah City Limit to Godley	5030005	5030	1529.1	AM	58.5	55	1.06	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Savannah City Limit to Godley	5030005	5030	1529.1	MD	61.7	55	1.12	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Savannah City Limit to Godley	5030005	5030	1529.1	PM	60.8	55	1.11	0.4	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Godley to Pooler City Limit	5030006	5030	10395.6	AM	62.5	55	1.14	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Godley to Pooler City Limit	5030006	5030	10395.6	MD	62.4	55	1.13	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Godley to Pooler City Limit	5030006	5030	10395.6	PM	63.6	55	1.16	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Pooler City Limit to Towles	5030007	5030	3771.5	AM	59.8	55	1.09	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Pooler City Limit to Towles	5030007	5030	3771.5	MD	60.8	55	1.11	0.5	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Pooler City Limit to Towles	5030007	5030	3771.5	PM	62.1	55	1.13	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Towles to Prescott	5030008	5030	3379.2	AM	65.6	55	1.19	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Towles to Prescott	5030008	5030	3379.2	MD	62.7	55	1.14	0.2	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Towles to Prescott	5030008	5030	3379.2	PM	63.0	55	1.15	0.0	0.0	Cross Street	A		A
JIMMY DELOACH - WB	Prescott to US 80	5030009	5030	6215.1	AM	52.4	55	0.95	4.2	2.5	Cross Street	A		A
JIMMY DELOACH - WB	Prescott to US 80	5030009	5030	6215.1	MD	48.1	55	0.88	13.9	8.8	Cross Street	A		A
JIMMY DELOACH - WB	Prescott to US 80	5030009	5030	6215.1	PM	46.7	55	0.85	21.9	11.0	Cross Street	A		A
MEINHARD/HENRY - EB	Montieth to I-95	5031001	5031	9129.7	AM	45.0	45	1.00	4.3	0.0	Signal	A		A
MEINHARD/HENRY - EB	Montieth to I-95	5031001	5031	9129.7	MD	41.5	45	0.92	25.6	15.5	Signal	C		C
MEINHARD/HENRY - EB	Montieth to I-95	5031001	5031	9129.7	PM	45.2	45	1.00	8.6	0.0	Signal	A		A
MEINHARD/HENRY - EB	I-95 to Hendley	5031002	5031	2794.7	AM	45.9	45	1.02	1.8	0.0	Cross Street	A		A
MEINHARD/HENRY - EB	I-95 to Hendley	5031002	5031	2794.7	MD	49.3	45	1.10	1.6	0.0	Cross Street	A		A
MEINHARD/HENRY - EB	I-95 to Hendley	5031002	5031	2794.7	PM	49.2	45	1.09	0.4	0.0	Cross Street	A		A
MEINHARD/HENRY - EB	Hendley to SH 21	5031003	5031	2684.2	AM	28.4	45	0.63	27.5	6.4	Cross Street	C		C
MEINHARD/HENRY - EB	Hendley to SH 21	5031003	5031	2684.2	MD	33.7	45	0.75	15.0	7.5	Cross Street	C		C
MEINHARD/HENRY - EB	Hendley to SH 21	5031003	5031	2684.2	PM	28.1	45	0.62	27.8	13.4	Cross Street	C		C
MEINHARD/HENRY - WB	SH 21 to Hendley	5032001	5032	2684.2	AM	35.3	45	0.79	11.0	0.3	Signal	B		B
MEINHARD/HENRY - WB	SH 21 to Hendley	5032001	5032	2684.2	MD	41.2	45	0.92	4.8	0.0	Signal	A		A
MEINHARD/HENRY - WB	SH 21 to Hendley	5032001	5032	2684.2	PM	40.2	45	0.89	5.0	0.0	Signal	A		A
MEINHARD/HENRY - WB	Hendley to I-95	5032002	5032	2794.6	AM	42.4	45	0.94	2.7	0.0	Cross Street	A		A
MEINHARD/HENRY - WB	Hendley to I-95	5032002	5032	2794.6	MD	44.9	45	1.00	4.2	0.0	Cross Street	A		A
MEINHARD/HENRY - WB	Hendley to I-95	5032002	5032	2794.6	PM	43.5	45	0.97	3.2	0.0	Cross Street	A		A
MEINHARD/HENRY - WB	I-95 to Montieth	5032003	5032	9129.8	AM	39.9	45	0.89	19.5	11.2	Cross Street	B		B
MEINHARD/HENRY - WB	I-95 to Montieth	5032003	5032	9129.8	MD	49.5	45	1.10	1.0	0.5	Cross Street	A		A
MEINHARD/HENRY - WB	I-95 to Montieth	5032003	5032	9129.8	PM	41.3	45	0.92	14.1	7.7	Cross Street	B		B

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
MONTIETH - EB	Effingham County to Meinhard	5033001	5033	9243.4	AM	54.7	55	0.99	9.4	0.0	Cross Street	A		A
MONTIETH - EB	Effingham County to Meinhard	5033001	5033	9243.4	MD	73.3	55	1.33	0.0	0.0	Cross Street	A		A
MONTIETH - EB	Effingham County to Meinhard	5033001	5033	9243.4	PM	54.5	55	0.99	1.5	0.0	Cross Street	A		A
MONTIETH - EB	Meinhard to SH 21	5033002	5033	10492.4	AM	46.9	55	0.85	22.8	14.5	Signal	C		C
MONTIETH - EB	Meinhard to SH 21	5033002	5033	10492.4	MD	54.4	55	0.99	15.2	13.0	Signal	B		B
MONTIETH - EB	Meinhard to SH 21	5033002	5033	10492.4	PM	51.0	55	0.93	10.5	10.0	Signal	B		B
MONTIETH - WB	SH 21 to Meinhard	5034002	5034	10492.4	AM	47.9	55	0.87	21.2	0.0	TWSC	C		C
MONTIETH - WB	SH 21 to Meinhard	5034002	5034	10492.4	MD	58.7	55	1.07	4.0	0.0	TWSC	A		A
MONTIETH - WB	SH 21 to Meinhard	5034002	5034	10492.4	PM	53.8	55	0.98	8.9	0.0	TWSC	A		A
MONTIETH - WB	Meinhard to Effingham County	5034003	5034	9243.4	AM	61.1	55	1.11	0.0	0.0	Signal	A		A
MONTIETH - WB	Meinhard to Effingham County	5034003	5034	9243.4	MD	59.7	55	1.09	0.0	0.0	Signal	A		A
MONTIETH - WB	Meinhard to Effingham County	5034003	5034	9243.4	PM	55.1	55	1.00	0.2	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Private Drive to Montieth	5035001	5035	14654.4	AM	59.9	55	1.09	0.8	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Private Drive to Montieth	5035001	5035	14654.4	MD	63.6	55	1.16	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Private Drive to Montieth	5035001	5035	14654.4	PM	57.9	55	1.05	2.8	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Montieth to I-95	5035002	5035	2810.7	AM	48.6	45	1.08	1.8	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Montieth to I-95	5035002	5035	2810.7	MD	53.0	45	1.18	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Montieth to I-95	5035002	5035	2810.7	PM	49.0	45	1.09	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	I-95 to O'Leary	5035003	5035	1040.2	AM	19.7	45	0.44	22.0	9.2	Signal	C		C
SH 21/I 516/DERENNE - EB	I-95 to O'Leary	5035003	5035	1040.2	MD	18.0	45	0.40	21.0	9.3	Signal	C		C
SH 21/I 516/DERENNE - EB	I-95 to O'Leary	5035003	5035	1040.2	PM	45.9	45	1.02	0.5	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	O'Leary to Hendley	5035004	5035	741.4	AM	38.6	45	0.86	1.8	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	O'Leary to Hendley	5035004	5035	741.4	MD	38.7	45	0.86	1.6	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	O'Leary to Hendley	5035004	5035	741.4	PM	47.8	45	1.06	1.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Hendley to RR Overpass	5035005	5035	1424.2	AM	49.1	45	1.09	0.2	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Hendley to RR Overpass	5035005	5035	1424.2	MD	54.5	45	1.21	0.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Hendley to RR Overpass	5035005	5035	1424.2	PM	51.4	45	1.14	0.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	RR Overpass to Jimmy Deloach	5035006	5035	7571.9	AM	58.1	45	1.29	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	RR Overpass to Jimmy Deloach	5035006	5035	7571.9	MD	61.2	45	1.36	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	RR Overpass to Jimmy Deloach	5035006	5035	7571.9	PM	59.3	45	1.32	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Jimmy Deloach to Snowy Dixon	5035007	5035	760.9	AM	45.9	55	0.83	3.4	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Jimmy Deloach to Snowy Dixon	5035007	5035	760.9	MD	68.4	55	1.24	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Jimmy Deloach to Snowy Dixon	5035007	5035	760.9	PM	33.0	55	0.60	10.4	5.0	Cross Street	C		C
SH 21/I 516/DERENNE - EB	Snowy Dixon to SH 30	5035008	5035	2857.4	AM	51.3	55	0.93	4.3	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Snowy Dixon to SH 30	5035008	5035	2857.4	MD	60.0	55	1.09	1.4	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Snowy Dixon to SH 30	5035008	5035	2857.4	PM	53.6	55	0.97	0.9	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	SH 30 to Cross Gate	5035009	5035	3013.1	AM	28.1	55	0.51	70.8	31.8	Signal	E	Currently detour due to construction on SR 25	Study next CMS
SH 21/I 516/DERENNE - EB	SH 30 to Cross Gate	5035009	5035	3013.1	MD	23.9	55	0.44	59.4	42.0	Signal	E	Currently detour due to construction on SR 25	Study next CMS
SH 21/I 516/DERENNE - EB	SH 30 to Cross Gate	5035009	5035	3013.1	PM	18.1	55	0.33	84.4	57.0	Signal	F	Currently detour due to construction on SR 25	Study next CMS
SH 21/I 516/DERENNE - EB	Cross Gate to SH 25	5035010	5035	7509.7	AM	29.3	55	0.53	138.1	64.0	Signal	F	Currently detour due to construction on SR 25	Study next CMS
SH 21/I 516/DERENNE - EB	Cross Gate to SH 25	5035010	5035	7509.7	MD	25.2	55	0.46	137.1	44.0	Signal	F	Currently detour due to construction on SR 25	Study next CMS
SH 21/I 516/DERENNE - EB	Cross Gate to SH 25	5035010	5035	7509.7	PM	33.0	55	0.60	72.3	43.0	Signal	E	Currently detour due to construction on SR 25	Study next CMS
SH 21/I 516/DERENNE - EB	SH 25 to Smith	5035011	5035	3445.6	AM	46.9	55	0.85	7.6	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	SH 25 to Smith	5035011	5035	3445.6	MD	44.9	55	0.82	10.4	0.0	Signal	B		B
SH 21/I 516/DERENNE - EB	SH 25 to Smith	5035011	5035	3445.6	PM	46.3	55	0.84	7.9	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Smith to Brampton	5035012	5035	6510.3	AM	39.4	55	0.72	32.5	5.6	Signal	C		C
SH 21/I 516/DERENNE - EB	Smith to Brampton	5035012	5035	6510.3	MD	48.8	55	0.89	11.7	0.0	Signal	B		B
SH 21/I 516/DERENNE - EB	Smith to Brampton	5035012	5035	6510.3	PM	35.6	55	0.65	43.8	24.5	Signal	D	PM Delays for EB	Long Range Plan calls for Widening SH 21, Consider continuous EB intersection operations
SH 21/I 516/DERENNE - EB	Brampton to Minus	5035013	5035	1328.6	AM	23.0	55	0.42	22.9	3.5	Signal	C		C
SH 21/I 516/DERENNE - EB	Brampton to Minus	5035013	5035	1328.6	MD	44.6	55	0.81	4.2	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Brampton to Minus	5035013	5035	1328.6	PM	31.5	55	0.57	14.0	0.0	Signal	B		B
SH 21/I 516/DERENNE - EB	Minus to Bay St	5035014	5035	2143.2	AM	47.5	55	0.86	4.2	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Minus to Bay St	5035014	5035	2143.2	MD	51.5	55	0.94	3.8	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Minus to Bay St	5035014	5035	2143.2	PM	50.4	55	0.92	3.1	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Bay St to Lathrop	5035015	5035	5749.1	AM	58.5	55	1.06	2.6	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Bay St to Lathrop	5035015	5035	5749.1	MD	58.7	55	1.07	0.6	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
SH 21/I 516/DERENNE - EB	Bay St to Lathrop	5035015	5035	5749.1	PM	56.7	55	1.03	0.5	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Lathrop to Augusta	5035016	5035	687.2	AM	57.0	55	1.04	0.5	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Lathrop to Augusta	5035016	5035	687.2	MD	55.8	55	1.02	0.8	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Lathrop to Augusta	5035016	5035	687.2	PM	56.7	55	1.03	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Augusta to Louisville	5035017	5035	1996.2	AM	60.0	55	1.09	0.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Augusta to Louisville	5035017	5035	1996.2	MD	60.8	55	1.11	0.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Augusta to Louisville	5035017	5035	1996.2	PM	56.6	55	1.03	0.1	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Louisville to Gwinnett	5035018	5035	1589.8	AM	60.6	55	1.10	0.2	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Louisville to Gwinnett	5035018	5035	1589.8	MD	60.9	55	1.11	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Louisville to Gwinnett	5035018	5035	1589.8	PM	62.9	55	1.14	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Gwinnett to I-16	5035019	5035	2910.9	AM	63.8	55	1.16	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Gwinnett to I-16	5035019	5035	2910.9	MD	70.8	55	1.29	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Gwinnett to I-16	5035019	5035	2910.9	PM	62.5	55	1.14	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	I-16 to I-16	5035020	5035	583.9	AM	66.0	55	1.20	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	I-16 to I-16	5035020	5035	583.9	MD	66.0	55	1.20	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	I-16 to I-16	5035020	5035	583.9	PM	64.2	55	1.17	0.1	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	I-16 to US 17	5035021	5035	6411.8	AM	62.1	55	1.13	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	I-16 to US 17	5035021	5035	6411.8	MD	65.3	55	1.19	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	I-16 to US 17	5035021	5035	6411.8	PM	63.1	55	1.15	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	US 17 to Veterens Pkwy	5035022	5035	4680	AM	63.9	55	1.16	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	US 17 to Veterens Pkwy	5035022	5035	4680	MD	63.7	55	1.16	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	US 17 to Veterens Pkwy	5035022	5035	4680	PM	60.8	55	1.11	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Veterens Pkwy to Liberty	5035023	5035	1874.7	AM	61.3	55	1.11	0.2	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Veterens Pkwy to Liberty	5035023	5035	1874.7	MD	59.1	55	1.07	0.3	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Veterens Pkwy to Liberty	5035023	5035	1874.7	PM	61.9	55	1.12	0.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Liberty to Montgomery	5035024	5035	8966.9	AM	18.8	54	0.35	218.0	114.0	Cross Street	E	End of Freeway Section, Delays expected	Excessive demand from freeway, delays unavoidable, Consider in E-W Study
SH 21/I 516/DERENNE - EB	Liberty to Montgomery	5035024	5035	8966.9	MD	52.9	54	0.99	3.0	2.5	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Liberty to Montgomery	5035024	5035	8966.9	PM	51.7	54	0.97	17.4	11.0	Cross Street	A		A
SH 21/I 516/DERENNE - EB	Montgomery to Bull	5035025	5035	1374.5	AM	21.0	40	0.53	60.1	39.0	Signal	E	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
SH 21/I 516/DERENNE - EB	Montgomery to Bull	5035025	5035	1374.5	MD	15.2	40	0.38	69.4	48.7	Signal	E	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
SH 21/I 516/DERENNE - EB	Montgomery to Bull	5035025	5035	1374.5	PM	6.0	40	0.15	140.9	103.0	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
SH 21/I 516/DERENNE - EB	Bull to Abercorn	5035026	5035	869.4	AM	5.5	40	0.14	98.6	72.0	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
SH 21/I 516/DERENNE - EB	Bull to Abercorn	5035026	5035	869.4	MD	8.6	40	0.21	81.8	61.7	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
SH 21/I 516/DERENNE - EB	Bull to Abercorn	5035026	5035	869.4	PM	28.1	40	0.70	6.5	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Abercorn to Habersham	5035027	5035	733.1	AM	27.6	40	0.69	8.1	0.7	Signal	A		A
SH 21/I 516/DERENNE - EB	Abercorn to Habersham	5035027	5035	733.1	MD	10.9	40	0.27	70.4	54.0	Signal	E	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
SH 21/I 516/DERENNE - EB	Abercorn to Habersham	5035027	5035	733.1	PM	4.7	40	0.12	94.0	74.5	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
SH 21/I 516/DERENNE - EB	Habersham to Reynolds	5035028	5035	1275.5	AM	23.7	40	0.59	17.7	5.5	Signal	B		B
SH 21/I 516/DERENNE - EB	Habersham to Reynolds	5035028	5035	1275.5	MD	37.6	40	0.94	2.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Habersham to Reynolds	5035028	5035	1275.5	PM	35.4	40	0.89	2.8	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Reynolds to Paulsen	5035029	5035	1337.4	AM	35.7	40	0.89	3.1	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Reynolds to Paulsen	5035029	5035	1337.4	MD	43.6	40	1.09	1.3	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Reynolds to Paulsen	5035029	5035	1337.4	PM	32.6	40	0.82	7.7	2.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Paulsen to Waters	5035030	5035	1059	AM	22.6	40	0.57	50.1	39.5	Signal	D	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
SH 21/I 516/DERENNE - EB	Paulsen to Waters	5035030	5035	1059	MD	33.1	40	0.83	6.9	0.8	Signal	A		A
SH 21/I 516/DERENNE - EB	Paulsen to Waters	5035030	5035	1059	PM	8.2	40	0.20	91.5	70.0	Signal	F	Signal Timing	Once traffic is metered through Montgomery, signals should be coordinated for progression, Consider in E-W Study
SH 21/I 516/DERENNE - EB	Waters to Harry Truman SB Ramp	5035031	5035	1925.4	AM	33.6	40	0.84	8.0	2.5	Signal	A		A
SH 21/I 516/DERENNE - EB	Waters to Harry Truman SB Ramp	5035031	5035	1925.4	MD	35.0	40	0.88	8.7	3.5	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
SH 21/I 516/DERENNE - EB	Waters to Harry Truman SB Ramp	5035031	5035	1925.4	PM	28.7	40	0.72	17.7	8.8	Signal	B		B
SH 21/I 516/DERENNE - EB	Harry Truman SB Ramp to Harry Truman NB Ramp	5035032	5035	295.7	AM	35.7	40	0.89	1.3	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Harry Truman SB Ramp to Harry Truman NB Ramp	5035032	5035	295.7	MD	39.1	40	0.98	1.2	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Harry Truman SB Ramp to Harry Truman NB Ramp	5035032	5035	295.7	PM	33.3	40	0.83	0.6	0.0	Signal	A		A
SH 21/I 516/DERENNE - EB	Harry Truman NB Ramp to Skidaway	5035033	5035	4129.1	AM	29.3	40	0.73	33.9	14.8	Signal	C		C
SH 21/I 516/DERENNE - EB	Harry Truman NB Ramp to Skidaway	5035033	5035	4129.1	MD	27.0	40	0.68	36.4	30.5	Signal	D	Delays throughout DeRenne Corridor	Consider in the E-W Study
SH 21/I 516/DERENNE - EB	Harry Truman NB Ramp to Skidaway	5035033	5035	4129.1	PM	28.5	40	0.71	34.7	24.0	Signal	C		C
SH 21/I 516/DERENNE - EB	Skidaway to La Roche	5035034	5035	2702.5	AM	23.9	40	0.60	32.1	13.0	Signal	C		C
SH 21/I 516/DERENNE - EB	Skidaway to La Roche	5035034	5035	2702.5	MD	23.3	40	0.58	34.5	18.8	Signal	C		C
SH 21/I 516/DERENNE - EB	Skidaway to La Roche	5035034	5035	2702.5	PM	23.6	40	0.59	36.4	15.3	Signal	D	Sufficient Capacity for turning movements	Consider widening to match section to West
SH 21/I 516/DERENNE - WB	La Roche to Skidaway	5036002	5036	2702.4	AM	17.8	32	0.56	65.7	45.4	Signal	E	1 lane section, long delays at Skidaway	Consider widening approach to provide 2 thru lanes to match west side of int
SH 21/I 516/DERENNE - WB	La Roche to Skidaway	5036002	5036	2702.4	MD	23.3	40	0.58	39.8	26.3	Signal	D	1 lane section, long delays at Skidaway	Consider widening approach to provide 2 thru lanes to match west side of int
SH 21/I 516/DERENNE - WB	La Roche to Skidaway	5036002	5036	2702.4	PM	19.2	40	0.48	53.6	31.7	Signal	D	1 lane section, long delays at Skidaway	Consider widening approach to provide 2 thru lanes to match west side of int
SH 21/I 516/DERENNE - WB	Skidaway to Harry Truman NB Ramp	5036003	5036	4129.1	AM	30.8	40	0.77	26.1	5.6	Signal	C		C
SH 21/I 516/DERENNE - WB	Skidaway to Harry Truman NB Ramp	5036003	5036	4129.1	MD	40.1	40	1.00	5.1	3.5	Signal	A		A
SH 21/I 516/DERENNE - WB	Skidaway to Harry Truman NB Ramp	5036003	5036	4129.1	PM	29.7	40	0.74	29.2	12.0	Signal	C		C
SH 21/I 516/DERENNE - WB	Harry Truman NB Ramp to Harry Truman SB Ramp	5036004	5036	295.7	AM	31.7	40	0.79	1.6	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Harry Truman NB Ramp to Harry Truman SB Ramp	5036004	5036	295.7	MD	40.5	40	1.01	0.9	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Harry Truman NB Ramp to Harry Truman SB Ramp	5036004	5036	295.7	PM	28.1	40	0.70	2.2	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Harry Truman SB Ramp to Waters	5036005	5036	1925.4	AM	24.9	40	0.62	27.4	13.2	Signal	C		C
SH 21/I 516/DERENNE - WB	Harry Truman SB Ramp to Waters	5036005	5036	1925.4	MD	23.2	40	0.58	33.4	23.6	Signal	C		C
SH 21/I 516/DERENNE - WB	Harry Truman SB Ramp to Waters	5036005	5036	1925.4	PM	14.0	40	0.35	68.7	50.7	Signal	E	PM WB needs progression from Truman to Bull	Coordinate signal timing for outbound PM traffic through Bull, Consider in E-W Study
SH 21/I 516/DERENNE - WB	Waters to Paulsen	5036006	5036	1059.1	AM	40.1	40	1.00	1.6	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Waters to Paulsen	5036006	5036	1059.1	MD	24.7	40	0.62	21.0	11.8	Signal	C		C
SH 21/I 516/DERENNE - WB	Waters to Paulsen	5036006	5036	1059.1	PM	34.0	40	0.85	3.4	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Paulsen to Reynolds	5036007	5036	1337.4	AM	29.7	40	0.74	11.5	4.2	Signal	B		B
SH 21/I 516/DERENNE - WB	Paulsen to Reynolds	5036007	5036	1337.4	MD	31.1	40	0.78	9.6	3.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Paulsen to Reynolds	5036007	5036	1337.4	PM	24.9	40	0.62	18.5	6.3	Signal	B		B
SH 21/I 516/DERENNE - WB	Reynolds to Habersham	5036008	5036	1275.4	AM	26.4	40	0.66	21.3	8.3	Signal	C		C
SH 21/I 516/DERENNE - WB	Reynolds to Habersham	5036008	5036	1275.4	MD	28.0	40	0.70	11.4	1.6	Signal	B		B
SH 21/I 516/DERENNE - WB	Reynolds to Habersham	5036008	5036	1275.4	PM	10.8	40	0.27	75.7	44.0	Signal	E	PM WB needs progression from Truman to Bull	Coordinate signal timing for outbound PM traffic through Bull
SH 21/I 516/DERENNE - WB	Habersham to Abercorn	5036009	5036	733.1	AM	32.5	40	0.81	4.4	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Habersham to Abercorn	5036009	5036	733.1	MD	21.7	40	0.54	12.2	1.2	Signal	B		B
SH 21/I 516/DERENNE - WB	Habersham to Abercorn	5036009	5036	733.1	PM	14.0	40	0.35	28.1	7.3	Signal	C		C
SH 21/I 516/DERENNE - WB	Abercorn to Bull	5036010	5036	869.4	AM	26.6	40	0.66	9.1	0.8	Signal	A		A
SH 21/I 516/DERENNE - WB	Abercorn to Bull	5036010	5036	869.4	MD	28.1	40	0.70	9.7	2.8	Signal	A		A
SH 21/I 516/DERENNE - WB	Abercorn to Bull	5036010	5036	869.4	PM	31.4	40	0.78	3.1	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Bull to Montgomery	5036011	5036	1374.5	AM	29.7	40	0.74	7.9	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Bull to Montgomery	5036011	5036	1374.5	MD	32.2	40	0.81	6.6	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Bull to Montgomery	5036011	5036	1374.5	PM	30.3	40	0.76	8.2	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Montgomery to Liberty	5036012	5036	8967	AM	55.9	54	1.05	0.6	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Montgomery to Liberty	5036012	5036	8967	MD	56.3	54	1.05	0.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Montgomery to Liberty	5036012	5036	8967	PM	53.8	54	1.01	4.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Liberty to Veterens Pkwy	5036013	5036	1874.6	AM	58.3	55	1.06	0.2	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Liberty to Veterens Pkwy	5036013	5036	1874.6	MD	65.5	55	1.19	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Liberty to Veterens Pkwy	5036013	5036	1874.6	PM	62.0	55	1.13	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Veterens Pkwy to US 17	5036014	5036	4680.1	AM	62.6	55	1.14	0.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Veterens Pkwy to US 17	5036014	5036	4680.1	MD	71.3	55	1.30	0.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Veterens Pkwy to US 17	5036014	5036	4680.1	PM	62.7	55	1.14	0.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	US 17 to I-16	5036015	5036	6411.8	AM	63.1	55	1.15	0.0	0.0	Cross Street	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
SH 21/I 516/DERENNE - WB	US 17 to I-16	5036015	5036	6411.8	MD	47.8	55	0.87	25.5	2.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	US 17 to I-16	5036015	5036	6411.8	PM	57.9	55	1.05	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	I-16 to I-16	5036016	5036	583.8	AM	66.2	55	1.20	0.2	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	I-16 to I-16	5036016	5036	583.8	MD	63.3	55	1.15	0.1	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	I-16 to I-16	5036016	5036	583.8	PM	62.4	55	1.13	0.2	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	I-16 to Gwinnett	5036017	5036	2910.9	AM	61.1	55	1.11	0.1	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	I-16 to Gwinnett	5036017	5036	2910.9	MD	64.4	55	1.17	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	I-16 to Gwinnett	5036017	5036	2910.9	PM	58.5	55	1.06	0.3	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Gwinnett to Louisville	5036018	5036	1589.8	AM	58.6	55	1.06	0.1	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Gwinnett to Louisville	5036018	5036	1589.8	MD	61.3	55	1.12	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Gwinnett to Louisville	5036018	5036	1589.8	PM	63.4	55	1.15	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Louisville to Augusta	5036019	5036	1996.3	AM	59.9	55	1.09	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Louisville to Augusta	5036019	5036	1996.3	MD	65.3	55	1.19	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Louisville to Augusta	5036019	5036	1996.3	PM	61.8	55	1.12	0.2	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Augusta to Lathrop	5036020	5036	687.1	AM	55.8	55	1.01	0.6	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Augusta to Lathrop	5036020	5036	687.1	MD	61.5	55	1.12	0.2	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Augusta to Lathrop	5036020	5036	687.1	PM	58.5	55	1.06	0.1	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Lathrop to Bay St	5036021	5036	5749.1	AM	59.0	55	1.07	0.1	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Lathrop to Bay St	5036021	5036	5749.1	MD	61.1	55	1.11	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Lathrop to Bay St	5036021	5036	5749.1	PM	57.8	55	1.05	2.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Bay St to Minus	5036022	5036	2143.2	AM	24.9	55	0.45	33.7	17.0	Signal	C		C
SH 21/I 516/DERENNE - WB	Bay St to Minus	5036022	5036	2143.2	MD	52.9	55	0.96	1.6	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Bay St to Minus	5036022	5036	2143.2	PM	48.5	55	0.88	3.7	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Minus to Brampton	5036023	5036	1328.6	AM	35.7	55	0.65	8.9	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Minus to Brampton	5036023	5036	1328.6	MD	31.1	55	0.57	20.7	11.8	Signal	C		C
SH 21/I 516/DERENNE - WB	Minus to Brampton	5036023	5036	1328.6	PM	25.9	55	0.47	20.1	3.8	Signal	C		C
SH 21/I 516/DERENNE - WB	Brampton to Smith	5036024	5036	6510.4	AM	43.5	55	0.79	23.2	2.8	Signal	C		C
SH 21/I 516/DERENNE - WB	Brampton to Smith	5036024	5036	6510.4	MD	44.6	55	0.81	19.6	5.5	Signal	B		B
SH 21/I 516/DERENNE - WB	Brampton to Smith	5036024	5036	6510.4	PM	44.0	55	0.80	20.0	0.0	Signal	B		B
SH 21/I 516/DERENNE - WB	Smith to SH 25	5036025	5036	3445.5	AM	47.1	55	0.86	7.5	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Smith to SH 25	5036025	5036	3445.5	MD	24.9	55	0.45	80.3	55.7	Signal	F	Excessive delays due to high truck volumes	Priority IB - Widen 4-6, Heavy midday volumes with Truck traffic - construct storage for trucks
SH 21/I 516/DERENNE - WB	Smith to SH 25	5036025	5036	3445.5	PM	22.8	55	0.41	77.7	34.4	Signal	E	Excessive delays due to high truck volumes	Priority IB - Widen 4-6, Heavy PM volumes with Truck traffic - construct storage for trucks
SH 21/I 516/DERENNE - WB	SH 25 to Cross Gate	5036026	5036	7509.7	AM	45.9	55	0.83	24.3	14.6	Signal	C		C
SH 21/I 516/DERENNE - WB	SH 25 to Cross Gate	5036026	5036	7509.7	MD	44.5	55	0.81	23.1	9.3	Signal	C		C
SH 21/I 516/DERENNE - WB	SH 25 to Cross Gate	5036026	5036	7509.7	PM	26.6	55	0.48	135.5	55.8	Signal	F	Currently under construction on SR 25	Study next CMS
SH 21/I 516/DERENNE - WB	Cross Gate to SH 30	5036027	5036	3013.2	AM	46.7	55	0.85	9.3	3.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Cross Gate to SH 30	5036027	5036	3013.2	MD	46.2	55	0.84	7.2	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Cross Gate to SH 30	5036027	5036	3013.2	PM	35.2	55	0.64	26.7	10.6	Signal	C		C
SH 21/I 516/DERENNE - WB	SH 30 to Snowy Dixon	5036028	5036	2857.3	AM	39.5	55	0.72	18.7	9.3	Signal	B		B
SH 21/I 516/DERENNE - WB	SH 30 to Snowy Dixon	5036028	5036	2857.3	MD	47.9	55	0.87	7.7	2.7	Signal	A		A
SH 21/I 516/DERENNE - WB	SH 30 to Snowy Dixon	5036028	5036	2857.3	PM	44.3	55	0.80	12.2	2.4	Signal	B		B
SH 21/I 516/DERENNE - WB	Snowy Dixon to Jimmy Deloach	5036029	5036	760.9	AM	40.9	55	0.74	3.3	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Snowy Dixon to Jimmy Deloach	5036029	5036	760.9	MD	49.2	55	0.90	1.5	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Snowy Dixon to Jimmy Deloach	5036029	5036	760.9	PM	47.2	55	0.86	1.6	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Jimmy Deloach to RR Overpass	5036030	5036	7571.9	AM	59.6	45	1.32	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Jimmy Deloach to RR Overpass	5036030	5036	7571.9	MD	62.5	45	1.39	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Jimmy Deloach to RR Overpass	5036030	5036	7571.9	PM	54.9	45	1.22	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	RR Overpass to Hendley	5036031	5036	1424.2	AM	55.3	45	1.23	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	RR Overpass to Hendley	5036031	5036	1424.2	MD	60.9	45	1.35	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	RR Overpass to Hendley	5036031	5036	1424.2	PM	46.7	45	1.04	0.4	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Hendley to O'Leary	5036032	5036	741.5	AM	52.8	45	1.17	0.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	Hendley to O'Leary	5036032	5036	741.5	MD	10.1	45	0.22	42.7	27.7	Signal	D	Excessive delays at O'Leary	Optimize timing along corridor for improved operations
SH 21/I 516/DERENNE - WB	Hendley to O'Leary	5036032	5036	741.5	PM	18.2	45	0.40	31.5	19.3	Signal	C		C
SH 21/I 516/DERENNE - WB	O'Leary to I-95	5036033	5036	1040.1	AM	45.6	45	1.01	1.4	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	O'Leary to I-95	5036033	5036	1040.1	MD	38.2	45	0.85	2.6	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	O'Leary to I-95	5036033	5036	1040.1	PM	33.9	45	0.75	4.8	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	I-95 to Montieth	5036034	5036	2810.8	AM	54.1	45	1.20	0.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	I-95 to Montieth	5036034	5036	2810.8	MD	52.3	45	1.16	0.0	0.0	Signal	A		A
SH 21/I 516/DERENNE - WB	I-95 to Montieth	5036034	5036	2810.8	PM	40.9	45	0.91	4.7	1.8	Signal	A		A
SH 21/I 516/DERENNE - WB	Montieth to Private Drive	5036035	5036	14654.3	AM	59.6	55	1.08	0.0	0.0	Cross Street	A		A
SH 21/I 516/DERENNE - WB	Montieth to Private Drive	5036035	5036	14654.3	MD	60.1	55	1.09	0.8	0.0	Cross Street	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
SH 21/I 516/DERENNE - WB	Montieth to Private Drive	5036035	5036	14654.3	PM	54.3	55	0.99	7.6	0.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Burnsed to Main St	5041001	5041	799.2	AM	34.6	35	0.99	0.7	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Burnsed to Main St	5041001	5041	799.2	MD	34.2	35	0.98	0.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Burnsed to Main St	5041001	5041	799.2	PM	29.4	35	0.84	4.2	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Main St to Market	5041002	5041	652.2	AM	35.2	35	1.01	1.8	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Main St to Market	5041002	5041	652.2	MD	34.7	35	0.99	0.7	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Main St to Market	5041002	5041	652.2	PM	18.1	35	0.52	19.1	10.7	Signal	B		B
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Market to Lathrop	5041003	5041	3727.2	AM	42.9	35	1.23	0.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Market to Lathrop	5041003	5041	3727.2	MD	32.7	35	0.93	8.8	12.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Market to Lathrop	5041003	5041	3727.2	PM	40.0	35	1.14	0.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Lathrop to I-516	5041004	5041	397.7	AM	41.7	35	1.19	0.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Lathrop to I-516	5041004	5041	397.7	MD	33.6	35	0.96	0.7	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Lathrop to I-516	5041004	5041	397.7	PM	38.6	35	1.10	0.5	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	I-516 to Graham	5041005	5041	610.4	AM	43.1	35	1.23	0.0	0.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	I-516 to Graham	5041005	5041	610.4	MD	45.4	35	1.30	0.0	0.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	I-516 to Graham	5041005	5041	610.4	PM	43.8	35	1.25	0.0	0.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Graham to Carolan	5041006	5041	3129.8	AM	38.5	34	1.12	2.3	1.2	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Graham to Carolan	5041006	5041	3129.8	MD	32.2	35	0.92	8.3	9.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Graham to Carolan	5041006	5041	3129.8	PM	40.4	35	1.16	0.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Carolan to East Lathrop	5041007	5041	1518.5	AM	20.4	34	0.60	21.4	15.0	Signal	C		C
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Carolan to East Lathrop	5041007	5041	1518.5	MD	16.2	35	0.46	35.9	27.3	Signal	D	Operational Delays	Coordinate signal between Carolan and E. Lathrop
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Carolan to East Lathrop	5041007	5041	1518.5	PM	26.7	35	0.76	10.9	0.7	Signal	B		B
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	East Lathrop to I-16	5041008	5041	2845.3	AM	44.0	40	1.10	0.2	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	East Lathrop to I-16	5041008	5041	2845.3	MD	44.9	40	1.12	0.0	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	East Lathrop to I-16	5041008	5041	2845.3	PM	41.6	40	1.04	0.3	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	I-16 to Fahm	5041009	5041	1078	AM	35.9	40	0.90	3.1	1.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	I-16 to Fahm	5041009	5041	1078	MD	38.6	40	0.96	0.7	0.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	I-16 to Fahm	5041009	5041	1078	PM	41.2	40	1.03	0.5	0.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Fahm to MLK	5041010	5041	966.2	AM	20.6	40	0.51	25.0	16.0	Signal	C		C
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Fahm to MLK	5041010	5041	966.2	MD	31.5	40	0.79	4.8	1.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Fahm to MLK	5041010	5041	966.2	PM	35.9	40	0.90	2.1	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	MLK to Montgomery	5041011	5041	327.8	AM	16.2	40	0.40	13.6	7.0	Signal	B		B
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	MLK to Montgomery	5041011	5041	327.8	MD	24.1	40	0.60	3.4	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	MLK to Montgomery	5041011	5041	327.8	PM	27.8	40	0.69	2.2	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Montgomery to Barnard	5041012	5041	668.4	AM	30.7	40	0.77	3.5	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Montgomery to Barnard	5041012	5041	668.4	MD	26.2	40	0.65	6.6	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Montgomery to Barnard	5041012	5041	668.4	PM	26.4	40	0.66	5.9	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Barnard to Whitaker	5041013	5041	373.8	AM	34.5	40	0.86	1.4	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Barnard to Whitaker	5041013	5041	373.8	MD	28.4	40	0.71	3.1	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Barnard to Whitaker	5041013	5041	373.8	PM	22.7	40	0.57	5.7	0.7	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Whitaker to Bull	5041014	5041	353.5	AM	34.6	40	0.87	1.2	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Whitaker to Bull	5041014	5041	353.5	MD	13.5	40	0.34	13.1	5.7	Signal	B		B
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Whitaker to Bull	5041014	5041	353.5	PM	20.5	40	0.51	5.7	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Bull to Drayton	5041015	5041	364.5	AM	25.9	40	0.65	7.5	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Bull to Drayton	5041015	5041	364.5	MD	24.5	40	0.61	4.6	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Bull to Drayton	5041015	5041	364.5	PM	23.7	40	0.59	3.8	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Drayton to Abercorn	5041016	5041	346.7	AM	31.4	40	0.79	2.1	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Drayton to Abercorn	5041016	5041	346.7	MD	26.5	40	0.66	2.8	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Drayton to Abercorn	5041016	5041	346.7	PM	24.6	40	0.61	2.9	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Abercorn to Lincoln	5041017	5041	409.5	AM	34.1	40	0.85	1.3	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Abercorn to Lincoln	5041017	5041	409.5	MD	29.1	40	0.73	2.7	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Abercorn to Lincoln	5041017	5041	409.5	PM	29.3	40	0.73	2.6	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Lincoln to Price	5041018	5041	594.7	AM	33.7	40	0.84	2.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Lincoln to Price	5041018	5041	594.7	MD	30.0	40	0.75	3.2	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Lincoln to Price	5041018	5041	594.7	PM	30.2	40	0.75	3.8	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Price to Houston	5041019	5041	301.4	AM	35.4	40	0.89	1.1	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Price to Houston	5041019	5041	301.4	MD	32.0	40	0.80	1.3	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Price to Houston	5041019	5041	301.4	PM	27.4	40	0.69	2.3	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Houston to East Broad St	5041020	5041	346.7	AM	33.7	40	0.84	1.5	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Houston to East Broad St	5041020	5041	346.7	MD	29.6	40	0.74	2.8	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Houston to East Broad St	5041020	5041	346.7	PM	24.9	40	0.62	3.6	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	East Broad St to President	5041021	5041	1850.7	AM	21.6	40	0.54	27.6	8.7	Signal	C		C
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	East Broad St to President	5041021	5041	1850.7	MD	23.6	40	0.59	23.8	4.0	Signal	C		C
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	East Broad St to President	5041021	5041	1850.7	PM	17.8	40	0.44	42.1	17.5	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	President to Veterens Pkwy	5041022	5041	1899.1	AM	40.0	40	1.00	0.8	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	President to Veterens Pkwy	5041022	5041	1899.1	MD	44.6	40	1.11	0.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	President to Veterens Pkwy	5041022	5041	1899.1	PM	32.3	40	0.81	15.7	2.8	Signal	B		B
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Veterens Pkwy to Veterens Pkwy	5041023	5041	1142.9	AM	48.2	40	1.21	0.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Veterens Pkwy to Veterens Pkwy	5041023	5041	1142.9	MD	45.5	40	1.14	0.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Veterens Pkwy to Veterens Pkwy	5041023	5041	1142.9	PM	25.7	40	0.64	18.1	10.0	Signal	B		B

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Veterens Pkwy to Pennsylvania	5041024	5041	4470.3	AM	43.2	50	0.86	9.9	6.7	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Veterens Pkwy to Pennsylvania	5041024	5041	4470.3	MD	46.0	50	0.92	5.3	0.7	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Veterens Pkwy to Pennsylvania	5041024	5041	4470.3	PM	39.0	50	0.78	19.6	4.8	Signal	B		B
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Pennsylvania to Richardson Creek	5041025	5041	15767.2	AM	54.6	50	1.09	0.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Pennsylvania to Richardson Creek	5041025	5041	15767.2	MD	54.2	50	1.08	0.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Pennsylvania to Richardson Creek	5041025	5041	15767.2	PM	55.3	50	1.11	4.1	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Richardson Creek to US 80	5041026	5041	3692	AM	58.1	50	1.16	0.0	0.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Richardson Creek to US 80	5041026	5041	3692	MD	56.4	50	1.13	0.0	0.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - EB	Richardson Creek to US 80	5041026	5041	3692	PM	59.6	50	1.19	0.6	0.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	US 80 to Richardson Creek	5042001	5042	4975.8	AM	53.5	50	1.07	0.0	0.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	US 80 to Richardson Creek	5042001	5042	4975.8	MD	54.3	50	1.09	0.0	0.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	US 80 to Richardson Creek	5042001	5042	4975.8	PM	60.8	50	1.22	0.0	0.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Richardson Creek to Pennsylvania	5042002	5042	15767.3	AM	48.3	50	0.97	12.5	15.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Richardson Creek to Pennsylvania	5042002	5042	15767.3	MD	60.1	50	1.20	0.0	0.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Richardson Creek to Pennsylvania	5042002	5042	15767.3	PM	55.1	50	1.10	0.6	3.6	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Pennsylvania to Veterens Pkwy	5042003	5042	4470.2	AM	44.9	50	0.90	6.9	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Pennsylvania to Veterens Pkwy	5042003	5042	4470.2	MD	44.5	50	0.89	8.9	4.7	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Pennsylvania to Veterens Pkwy	5042003	5042	4470.2	PM	49.6	50	0.99	4.4	1.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Veterens Pkwy to Veterens Pkwy	5042004	5042	1143	AM	31.6	40	0.79	9.1	2.8	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Veterens Pkwy to Veterens Pkwy	5042004	5042	1143	MD	37.9	40	0.95	1.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Veterens Pkwy to Veterens Pkwy	5042004	5042	1143	PM	45.4	40	1.13	0.2	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Veterens Pkwy to President	5042005	5042	1899	AM	32.7	40	0.82	7.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Veterens Pkwy to President	5042005	5042	1899	MD	38.8	40	0.97	2.0	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Veterens Pkwy to President	5042005	5042	1899	PM	35.2	40	0.88	4.4	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	President to East Broad St	5042006	5042	1850.7	AM	22.3	40	0.56	25.7	0.0	Signal	C		C
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	President to East Broad St	5042006	5042	1850.7	MD	31.7	40	0.79	8.2	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	President to East Broad St	5042006	5042	1850.7	PM	27.0	40	0.68	14.6	0.0	Signal	B		B
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	East Broad St to Houston	5042007	5042	346.8	AM	28.8	40	0.72	2.2	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	East Broad St to Houston	5042007	5042	346.8	MD	30.0	40	0.75	1.2	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	East Broad St to Houston	5042007	5042	346.8	PM	23.9	40	0.60	6.6	1.6	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Houston to Price	5042008	5042	301.3	AM	33.3	40	0.83	1.3	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Houston to Price	5042008	5042	301.3	MD	35.1	40	0.88	0.4	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Houston to Price	5042008	5042	301.3	PM	29.7	40	0.74	1.2	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Price to Lincoln	5042009	5042	594.7	AM	33.6	40	0.84	1.7	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Price to Lincoln	5042009	5042	594.7	MD	34.7	40	0.87	1.9	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Price to Lincoln	5042009	5042	594.7	PM	25.1	40	0.63	8.3	1.2	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Lincoln to Abercorn	5042010	5042	409.5	AM	32.8	40	0.82	1.9	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Lincoln to Abercorn	5042010	5042	409.5	MD	33.8	40	0.84	1.7	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Lincoln to Abercorn	5042010	5042	409.5	PM	25.1	40	0.63	4.9	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Abercorn to Drayton	5042011	5042	346.8	AM	32.7	40	0.82	0.8	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Abercorn to Drayton	5042011	5042	346.8	MD	33.1	40	0.83	1.4	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Abercorn to Drayton	5042011	5042	346.8	PM	27.9	40	0.70	2.5	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Drayton to Bull	5042012	5042	364.4	AM	31.0	40	0.78	2.4	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Drayton to Bull	5042012	5042	364.4	MD	26.2	40	0.66	2.9	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Drayton to Bull	5042012	5042	364.4	PM	27.4	40	0.68	1.9	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Bull to Whitaker	5042013	5042	353.5	AM	33.4	40	0.84	1.3	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Bull to Whitaker	5042013	5042	353.5	MD	31.5	40	0.79	2.7	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Bull to Whitaker	5042013	5042	353.5	PM	20.4	40	0.51	6.4	1.2	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Whitaker to Barnard	5042014	5042	373.8	AM	30.4	40	0.76	2.2	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Whitaker to Barnard	5042014	5042	373.8	MD	32.1	40	0.80	1.9	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Whitaker to Barnard	5042014	5042	373.8	PM	28.0	40	0.70	4.6	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Barnard to Montgomery	5042015	5042	668.5	AM	25.3	40	0.63	9.8	2.3	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Barnard to Montgomery	5042015	5042	668.5	MD	31.8	40	0.80	2.6	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Barnard to Montgomery	5042015	5042	668.5	PM	26.6	40	0.67	6.3	0.2	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Montgomery to MLK	5042016	5042	327.7	AM	28.3	40	0.71	1.8	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Montgomery to MLK	5042016	5042	327.7	MD	15.7	40	0.39	22.6	16.7	Signal	C		C
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Montgomery to MLK	5042016	5042	327.7	PM	29.6	40	0.74	2.3	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	MLK to Fahm	5042017	5042	966.3	AM	32.5	40	0.81	3.8	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	MLK to Fahm	5042017	5042	966.3	MD	38.4	40	0.96	1.6	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	MLK to Fahm	5042017	5042	966.3	PM	27.8	40	0.70	13.4	4.2	Signal	B		B
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Fahm to I-16	5042018	5042	1078	AM	39.3	40	0.98	0.9	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Fahm to I-16	5042018	5042	1078	MD	52.1	40	1.30	0.2	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Fahm to I-16	5042018	5042	1078	PM	41.5	40	1.04	1.3	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	I-16 to East Lathrop	5042019	5042	2845.3	AM	39.6	40	0.99	9.4	6.8	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	I-16 to East Lathrop	5042019	5042	2845.3	MD	42.8	40	1.07	4.6	6.0	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	I-16 to East Lathrop	5042019	5042	2845.3	PM	44.6	40	1.11	3.4	2.4	Cross Street	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	East Lathrop to Carolan	5042020	5042	1518.4	AM	33.4	35	0.96	4.8	1.1	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	East Lathrop to Carolan	5042020	5042	1518.4	MD	30.1	35	0.86	7.3	2.6	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	East Lathrop to Carolan	5042020	5042	1518.4	PM	34.7	35	0.99	2.0	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Carolan to Graham	5042021	5042	3129.8	AM	35.4	35	1.01	7.1	2.8	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Carolan to Graham	5042021	5042	3129.8	MD	34.8	35	1.00	5.3	4.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Carolan to Graham	5042021	5042	3129.8	PM	39.1	35	1.12	0.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Graham to I-516	5042022	5042	610.4	AM	30.9	35	0.88	1.6	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Graham to I-516	5042022	5042	610.4	MD	42.7	35	1.22	0.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Graham to I-516	5042022	5042	610.4	PM	39.5	35	1.13	0.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	I-516 to Lathrop	5042023	5042	397.7	AM	10.3	35	0.29	26.0	15.7	Cross Street	E	Closely spaced signals between Graham and Lathrop	Coordinate signals between Graham and Lathrop
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	I-516 to Lathrop	5042023	5042	397.7	MD	17.9	35	0.51	25.1	18.0	Cross Street	D	Closely spaced signals between Graham and Lathrop	Coordinate signals between Graham and Lathrop
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	I-516 to Lathrop	5042023	5042	397.7	PM	15.9	35	0.45	20.2	13.0	Cross Street	D	Closely spaced signals between Graham and Lathrop	Coordinate signals between Graham and Lathrop
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Lathrop to Market	5042024	5042	3727.2	AM	34.3	35	0.98	7.6	5.4	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Lathrop to Market	5042024	5042	3727.2	MD	39.6	35	1.13	0.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Lathrop to Market	5042024	5042	3727.2	PM	34.7	35	0.99	3.3	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Market to Main St	5042025	5042	652.2	AM	31.4	35	0.90	3.0	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Market to Main St	5042025	5042	652.2	MD	18.9	35	0.54	14.4	6.3	Signal	B		B
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Market to Main St	5042025	5042	652.2	PM	33.8	35	0.97	1.5	0.0	Signal	A		A
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Main St to Burnsed	5042026	5042	799.2	AM	13.6	35	0.39	42.5	31.8	Signal	D	Closely spaced signals and RR crossing	Coordinate signals between Burnsed and Market
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Main St to Burnsed	5042026	5042	799.2	MD	11.0	35	0.31	34.3	19.0	Signal	C		C
BAY ST/GEN MC INTOSH/PRESIDENT/ISLAND EXPWY - WB	Main St to Burnsed	5042026	5042	799.2	PM	21.5	35	0.61	19.1	10.7	Signal	B		B
ROGERS/QUACCO - NB	US 17 to Holiday	5045001	5045	5523.5	AM	40.6	40	1.01	3.9	1.7	Signal	A		A
ROGERS/QUACCO - NB	US 17 to Holiday	5045001	5045	5523.5	MD	42.9	40	1.07	0.5	0.0	Signal	A		A
ROGERS/QUACCO - NB	US 17 to Holiday	5045001	5045	5523.5	PM	44.1	40	1.10	2.4	0.0	Signal	A		A
ROGERS/QUACCO - NB	Holiday to I-95	5045002	5045	8330.3	AM	42.9	43	0.99	20.9	9.2	Cross Street	A		A
ROGERS/QUACCO - NB	Holiday to I-95	5045002	5045	8330.3	MD	47.9	43	1.11	1.0	0.0	Cross Street	A		A
ROGERS/QUACCO - NB	Holiday to I-95	5045002	5045	8330.3	PM	46.4	43	1.07	0.7	0.0	Cross Street	A		A
ROGERS/QUACCO - NB	I-95 to Pooler City Limit	5045003	5045	7161	AM	48.5	50	0.97	9.1	0.0	Cross Street	A		A
ROGERS/QUACCO - NB	I-95 to Pooler City Limit	5045003	5045	7161	MD	51.1	50	1.02	1.6	0.0	Cross Street	A		A
ROGERS/QUACCO - NB	I-95 to Pooler City Limit	5045003	5045	7161	PM	51.6	50	1.03	4.0	0.0	Cross Street	A		A
ROGERS/QUACCO - NB	Pooler City Limit to Pooler City Limit	5045004	5045	1615.3	AM	53.3	45	1.18	0.3	0.0	Cross Street	A		A
ROGERS/QUACCO - NB	Pooler City Limit to Pooler City Limit	5045004	5045	1615.3	MD	51.1	45	1.14	0.0	0.0	Cross Street	A		A
ROGERS/QUACCO - NB	Pooler City Limit to Pooler City Limit	5045004	5045	1615.3	PM	57.4	45	1.28	0.0	0.0	Cross Street	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ROGERS/QUACCO - NB	Pooler City Limit to Canal Bank Rd	5045005	5045	2699.3	AM	53.3	45	1.19	0.7	0.0	City Limit	A		A
ROGERS/QUACCO - NB	Pooler City Limit to Canal Bank Rd	5045005	5045	2699.3	MD	52.7	45	1.17	0.0	0.0	City Limit	A		A
ROGERS/QUACCO - NB	Pooler City Limit to Canal Bank Rd	5045005	5045	2699.3	PM	53.2	45	1.18	0.0	0.0	City Limit	A		A
ROGERS/QUACCO - NB	Canal Bank Rd to Savannah Quarters	5045006	5045	2799.1	AM	52.4	45	1.16	0.3	0.0	Cross Street	A		A
ROGERS/QUACCO - NB	Canal Bank Rd to Savannah Quarters	5045006	5045	2799.1	MD	50.3	45	1.12	0.0	0.0	Cross Street	A		A
ROGERS/QUACCO - NB	Canal Bank Rd to Savannah Quarters	5045006	5045	2799.1	PM	53.3	45	1.18	0.0	0.0	Cross Street	A		A
ROGERS/QUACCO - NB	Savannah Quarters to I-16	5045007	5045	2347.6	AM	54.7	45	1.21	0.0	0.0	Cross Street	A		A
ROGERS/QUACCO - NB	Savannah Quarters to I-16	5045007	5045	2347.6	MD	50.0	45	1.11	0.0	0.0	Cross Street	A		A
ROGERS/QUACCO - NB	Savannah Quarters to I-16	5045007	5045	2347.6	PM	54.7	45	1.22	0.0	0.0	Cross Street	A		A
ROGERS/QUACCO - NB	I-16 to Quacco / Pine Barren	5045008	5045	5291.6	AM	50.7	45	1.13	4.2	2.0	Cross Street	A		A
ROGERS/QUACCO - NB	I-16 to Quacco / Pine Barren	5045008	5045	5291.6	MD	47.6	45	1.06	3.3	0.6	Cross Street	A		A
ROGERS/QUACCO - NB	I-16 to Quacco / Pine Barren	5045008	5045	5291.6	PM	52.0	45	1.16	0.4	0.0	Cross Street	A		A
ROGERS/QUACCO - NB	Quacco / Pine Barren to Pine Barren	5045009	5045	5038.7	AM	36.8	45	0.82	17.5	0.5	Signal	B		B
ROGERS/QUACCO - NB	Quacco / Pine Barren to Pine Barren	5045009	5045	5038.7	MD	44.0	45	0.98	2.8	0.0	Signal	A		A
ROGERS/QUACCO - NB	Quacco / Pine Barren to Pine Barren	5045009	5045	5038.7	PM	43.7	45	0.97	8.7	0.0	Signal	A		A
ROGERS/QUACCO - NB	Pine Barren to US 80 EB	5045010	5045	8502.8	AM	26.6	39	0.68	73.4	66.0	TWSC	F	Short Distance between US 80 E/W	Signal Operations - Coordinate signals between US 80 E/W
ROGERS/QUACCO - NB	Pine Barren to US 80 EB	5045010	5045	8502.8	MD	24.8	39	0.63	94.3	80.5	TWSC	F	Short Distance between US 80 E/W	Signal Operations - Coordinate signals between US 80 E/W
ROGERS/QUACCO - NB	Pine Barren to US 80 EB	5045010	5045	8502.8	PM	23.5	39	0.60	102.0	79.8	TWSC	F	Short Distance between US 80 E/W	Signal Operations - Coordinate signals between US 80 E/W
ROGERS/QUACCO - NB	US 80 EB to US 80 WB	5045011	5045	386.7	AM	20.4	35	0.58	5.7	0.0	Signal	A		A
ROGERS/QUACCO - NB	US 80 EB to US 80 WB	5045011	5045	386.7	MD	22.8	35	0.65	3.5	0.0	Signal	A		A
ROGERS/QUACCO - NB	US 80 EB to US 80 WB	5045011	5045	386.7	PM	18.8	35	0.54	6.6	0.5	Signal	A		A
ROGERS/QUACCO - SB	US 80 WB to US 80 EB	5046002	5046	386.7	AM	12.4	35	0.35	16.5	7.0	Signal	B		B
ROGERS/QUACCO - SB	US 80 WB to US 80 EB	5046002	5046	386.7	MD	12.6	35	0.36	18.9	9.5	Signal	B		B
ROGERS/QUACCO - SB	US 80 WB to US 80 EB	5046002	5046	386.7	PM	8.1	35	0.23	29.8	13.3	Signal	C		C
ROGERS/QUACCO - SB	US 80 EB to Pine Barren	5046003	5046	8502.8	AM	32.5	39	0.83	31.2	6.3	Signal	C		C
ROGERS/QUACCO - SB	US 80 EB to Pine Barren	5046003	5046	8502.8	MD	36.5	39	0.93	13.4	0.5	Signal	B		B
ROGERS/QUACCO - SB	US 80 EB to Pine Barren	5046003	5046	8502.8	PM	37.7	39	0.96	8.8	0.5	Signal	A		A
ROGERS/QUACCO - SB	Pine Barren to Quacco / Pine Barren	5046004	5046	5038.7	AM	34.1	45	0.76	24.6	3.3	TWSC	C		C
ROGERS/QUACCO - SB	Pine Barren to Quacco / Pine Barren	5046004	5046	5038.7	MD	38.8	45	0.86	14.0	0.0	TWSC	B		B
ROGERS/QUACCO - SB	Pine Barren to Quacco / Pine Barren	5046004	5046	5038.7	PM	44.5	45	0.99	3.9	0.0	TWSC	A		A
ROGERS/QUACCO - SB	Quacco / Pine Barren to I-16	5046005	5046	5291.6	AM	47.9	45	1.06	0.5	0.0	Signal	A		A
ROGERS/QUACCO - SB	Quacco / Pine Barren to I-16	5046005	5046	5291.6	MD	45.1	45	1.00	3.8	0.0	Signal	A		A
ROGERS/QUACCO - SB	Quacco / Pine Barren to I-16	5046005	5046	5291.6	PM	53.8	45	1.20	0.6	0.0	Signal	A		A
ROGERS/QUACCO - SB	I-16 to Savannah Quarters	5046006	5046	2347.6	AM	51.6	45	1.15	0.0	0.0	Cross Street	A		A
ROGERS/QUACCO - SB	I-16 to Savannah Quarters	5046006	5046	2347.6	MD	49.3	45	1.10	0.1	0.0	Cross Street	A		A
ROGERS/QUACCO - SB	I-16 to Savannah Quarters	5046006	5046	2347.6	PM	57.6	45	1.28	0.0	0.0	Cross Street	A		A
ROGERS/QUACCO - SB	Savannah Quarters to Canal Bank Rd	5046007	5046	2799.1	AM	52.7	45	1.17	0.1	0.0	Cross Street	A		A
ROGERS/QUACCO - SB	Savannah Quarters to Canal Bank Rd	5046007	5046	2799.1	MD	51.2	45	1.14	0.0	0.0	Cross Street	A		A
ROGERS/QUACCO - SB	Savannah Quarters to Canal Bank Rd	5046007	5046	2799.1	PM	55.1	45	1.22	0.3	0.0	Cross Street	A		A
ROGERS/QUACCO - SB	Canal Bank Rd to Pooler City Limit	5046008	5046	2699.3	AM	49.2	45	1.09	0.0	0.0	Cross Street	A		A
ROGERS/QUACCO - SB	Canal Bank Rd to Pooler City Limit	5046008	5046	2699.3	MD	49.6	45	1.10	0.0	0.0	Cross Street	A		A
ROGERS/QUACCO - SB	Canal Bank Rd to Pooler City Limit	5046008	5046	2699.3	PM	52.0	45	1.16	0.0	0.0	Cross Street	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ROGERS/QUACCO - SB	Pooler City Limit to Pooler City Limit	5046009	5046	1615.3	AM	40.7	45	0.91	70.9	61.8	City Limit	B		B
ROGERS/QUACCO - SB	Pooler City Limit to Pooler City Limit	5046009	5046	1615.3	MD	50.4	45	1.12	0.0	0.0	City Limit	A		A
ROGERS/QUACCO - SB	Pooler City Limit to Pooler City Limit	5046009	5046	1615.3	PM	49.9	45	1.11	0.5	0.0	City Limit	A		A
ROGERS/QUACCO - SB	Pooler City Limit to I-95	5046010	5046	7161	AM	52.6	50	1.05	3.5	0.0	Cross Street	A		A
ROGERS/QUACCO - SB	Pooler City Limit to I-95	5046010	5046	7161	MD	51.3	50	1.03	0.8	0.0	Cross Street	A		A
ROGERS/QUACCO - SB	Pooler City Limit to I-95	5046010	5046	7161	PM	49.7	50	0.99	3.7	0.0	Cross Street	A		A
ROGERS/QUACCO - SB	I-95 to Holiday	5046011	5046	8330.3	AM	50.3	43	1.16	1.3	0.0	Cross Street	A		A
ROGERS/QUACCO - SB	I-95 to Holiday	5046011	5046	8330.3	MD	48.9	43	1.13	0.5	0.0	Cross Street	A		A
ROGERS/QUACCO - SB	I-95 to Holiday	5046011	5046	8330.3	PM	49.6	43	1.15	1.5	0.0	Cross Street	A		A
ROGERS/QUACCO - SB	Holiday to US 17	5046012	5046	5523.5	AM	26.4	40	0.66	65.8	51.6	Cross Street	C		C
ROGERS/QUACCO - SB	Holiday to US 17	5046012	5046	5523.5	MD	38.5	40	0.96	13.0	12.3	Cross Street	A		A
ROGERS/QUACCO - SB	Holiday to US 17	5046012	5046	5523.5	PM	35.6	40	0.89	27.1	22.8	Cross Street	A		A
DEAN FOREST/BOURNE - NB	US 17 to Southridge	5051001	5051	11057.5	AM	46.1	45	1.02	1.4	0.0	TWSC	A		A
DEAN FOREST/BOURNE - NB	US 17 to Southridge	5051001	5051	11057.5	MD	45.0	45	1.00	1.4	0.0	TWSC	A		A
DEAN FOREST/BOURNE - NB	US 17 to Southridge	5051001	5051	11057.5	PM	44.6	45	0.99	8.4	3.2	TWSC	A		A
DEAN FOREST/BOURNE - NB	Southridge to I-16 EB Ramp	5051002	5051	1530.4	AM	23.2	45	0.52	31.6	21.7	Cross Street	D	High truck volumes	Priority IA - Widen from 2-4 between US 17 and I-16 - Consider Single Point Urban Interchange (SPUI)
DEAN FOREST/BOURNE - NB	Southridge to I-16 EB Ramp	5051002	5051	1530.4	MD	22.7	45	0.50	30.6	21.0	Cross Street	D	High truck volumes	Priority IA - Widen from 2-4 between US 17 and I-16 - Consider Single Point Urban Interchange (SPUI)
DEAN FOREST/BOURNE - NB	Southridge to I-16 EB Ramp	5051002	5051	1530.4	PM	27.7	45	0.62	40.9	28.2	Cross Street	C		C
DEAN FOREST/BOURNE - NB	I-16 EB Ramp to I-16 WB Ramp	5051003	5051	505.2	AM	29.9	45	0.66	3.8	0.0	Signal	A		A
DEAN FOREST/BOURNE - NB	I-16 EB Ramp to I-16 WB Ramp	5051003	5051	505.2	MD	31.2	45	0.69	3.3	0.0	Signal	A		A
DEAN FOREST/BOURNE - NB	I-16 EB Ramp to I-16 WB Ramp	5051003	5051	505.2	PM	35.1	45	0.78	2.5	0.0	Signal	A		A
DEAN FOREST/BOURNE - NB	I-16 WB Ramp to US 80	5051004	5051	8790.4	AM	41.8	45	0.93	18.2	15.5	Signal	B		B
DEAN FOREST/BOURNE - NB	I-16 WB Ramp to US 80	5051004	5051	8790.4	MD	41.4	45	0.92	13.7	8.3	Signal	B		B
DEAN FOREST/BOURNE - NB	I-16 WB Ramp to US 80	5051004	5051	8790.4	PM	40.7	45	0.90	21.7	17.4	Signal	C		C
DEAN FOREST/BOURNE - NB	US 80 to Old Louisville Rd	5051005	5051	1555.5	AM	43.8	45	0.97	1.0	0.0	Signal	A		A
DEAN FOREST/BOURNE - NB	US 80 to Old Louisville Rd	5051005	5051	1555.5	MD	42.0	45	0.93	1.8	0.0	Signal	A		A
DEAN FOREST/BOURNE - NB	US 80 to Old Louisville Rd	5051005	5051	1555.5	PM	44.8	45	1.00	1.3	0.0	Signal	A		A
DEAN FOREST/BOURNE - NB	Old Louisville Rd to Davidson	5051006	5051	8751.6	AM	51.2	45	1.14	0.8	1.0	Flashing Yellow	A		A
DEAN FOREST/BOURNE - NB	Old Louisville Rd to Davidson	5051006	5051	8751.6	MD	52.7	45	1.17	0.0	0.0	Flashing Yellow	A		A
DEAN FOREST/BOURNE - NB	Old Louisville Rd to Davidson	5051006	5051	8751.6	PM	51.4	45	1.14	0.0	0.8	Flashing Yellow	A		A
DEAN FOREST/BOURNE - NB	Davidson to Garden City City Limit	5051007	5051	4474.9	AM	47.8	45	1.06	1.0	0.0	Signal	A		A
DEAN FOREST/BOURNE - NB	Davidson to Garden City City Limit	5051007	5051	4474.9	MD	47.6	45	1.06	1.7	0.0	Signal	A		A
DEAN FOREST/BOURNE - NB	Davidson to Garden City City Limit	5051007	5051	4474.9	PM	45.7	45	1.02	2.1	0.0	Signal	A		A
DEAN FOREST/BOURNE - NB	Garden City City Limit to SH 21	5051008	5051	2474.6	AM	18.9	45	0.42	120.0	84.3	Cross Street	E	Funded Project for construction FY 2004-06 (PRC)	PI #562165 will widen to include center turn lane, lengthen bay for EB Rt across RR tracks
DEAN FOREST/BOURNE - NB	Garden City City Limit to SH 21	5051008	5051	2474.6	MD	17.4	45	0.39	96.9	63.7	Cross Street	E	Funded Project for construction FY 2004-06 (PRC)	PI #562165 will widen to include center turn lane, lengthen bay for EB Rt across RR tracks
DEAN FOREST/BOURNE - NB	Garden City City Limit to SH 21	5051008	5051	2474.6	PM	26.1	45	0.58	67.7	36.0	Cross Street	D	Funded Project for construction FY 2004-06 (PRC)	PI #562165 will widen to include center turn lane, lengthen bay for EB Rt across RR tracks
DEAN FOREST/BOURNE - NB	SH 21 to SH 25	5051009	5051	5674.7	AM	36.5	45	0.81	23.9	4.5	Signal	C		C
DEAN FOREST/BOURNE - NB	SH 21 to SH 25	5051009	5051	5674.7	MD	31.9	45	0.71	53.0	21.7	Signal	D	Currently detour due to construction on SR 25	Study next CMS

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
DEAN FOREST/BOURNE - NB	SH 21 to SH 25	5051009	5051	5674.7	PM	44.2	45	0.98	4.6	2.0	Signal	A		A
DEAN FOREST/BOURNE - SB	SH 25 to SH 21	5052002	5052	5674.7	AM	22.9	45	0.51	104.9	93.8	Signal	F	Heavy Truck Traffic, construction detour	High Percentage of Trucks and many stopped for queuing at Port - Widen shoulder to provide storage
DEAN FOREST/BOURNE - SB	SH 25 to SH 21	5052002	5052	5674.7	MD	27.7	45	0.62	72.5	56.7	Signal	E	Heavy Truck Traffic, construction detour	High Percentage of Trucks and many stopped for queuing at Port - Widen shoulder to provide storage
DEAN FOREST/BOURNE - SB	SH 25 to SH 21	5052002	5052	5674.7	PM	27.8	45	0.62	66.7	38.8	Signal	E	Heavy Truck Traffic, construction detour	High Percentage of Trucks and many stopped for queuing at Port - Widen shoulder to provide storage
DEAN FOREST/BOURNE - SB	SH 21 to Garden City City Limit	5052003	5052	2474.6	AM	45.6	45	1.01	0.7	0.0	Signal	A		A
DEAN FOREST/BOURNE - SB	SH 21 to Garden City City Limit	5052003	5052	2474.6	MD	42.7	45	0.95	2.6	0.0	Signal	A		A
DEAN FOREST/BOURNE - SB	SH 21 to Garden City City Limit	5052003	5052	2474.6	PM	38.2	45	0.85	7.1	0.2	Signal	A		A
DEAN FOREST/BOURNE - SB	Garden City City Limit to Davidson	5052004	5052	4474.9	AM	38.6	45	0.86	18.0	10.6	Cross Street	B		B
DEAN FOREST/BOURNE - SB	Garden City City Limit to Davidson	5052004	5052	4474.9	MD	43.6	45	0.97	3.9	0.0	Cross Street	A		A
DEAN FOREST/BOURNE - SB	Garden City City Limit to Davidson	5052004	5052	4474.9	PM	40.7	45	0.90	10.3	5.2	Cross Street	B		B
DEAN FOREST/BOURNE - SB	Davidson to Old Louisville Rd	5052005	5052	8751.6	AM	51.2	45	1.14	0.0	0.0	Signal	A		A
DEAN FOREST/BOURNE - SB	Davidson to Old Louisville Rd	5052005	5052	8751.6	MD	50.7	45	1.13	0.0	0.0	Signal	A		A
DEAN FOREST/BOURNE - SB	Davidson to Old Louisville Rd	5052005	5052	8751.6	PM	51.7	45	1.15	0.6	0.0	Signal	A		A
DEAN FOREST/BOURNE - SB	Old Louisville Rd to US 80	5052006	5052	1555.5	AM	28.2	45	0.63	26.0	17.6	Flashing Yellow	C		C
DEAN FOREST/BOURNE - SB	Old Louisville Rd to US 80	5052006	5052	1555.5	MD	21.8	45	0.48	25.8	13.7	Flashing Yellow	D	Excessive Delay at US 80	Priority IC - Operational will improve corridor operations at US 80
DEAN FOREST/BOURNE - SB	Old Louisville Rd to US 80	5052006	5052	1555.5	PM	13.1	45	0.29	66.7	49.3	Flashing Yellow	F	Excessive Delay at US 80	Priority IC - Operational will improve corridor operations at US 80
DEAN FOREST/BOURNE - SB	US 80 to I-16 WB Ramp	5052007	5052	8790.4	AM	44.1	45	0.98	4.6	1.8	Signal	A		A
DEAN FOREST/BOURNE - SB	US 80 to I-16 WB Ramp	5052007	5052	8790.4	MD	47.7	45	1.06	0.0	0.0	Signal	A		A
DEAN FOREST/BOURNE - SB	US 80 to I-16 WB Ramp	5052007	5052	8790.4	PM	42.1	45	0.93	13.7	7.0	Signal	B		B
DEAN FOREST/BOURNE - SB	I-16 WB Ramp to I-16 EB Ramp	5052008	5052	505.2	AM	31.7	45	0.70	3.1	0.0	Signal	A		A
DEAN FOREST/BOURNE - SB	I-16 WB Ramp to I-16 EB Ramp	5052008	5052	505.2	MD	32.9	45	0.73	2.5	0.0	Signal	A		A
DEAN FOREST/BOURNE - SB	I-16 WB Ramp to I-16 EB Ramp	5052008	5052	505.2	PM	32.5	45	0.72	2.8	0.0	Signal	A		A
DEAN FOREST/BOURNE - SB	I-16 EB Ramp to Southridge	5052009	5052	1530.4	AM	46.3	45	1.03	0.3	0.0	Signal	A		A
DEAN FOREST/BOURNE - SB	I-16 EB Ramp to Southridge	5052009	5052	1530.4	MD	44.9	45	1.00	0.9	0.0	Signal	A		A
DEAN FOREST/BOURNE - SB	I-16 EB Ramp to Southridge	5052009	5052	1530.4	PM	39.5	45	0.88	3.6	0.0	Signal	A		A
DEAN FOREST/BOURNE - SB	Southridge to US 17	5052010	5052	11057.5	AM	43.6	45	0.97	6.8	5.8	Cross Street	A		A
DEAN FOREST/BOURNE - SB	Southridge to US 17	5052010	5052	11057.5	MD	43.8	45	0.97	6.0	5.3	Cross Street	A		A
DEAN FOREST/BOURNE - SB	Southridge to US 17	5052010	5052	11057.5	PM	41.2	45	0.92	22.6	15.0	Cross Street	B		B
CHATHAM PKWY - NB	Girrad to Veterens Pkwy	5055001	5055	2133.8	AM	31.4	40	0.79	9.5	0.0	Cross Street	B		B
CHATHAM PKWY - NB	Girrad to Veterens Pkwy	5055001	5055	2133.8	MD	41.3	40	1.03	1.3	0.0	Cross Street	A		A
CHATHAM PKWY - NB	Girrad to Veterens Pkwy	5055001	5055	2133.8	PM	40.6	40	1.01	0.6	0.0	Cross Street	A		A
CHATHAM PKWY - NB	Veterens Pkwy to US 17	5055002	5055	3586.2	AM	26.0	40	0.65	33.2	20.3	Cross Street	C		C
CHATHAM PKWY - NB	Veterens Pkwy to US 17	5055002	5055	3586.2	MD	31.3	40	0.78	19.1	18.5	Cross Street	B		B
CHATHAM PKWY - NB	Veterens Pkwy to US 17	5055002	5055	3586.2	PM	22.9	40	0.57	49.8	37.0	Cross Street	C		C
CHATHAM PKWY - NB	US 17 to I-16 EB Ramp	5055003	5055	8648.5	AM	42.5	45	0.94	8.0	0.0	Signal	A		A
CHATHAM PKWY - NB	US 17 to I-16 EB Ramp	5055003	5055	8648.5	MD	43.9	45	0.97	12.1	5.5	Signal	B		B
CHATHAM PKWY - NB	US 17 to I-16 EB Ramp	5055003	5055	8648.5	PM	43.0	45	0.96	8.1	3.3	Signal	A		A
CHATHAM PKWY - NB	I-16 EB Ramp to I-16 WB Ramp	5055004	5055	994.7	AM	37.8	45	0.84	2.2	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
CHATHAM PKWY - NB	I-16 EB Ramp to I-16 WB Ramp	5055004	5055	994.7	MD	36.5	45	0.81	4.8	0.0	Signal	A		A
CHATHAM PKWY - NB	I-16 EB Ramp to I-16 WB Ramp	5055004	5055	994.7	PM	28.7	45	0.64	11.3	3.7	Signal	B		B
CHATHAM PKWY - NB	I-16 WB Ramp to US 80	5055005	5055	5761.9	AM	35.5	45	0.79	25.9	3.7	Signal	C		C
CHATHAM PKWY - NB	I-16 WB Ramp to US 80	5055005	5055	5761.9	MD	44.0	45	0.98	2.1	0.0	Signal	A		A
CHATHAM PKWY - NB	I-16 WB Ramp to US 80	5055005	5055	5761.9	PM	39.2	45	0.87	19.6	8.3	Signal	B		B
CHATHAM PKWY - SB	US 80 to I-16 WB Ramp	5056002	5056	5761.9	AM	38.2	45	0.85	15.1	0.0	Signal	B		B
CHATHAM PKWY - SB	US 80 to I-16 WB Ramp	5056002	5056	5761.9	MD	39.3	45	0.87	12.9	3.0	Signal	B		B
CHATHAM PKWY - SB	US 80 to I-16 WB Ramp	5056002	5056	5761.9	PM	31.8	45	0.71	36.6	17.0	Signal	D	Lone signal after long distance uncontrolled leads to random arrivals	Signal Operations - sufficient roadway capacity, excessive intersection delay
CHATHAM PKWY - SB	I-16 WB Ramp to I-16 EB Ramp	5056003	5056	994.7	AM	31.1	45	0.69	7.1	0.0	Signal	A		A
CHATHAM PKWY - SB	I-16 WB Ramp to I-16 EB Ramp	5056003	5056	994.7	MD	39.8	45	0.88	2.3	0.0	Signal	A		A
CHATHAM PKWY - SB	I-16 WB Ramp to I-16 EB Ramp	5056003	5056	994.7	PM	33.0	45	0.73	5.2	0.0	Signal	A		A
CHATHAM PKWY - SB	I-16 EB Ramp to US 17	5056004	5056	8648.5	AM	37.4	45	0.83	30.8	17.3	Signal	C		C
CHATHAM PKWY - SB	I-16 EB Ramp to US 17	5056004	5056	8648.5	MD	40.1	45	0.89	23.5	18.0	Signal	C		C
CHATHAM PKWY - SB	I-16 EB Ramp to US 17	5056004	5056	8648.5	PM	33.5	45	0.74	54.7	41.7	Signal	D	Study further for WB and SB right turn bays	Signal Operations - sufficient roadway capacity, excessive intersection delay
CHATHAM PKWY - SB	US 17 to Veterens Pkwy	5056005	5056	3586.2	AM	39.9	40	1.00	2.4	0.0	Signal	A		A
CHATHAM PKWY - SB	US 17 to Veterens Pkwy	5056005	5056	3586.2	MD	42.8	40	1.07	1.0	0.0	Signal	A		A
CHATHAM PKWY - SB	US 17 to Veterens Pkwy	5056005	5056	3586.2	PM	43.1	40	1.08	0.0	0.0	Signal	A		A
CHATHAM PKWY - SB	Veterens Pkwy to Girrad	5056006	5056	2133.8	AM	30.2	40	0.75	12.6	3.7	Cross Street	B		B
CHATHAM PKWY - SB	Veterens Pkwy to Girrad	5056006	5056	2133.8	MD	31.4	40	0.79	9.8	3.3	Cross Street	B		B
CHATHAM PKWY - SB	Veterens Pkwy to Girrad	5056006	5056	2133.8	PM	33.2	40	0.83	7.4	2.7	Cross Street	B		B
VETERANS PKWY - EB	Abercorn to Little Ogeechee River	5057001	5057	6461.2	AM	56.6	55	1.03	2.5	0.0	Cross Street	A		A
VETERANS PKWY - EB	Abercorn to Little Ogeechee River	5057001	5057	6461.2	MD	53.0	55	0.96	3.2	0.0	Cross Street	A		A
VETERANS PKWY - EB	Abercorn to Little Ogeechee River	5057001	5057	6461.2	PM	57.8	55	1.05	1.5	0.0	Cross Street	A		A
VETERANS PKWY - EB	Little Ogeechee River to RR	5057002	5057	14042.2	AM	64.3	55	1.17	0.0	0.0	Cross Street	A		A
VETERANS PKWY - EB	Little Ogeechee River to RR	5057002	5057	14042.2	MD	59.3	55	1.08	0.0	0.0	Cross Street	A		A
VETERANS PKWY - EB	Little Ogeechee River to RR	5057002	5057	14042.2	PM	61.0	55	1.11	0.6	0.0	Cross Street	A		A
VETERANS PKWY - EB	RR to Chatham Pkwy	5057003	5057	4389.7	AM	62.4	55	1.14	1.0	0.0	Cross Street	A		A
VETERANS PKWY - EB	RR to Chatham Pkwy	5057003	5057	4389.7	MD	60.8	55	1.11	0.0	0.0	Cross Street	A		A
VETERANS PKWY - EB	RR to Chatham Pkwy	5057003	5057	4389.7	PM	61.6	55	1.12	0.2	0.0	Cross Street	A		A
VETERANS PKWY - EB	Chatham Pkwy to SH 21	5057004	5057	5909.5	AM	55.5	55	1.01	2.4	0.0	Cross Street	A		A
VETERANS PKWY - EB	Chatham Pkwy to SH 21	5057004	5057	5909.5	MD	53.5	55	0.97	2.0	0.0	Cross Street	A		A
VETERANS PKWY - EB	Chatham Pkwy to SH 21	5057004	5057	5909.5	PM	62.2	55	1.13	0.0	0.0	Cross Street	A		A
VETERANS PKWY - WB	SH 21 to Chatham Pkwy	5058002	5058	5909.5	AM	53.7	55	0.98	3.6	0.0	Cross Street	A		A
VETERANS PKWY - WB	SH 21 to Chatham Pkwy	5058002	5058	5909.5	MD	54.5	55	0.99	1.0	0.0	Cross Street	A		A
VETERANS PKWY - WB	SH 21 to Chatham Pkwy	5058002	5058	5909.5	PM	56.7	55	1.03	2.4	0.0	Cross Street	A		A
VETERANS PKWY - WB	Chatham Pkwy to RR	5058003	5058	4389.8	AM	61.3	55	1.11	0.0	0.0	Cross Street	A		A
VETERANS PKWY - WB	Chatham Pkwy to RR	5058003	5058	4389.8	MD	58.5	55	1.06	0.0	0.0	Cross Street	A		A
VETERANS PKWY - WB	Chatham Pkwy to RR	5058003	5058	4389.8	PM	64.1	55	1.17	0.0	0.0	Cross Street	A		A
VETERANS PKWY - WB	RR to Little Ogeechee River	5058004	5058	14042.2	AM	61.0	55	1.11	0.0	0.0	Cross Street	A		A
VETERANS PKWY - WB	RR to Little Ogeechee River	5058004	5058	14042.2	MD	60.2	55	1.09	0.0	0.0	Cross Street	A		A
VETERANS PKWY - WB	RR to Little Ogeechee River	5058004	5058	14042.2	PM	63.3	55	1.15	0.0	0.0	Cross Street	A		A
VETERANS PKWY - WB	Little Ogeechee River to Abercorn	5058005	5058	6461.1	AM	56.3	55	1.02	3.5	0.0	Cross Street	A		A
VETERANS PKWY - WB	Little Ogeechee River to Abercorn	5058005	5058	6461.1	MD	53.8	55	0.98	3.5	0.0	Cross Street	A		A
VETERANS PKWY - WB	Little Ogeechee River to Abercorn	5058005	5058	6461.1	PM	60.2	55	1.10	1.0	0.0	Cross Street	A		A
MARTIN LUTHER KING - NB	Exchange/52nd St to Victory	5059001	5059	1908	AM	16.9	35	0.48	41.1	21.7	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - NB	Exchange/52nd St to Victory	5059001	5059	1908	MD	20.0	35	0.57	27.6	19.0	Signal	C		C

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
MARTIN LUTHER KING - NB	Exchange/52nd St to Victory	5059001	5059	1908	PM	15.4	35	0.44	45.2	25.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - NB	Victory to 37th St	5059002	5059	1760.9	AM	22.1	35	0.63	22.2	8.0	Signal	C		C
MARTIN LUTHER KING - NB	Victory to 37th St	5059002	5059	1760.9	MD	13.6	35	0.39	52.9	39.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - NB	Victory to 37th St	5059002	5059	1760.9	PM	19.4	35	0.56	26.9	16.0	Signal	C		C
MARTIN LUTHER KING - NB	37th St to Anderson	5059003	5059	2045.8	AM	24.5	35	0.70	24.4	17.7	Signal	C		C
MARTIN LUTHER KING - NB	37th St to Anderson	5059003	5059	2045.8	MD	26.6	35	0.76	16.1	11.0	Signal	B		B
MARTIN LUTHER KING - NB	37th St to Anderson	5059003	5059	2045.8	PM	17.5	35	0.50	42.8	30.0	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - NB	Anderson to Henry	5059004	5059	302.4	AM	29.9	35	0.85	0.6	0.0	Signal	A		A
MARTIN LUTHER KING - NB	Anderson to Henry	5059004	5059	302.4	MD	28.1	35	0.80	1.5	0.0	Signal	A		A
MARTIN LUTHER KING - NB	Anderson to Henry	5059004	5059	302.4	PM	26.2	35	0.75	7.9	0.3	Signal	A		A
MARTIN LUTHER KING - NB	Henry to Gwinnett	5059005	5059	1516.7	AM	33.6	35	0.96	2.8	0.0	Signal	A		A
MARTIN LUTHER KING - NB	Henry to Gwinnett	5059005	5059	1516.7	MD	25.8	35	0.74	12.5	9.7	Signal	B		B
MARTIN LUTHER KING - NB	Henry to Gwinnett	5059005	5059	1516.7	PM	28.6	35	0.82	8.5	4.0	Signal	A		A
MARTIN LUTHER KING - NB	Gwinnett to Gaston	5059006	5059	1143.4	AM	35.3	35	1.01	0.3	0.0	Signal	A		A
MARTIN LUTHER KING - NB	Gwinnett to Gaston	5059006	5059	1143.4	MD	35.0	35	1.00	0.4	0.0	Signal	A		A
MARTIN LUTHER KING - NB	Gwinnett to Gaston	5059006	5059	1143.4	PM	28.6	35	0.82	5.0	2.0	Signal	A		A
MARTIN LUTHER KING - NB	Gaston to I-16	5059007	5059	531.3	AM	30.0	35	0.86	3.0	1.0	Signal	A		A
MARTIN LUTHER KING - NB	Gaston to I-16	5059007	5059	531.3	MD	28.6	35	0.82	2.9	0.0	Signal	A		A
MARTIN LUTHER KING - NB	Gaston to I-16	5059007	5059	531.3	PM	33.8	35	0.97	0.6	0.0	Signal	A		A
MARTIN LUTHER KING - NB	I-16 to Liberty	5059008	5059	1048.7	AM	16.5	35	0.47	30.5	19.3	Signal	C		C
MARTIN LUTHER KING - NB	I-16 to Liberty	5059008	5059	1048.7	MD	31.8	35	0.91	2.0	1.0	Signal	A		A
MARTIN LUTHER KING - NB	I-16 to Liberty	5059008	5059	1048.7	PM	37.2	35	1.06	0.0	0.0	Signal	A		A
MARTIN LUTHER KING - NB	Liberty to Oglethorpe	5059009	5059	1036.4	AM	31.1	35	0.89	2.4	0.0	Signal	A		A
MARTIN LUTHER KING - NB	Liberty to Oglethorpe	5059009	5059	1036.4	MD	32.0	35	0.91	2.4	0.0	Signal	A		A
MARTIN LUTHER KING - NB	Liberty to Oglethorpe	5059009	5059	1036.4	PM	31.8	35	0.91	1.9	0.0	Signal	A		A
MARTIN LUTHER KING - NB	Oglethorpe to Broughton	5059010	5059	714.8	AM	35.6	35	1.02	0.1	0.0	Signal	A		A
MARTIN LUTHER KING - NB	Oglethorpe to Broughton	5059010	5059	714.8	MD	35.6	35	1.02	0.6	0.0	Signal	A		A
MARTIN LUTHER KING - NB	Oglethorpe to Broughton	5059010	5059	714.8	PM	33.9	35	0.97	0.5	0.0	Signal	A		A
MARTIN LUTHER KING - NB	Broughton to Bay St	5059011	5059	771.2	AM	15.4	35	0.44	33.0	24.0	Signal	C		C
MARTIN LUTHER KING - NB	Broughton to Bay St	5059011	5059	771.2	MD	7.4	35	0.21	60.6	48.3	Signal	E	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - NB	Broughton to Bay St	5059011	5059	771.2	PM	10.0	35	0.29	46.8	30.7	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - SB	Bay St to Broughton	5060002	5060	771.1	AM	24.5	35	0.70	7.6	1.0	Signal	A		A
MARTIN LUTHER KING - SB	Bay St to Broughton	5060002	5060	771.1	MD	32.0	35	0.92	1.9	0.0	Signal	A		A
MARTIN LUTHER KING - SB	Bay St to Broughton	5060002	5060	771.1	PM	22.7	35	0.65	10.2	4.3	Signal	B		B
MARTIN LUTHER KING - SB	Broughton to Oglethorpe	5060003	5060	714.8	AM	21.0	35	0.60	18.1	11.3	Signal	B		B
MARTIN LUTHER KING - SB	Broughton to Oglethorpe	5060003	5060	714.8	MD	9.1	35	0.26	46.2	33.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - SB	Broughton to Oglethorpe	5060003	5060	714.8	PM	12.5	35	0.36	39.9	24.4	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - SB	Oglethorpe to Liberty	5060004	5060	1036.5	AM	10.2	35	0.29	49.9	35.9	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - SB	Oglethorpe to Liberty	5060004	5060	1036.5	MD	10.5	35	0.30	45.5	31.7	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - SB	Oglethorpe to Liberty	5060004	5060	1036.5	PM	10.3	35	0.29	47.1	31.6	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - SB	Liberty to I-16	5060005	5060	1048.6	AM	33.0	35	0.94	1.5	0.0	Signal	A		A
MARTIN LUTHER KING - SB	Liberty to I-16	5060005	5060	1048.6	MD	33.6	35	0.96	0.9	0.0	Signal	A		A
MARTIN LUTHER KING - SB	Liberty to I-16	5060005	5060	1048.6	PM	29.9	35	0.85	3.8	0.0	Signal	A		A
MARTIN LUTHER KING - SB	I-16 to Gaston	5060006	5060	531.3	AM	37.7	35	1.08	0.2	0.0	Signal	A		A
MARTIN LUTHER KING - SB	I-16 to Gaston	5060006	5060	531.3	MD	37.8	35	1.08	0.0	0.0	Signal	A		A
MARTIN LUTHER KING - SB	I-16 to Gaston	5060006	5060	531.3	PM	33.3	35	0.95	1.6	0.0	Signal	A		A
MARTIN LUTHER KING - SB	Gaston to Gwinnett	5060007	5060	1143.4	AM	35.7	35	1.02	0.8	0.0	Signal	A		A
MARTIN LUTHER KING - SB	Gaston to Gwinnett	5060007	5060	1143.4	MD	36.9	35	1.06	0.5	0.0	Signal	A		A
MARTIN LUTHER KING - SB	Gaston to Gwinnett	5060007	5060	1143.4	PM	17.4	35	0.50	27.3	17.0	Signal	C		C
MARTIN LUTHER KING - SB	Gwinnett to Henry	5060008	5060	1516.8	AM	34.5	35	0.99	1.7	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
MARTIN LUTHER KING - SB	Gwinnett to Henry	5060008	5060	1516.8	MD	37.0	35	1.06	0.0	0.0	Signal	A		A
MARTIN LUTHER KING - SB	Gwinnett to Henry	5060008	5060	1516.8	PM	24.3	35	0.69	16.8	5.0	Signal	B		B
MARTIN LUTHER KING - SB	Henry to Anderson	5060009	5060	302.4	AM	15.8	35	0.45	17.9	12.0	Signal	B		B
MARTIN LUTHER KING - SB	Henry to Anderson	5060009	5060	302.4	MD	33.3	35	0.95	1.2	0.0	Signal	A		A
MARTIN LUTHER KING - SB	Henry to Anderson	5060009	5060	302.4	PM	13.5	35	0.39	13.4	5.2	Signal	B		B
MARTIN LUTHER KING - SB	Anderson to 37th St	5060010	5060	2045.7	AM	24.6	35	0.70	20.9	13.8	Signal	C		C
MARTIN LUTHER KING - SB	Anderson to 37th St	5060010	5060	2045.7	MD	18.3	35	0.52	38.1	24.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - SB	Anderson to 37th St	5060010	5060	2045.7	PM	29.8	35	0.85	7.2	0.0	Signal	A		A
MARTIN LUTHER KING - SB	37th St to Victory	5060011	5060	1760.9	AM	17.1	35	0.49	36.4	25.0	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - SB	37th St to Victory	5060011	5060	1760.9	MD	15.1	35	0.43	44.4	35.5	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - MLK is lacking timing for progression, Coordinate signal timing along corridor
MARTIN LUTHER KING - SB	37th St to Victory	5060011	5060	1760.9	PM	21.6	35	0.62	22.4	5.2	Signal	C		C
MARTIN LUTHER KING - SB	Victory to Exchange/52nd St	5060012	5060	1908	AM	25.3	35	0.72	14.4	5.3	Signal	B		B
MARTIN LUTHER KING - SB	Victory to Exchange/52nd St	5060012	5060	1908	MD	34.2	35	0.98	2.3	0.0	Signal	A		A
MARTIN LUTHER KING - SB	Victory to Exchange/52nd St	5060012	5060	1908	PM	26.3	35	0.75	13.5	3.2	Signal	B		B
MONTGOMERY - NB	DeRenne to Church Driveway	5061002	5061	1359.8	AM	28.6	27	1.06	3.0	2.9	Signal	A		A
MONTGOMERY - NB	DeRenne to Church Driveway	5061002	5061	1359.8	MD	32.0	34	0.95	4.3	1.1	Signal	A		A
MONTGOMERY - NB	DeRenne to Church Driveway	5061002	5061	1359.8	PM	29.6	35	0.85	4.6	0.0	Signal	A		A
MONTGOMERY - NB	Church Driveway to 54th St	5061003	5061	4551.1	AM	37.1	37	1.00	3.3	0.2	Signal	A		A
MONTGOMERY - NB	Church Driveway to 54th St	5061003	5061	4551.1	MD	36.8	37	0.98	7.4	2.6	Signal	A		A
MONTGOMERY - NB	Church Driveway to 54th St	5061003	5061	4551.1	PM	29.2	37	0.78	24.2	6.0	Signal	C		C
MONTGOMERY - NB	54th St to 52nd St	5061004	5061	541	AM	30.6	35	0.87	3.4	0.6	Signal	A		A
MONTGOMERY - NB	54th St to 52nd St	5061004	5061	541	MD	31.4	35	0.90	3.4	1.3	Signal	A		A
MONTGOMERY - NB	54th St to 52nd St	5061004	5061	541	PM	22.5	35	0.64	8.1	3.0	Signal	A		A
MONTGOMERY - NB	52nd St to Exchange	5061005	5061	1022.7	AM	33.3	35	0.95	2.1	0.0	Signal	A		A
MONTGOMERY - NB	52nd St to Exchange	5061005	5061	1022.7	MD	38.5	35	1.10	0.3	0.0	Signal	A		A
MONTGOMERY - NB	52nd St to Exchange	5061005	5061	1022.7	PM	32.4	35	0.92	2.8	0.0	Signal	A		A
MONTGOMERY - NB	Exchange to Victory	5061006	5061	1456.6	AM	18.8	35	0.54	30.0	16.0	Signal	C		C
MONTGOMERY - NB	Exchange to Victory	5061006	5061	1456.6	MD	21.7	35	0.62	25.3	15.2	Signal	C		C
MONTGOMERY - NB	Exchange to Victory	5061006	5061	1456.6	PM	16.2	35	0.46	33.8	15.6	Signal	C		C
MONTGOMERY - NB	Victory to 37th St	5061007	5061	1832.1	AM	23.4	35	0.67	27.2	18.2	Signal	C		C
MONTGOMERY - NB	Victory to 37th St	5061007	5061	1832.1	MD	19.1	35	0.55	33.0	16.8	Signal	C		C
MONTGOMERY - NB	Victory to 37th St	5061007	5061	1832.1	PM	16.0	35	0.46	49.4	25.9	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
MONTGOMERY - NB	37th St to Anderson	5061008	5061	2050.9	AM	26.4	30	0.88	10.4	8.5	Signal	B		B
MONTGOMERY - NB	37th St to Anderson	5061008	5061	2050.9	MD	23.7	30	0.79	21.8	13.2	Signal	C		C
MONTGOMERY - NB	37th St to Anderson	5061008	5061	2050.9	PM	20.9	30	0.70	26.4	16.4	Signal	C		C
MONTGOMERY - NB	Anderson to Henry	5061009	5061	310	AM	23.8	30	0.79	5.1	2.8	Signal	A		A
MONTGOMERY - NB	Anderson to Henry	5061009	5061	310	MD	21.2	30	0.71	11.2	6.7	Signal	B		B
MONTGOMERY - NB	Anderson to Henry	5061009	5061	310	PM	19.1	30	0.64	8.7	3.8	Signal	A		A
MONTGOMERY - NB	Henry to Gwinnett	5061010	5061	1506	AM	26.5	30	0.88	9.1	6.3	Signal	A		A
MONTGOMERY - NB	Henry to Gwinnett	5061010	5061	1506	MD	21.6	30	0.72	16.8	12.8	Signal	B		B
MONTGOMERY - NB	Henry to Gwinnett	5061010	5061	1506	PM	19.5	30	0.65	21.3	11.6	Signal	C		C
MONTGOMERY - NB	Gwinnett to I-16 Ramp Merges	5061011	5061	1865.5	AM	33.5	30	1.12	0.3	0.0	Signal	A		A
MONTGOMERY - NB	Gwinnett to I-16 Ramp Merges	5061011	5061	1865.5	MD	34.4	30	1.15	0.1	0.0	Signal	A		A
MONTGOMERY - NB	Gwinnett to I-16 Ramp Merges	5061011	5061	1865.5	PM	32.5	30	1.08	0.1	0.0	Signal	A		A
MONTGOMERY - NB	I-16 Ramp Merges to Liberty	5061012	5061	907.7	AM	23.9	30	0.80	10.0	5.6	Cross Street	B		B
MONTGOMERY - NB	I-16 Ramp Merges to Liberty	5061012	5061	907.7	MD	26.2	30	0.87	12.3	9.7	Cross Street	A		A
MONTGOMERY - NB	I-16 Ramp Merges to Liberty	5061012	5061	907.7	PM	16.9	30	0.56	26.3	18.8	Cross Street	C		C
MONTGOMERY - NB	Liberty to Oglethorpe	5061013	5061	903.4	AM	28.8	30	0.96	2.3	0.0	Signal	A		A
MONTGOMERY - NB	Liberty to Oglethorpe	5061013	5061	903.4	MD	15.8	30	0.53	30.2	23.2	Signal	C		C
MONTGOMERY - NB	Liberty to Oglethorpe	5061013	5061	903.4	PM	25.8	30	0.86	4.3	0.0	Signal	A		A
MONTGOMERY - NB	Oglethorpe to Broughton	5061014	5061	804.2	AM	16.9	30	0.56	21.6	11.4	Signal	C		C

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
MONTGOMERY - NB	Oglethorpe to Broughton	5061014	5061	804.2	MD	11.9	30	0.40	30.6	15.0	Signal	C		C
MONTGOMERY - NB	Oglethorpe to Broughton	5061014	5061	804.2	PM	11.9	30	0.40	40.5	23.2	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
MONTGOMERY - NB	Broughton to Franklin SQ S	5061015	5061	252.7	AM	20.3	30	0.68	2.5	0.0	Cross Street	B		B
MONTGOMERY - NB	Broughton to Franklin SQ S	5061015	5061	252.7	MD	17.2	30	0.57	3.9	0.0	Cross Street	C		C
MONTGOMERY - NB	Broughton to Franklin SQ S	5061015	5061	252.7	PM	18.2	30	0.61	4.2	0.0	Cross Street	C		C
MONTGOMERY - NB	Franklin SQ S to Franklin SQ N	5061016	5061	318.2	AM	15.6	30	0.52	5.6	0.0	Signal	A		A
MONTGOMERY - NB	Franklin SQ S to Franklin SQ N	5061016	5061	318.2	MD	14.6	30	0.49	6.9	0.7	Signal	A		A
MONTGOMERY - NB	Franklin SQ S to Franklin SQ N	5061016	5061	318.2	PM	13.3	30	0.44	7.2	0.0	Signal	A		A
MONTGOMERY - NB	Franklin SQ N to Bay St	5061017	5061	247.1	AM	5.9	30	0.20	31.8	20.6	Cross Street	F	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
MONTGOMERY - NB	Franklin SQ N to Bay St	5061017	5061	247.1	MD	4.8	30	0.16	46.7	36.2	Cross Street	F	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
MONTGOMERY - NB	Franklin SQ N to Bay St	5061017	5061	247.1	PM	9.4	30	0.31	25.3	14.8	Cross Street	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
MONTGOMERY - SB	I-16 Ramp Merges to Gwinnett	5062001	5062	1865.5	AM	24.9	30	0.83	12.1	5.0	Cross Street	B		B
MONTGOMERY - SB	I-16 Ramp Merges to Gwinnett	5062001	5062	1865.5	MD	26.7	30	0.89	5.2	0.0	Cross Street	A		A
MONTGOMERY - SB	I-16 Ramp Merges to Gwinnett	5062001	5062	1865.5	PM	30.5	30	1.02	0.2	0.0	Cross Street	A		A
MONTGOMERY - SB	Gwinnett to Henry	5062002	5062	1506	AM	26.4	30	0.88	12.6	9.4	Signal	B		B
MONTGOMERY - SB	Gwinnett to Henry	5062002	5062	1506	MD	24.5	30	0.82	17.8	16.4	Signal	B		B
MONTGOMERY - SB	Gwinnett to Henry	5062002	5062	1506	PM	27.4	30	0.91	12.9	8.7	Signal	B		B
MONTGOMERY - SB	Henry to Anderson	5062003	5062	309.9	AM	28.2	30	0.94	0.6	0.0	Signal	A		A
MONTGOMERY - SB	Henry to Anderson	5062003	5062	309.9	MD	27.8	30	0.93	2.3	0.0	Signal	A		A
MONTGOMERY - SB	Henry to Anderson	5062003	5062	309.9	PM	22.4	30	0.75	3.4	0.0	Signal	A		A
MONTGOMERY - SB	Anderson to 37th St	5062004	5062	2050.9	AM	23.6	30	0.79	18.3	11.6	Signal	B		B
MONTGOMERY - SB	Anderson to 37th St	5062004	5062	2050.9	MD	20.8	30	0.69	28.2	21.7	Signal	C		C
MONTGOMERY - SB	Anderson to 37th St	5062004	5062	2050.9	PM	18.3	30	0.61	34.1	19.3	Signal	C		C
MONTGOMERY - SB	37th St to Victory	5062005	5062	1832.1	AM	21.6	35	0.62	24.5	11.9	Signal	C		C
MONTGOMERY - SB	37th St to Victory	5062005	5062	1832.1	MD	27.1	35	0.77	17.2	11.8	Signal	B		B
MONTGOMERY - SB	37th St to Victory	5062005	5062	1832.1	PM	17.8	35	0.51	36.7	15.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
MONTGOMERY - SB	Victory to Exchange	5062006	5062	1456.6	AM	28.4	35	0.81	8.0	1.8	Signal	A		A
MONTGOMERY - SB	Victory to Exchange	5062006	5062	1456.6	MD	33.3	35	0.95	1.8	0.0	Signal	A		A
MONTGOMERY - SB	Victory to Exchange	5062006	5062	1456.6	PM	21.0	35	0.60	21.3	7.0	Signal	C		C
MONTGOMERY - SB	Exchange to 52nd St	5062007	5062	1022.8	AM	22.2	35	0.63	20.7	13.3	Signal	C		C
MONTGOMERY - SB	Exchange to 52nd St	5062007	5062	1022.8	MD	28.9	35	0.83	9.4	7.0	Signal	A		A
MONTGOMERY - SB	Exchange to 52nd St	5062007	5062	1022.8	PM	18.4	35	0.53	27.9	17.4	Signal	C		C
MONTGOMERY - SB	52nd St to 54th St	5062008	5062	541	AM	25.1	35	0.72	7.4	2.7	Signal	A		A
MONTGOMERY - SB	52nd St to 54th St	5062008	5062	541	MD	26.6	35	0.76	6.6	2.4	Signal	A		A
MONTGOMERY - SB	52nd St to 54th St	5062008	5062	541	PM	20.1	35	0.57	12.9	6.0	Signal	B		B
MONTGOMERY - SB	54th St to Church Driveway	5062009	5062	4551.1	AM	34.2	37	0.91	10.0	7.4	Signal	A		A
MONTGOMERY - SB	54th St to Church Driveway	5062009	5062	4551.1	MD	32.2	37	0.86	14.9	8.4	Signal	B		B
MONTGOMERY - SB	54th St to Church Driveway	5062009	5062	4551.1	PM	30.5	37	0.82	20.9	11.3	Signal	C		C
MONTGOMERY - SB	Church Driveway to DeRenne	5062010	5062	1359.8	AM	17.3	35	0.49	58.6	43.4	Signal	E	Canopy - Constrained Corridor, Minor Approach	Consider the addition of a right turn bay
MONTGOMERY - SB	Church Driveway to DeRenne	5062010	5062	1359.8	MD	14.3	35	0.41	73.9	61.0	Signal	E	Canopy - Constrained Corridor, Minor Approach	Consider the addition of a right turn bay
MONTGOMERY - SB	Church Driveway to DeRenne	5062010	5062	1359.8	PM	11.3	35	0.32	73.0	53.3	Signal	E	Canopy - Constrained Corridor, Minor Approach	Consider the addition of a right turn bay
MONTGOMERY - SB	Bay St to Franklin SQ N	5062014	5062	247.1	AM	20.6	30	0.69	1.7	0.0	Signal	A		A
MONTGOMERY - SB	Bay St to Franklin SQ N	5062014	5062	247.1	MD	20.3	30	0.68	2.0	0.0	Signal	A		A
MONTGOMERY - SB	Bay St to Franklin SQ N	5062014	5062	247.1	PM	19.7	30	0.66	2.2	0.0	Signal	A		A
MONTGOMERY - SB	Franklin SQ N to Franklin SQ S	5062015	5062	317.3	AM	14.4	30	0.48	8.9	0.2	Cross Street	C		C
MONTGOMERY - SB	Franklin SQ N to Franklin SQ S	5062015	5062	317.3	MD	13.3	30	0.44	9.8	0.5	Cross Street	C		C
MONTGOMERY - SB	Franklin SQ N to Franklin SQ S	5062015	5062	317.3	PM	11.9	30	0.40	12.8	0.6	Cross Street	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
MONTGOMERY - SB	Franklin SQ S to Broughton	5062016	5062	252.7	AM	13.3	30	0.44	7.6	1.2	Signal	A		A
MONTGOMERY - SB	Franklin SQ S to Broughton	5062016	5062	252.7	MD	10.1	30	0.34	13.3	4.7	Signal	B		B
MONTGOMERY - SB	Franklin SQ S to Broughton	5062016	5062	252.7	PM	12.6	30	0.42	14.2	5.6	Signal	B		B
WHITAKER - SB	Bay St to Broughton	5064001	5064	852.7	AM	12.6	25	0.50	30.7	18.7	Signal	C		C
WHITAKER - SB	Bay St to Broughton	5064001	5064	852.7	MD	6.2	25	0.25	79.8	61.5	Signal	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
WHITAKER - SB	Bay St to Broughton	5064001	5064	852.7	PM	9.6	25	0.38	62.5	42.7	Signal	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
WHITAKER - SB	Broughton to Oglethorpe	5064002	5064	809.9	AM	24.8	25	0.99	1.2	0.0	Signal	A		A
WHITAKER - SB	Broughton to Oglethorpe	5064002	5064	809.9	MD	20.8	25	0.83	9.1	0.0	Signal	A		A
WHITAKER - SB	Broughton to Oglethorpe	5064002	5064	809.9	PM	15.5	25	0.62	39.9	20.6	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
WHITAKER - SB	Oglethorpe to Liberty	5064003	5064	817.3	AM	19.0	25	0.76	9.0	4.3	Signal	A		A
WHITAKER - SB	Oglethorpe to Liberty	5064003	5064	817.3	MD	8.1	25	0.32	47.5	33.5	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
WHITAKER - SB	Oglethorpe to Liberty	5064003	5064	817.3	PM	15.9	25	0.64	22.2	13.8	Signal	C		C
WHITAKER - SB	Liberty to Gaston	5064004	5064	1713.6	AM	29.9	30	1.00	1.6	0.0	Signal	A		A
WHITAKER - SB	Liberty to Gaston	5064004	5064	1713.6	MD	24.6	30	0.82	9.8	3.0	Signal	A		A
WHITAKER - SB	Liberty to Gaston	5064004	5064	1713.6	PM	27.4	30	0.91	6.1	0.8	Signal	A		A
WHITAKER - SB	Gaston to Gwinnett	5064005	5064	1158.3	AM	31.1	35	0.89	2.8	0.0	Signal	A		A
WHITAKER - SB	Gaston to Gwinnett	5064005	5064	1158.3	MD	27.3	35	0.78	6.1	0.0	Signal	A		A
WHITAKER - SB	Gaston to Gwinnett	5064005	5064	1158.3	PM	32.2	35	0.92	2.7	0.0	Signal	A		A
WHITAKER - SB	Gwinnett to West Park	5064006	5064	892.3	AM	34.8	35	0.99	0.8	0.0	Cross Street	A		A
WHITAKER - SB	Gwinnett to West Park	5064006	5064	892.3	MD	34.1	35	0.97	0.9	0.0	Cross Street	A		A
WHITAKER - SB	Gwinnett to West Park	5064006	5064	892.3	PM	32.7	35	0.94	1.7	0.0	Cross Street	A		A
WHITAKER - SB	West Park to Henry	5064007	5064	607	AM	10.3	35	0.29	25.8	16.7	Flashing Yellow	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
WHITAKER - SB	West Park to Henry	5064007	5064	607	MD	29.0	35	0.83	2.9	0.0	Flashing Yellow	B		B
WHITAKER - SB	West Park to Henry	5064007	5064	607	PM	17.3	35	0.49	19.0	9.6	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
WHITAKER - SB	Henry to Anderson	5064008	5064	305.5	AM	16.8	35	0.48	6.2	0.0	Signal	A		A
WHITAKER - SB	Henry to Anderson	5064008	5064	305.5	MD	24.3	35	0.69	3.7	0.0	Signal	A		A
WHITAKER - SB	Henry to Anderson	5064008	5064	305.5	PM	24.5	35	0.70	2.6	0.0	Signal	A		A
WHITAKER - SB	Anderson to 37th St	5064009	5064	2059.4	AM	17.4	35	0.50	47.1	32.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
WHITAKER - SB	Anderson to 37th St	5064009	5064	2059.4	MD	20.7	35	0.59	34.7	21.0	Signal	C		C
WHITAKER - SB	Anderson to 37th St	5064009	5064	2059.4	PM	24.5	35	0.70	23.5	11.8	Signal	C		C
WHITAKER - SB	37th St to 43th St	5064010	5064	921.2	AM	29.7	35	0.85	4.0	0.0	Signal	A		A
WHITAKER - SB	37th St to 43th St	5064010	5064	921.2	MD	31.1	35	0.89	2.0	0.0	Signal	A		A
WHITAKER - SB	37th St to 43th St	5064010	5064	921.2	PM	33.3	35	0.95	2.0	0.0	Signal	A		A
WHITAKER - SB	43th St to Victory	5064011	5064	898.6	AM	15.5	35	0.44	26.5	14.7	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
WHITAKER - SB	43th St to Victory	5064011	5064	898.6	MD	12.0	35	0.34	36.5	23.0	Flashing Yellow	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
WHITAKER - SB	43th St to Victory	5064011	5064	898.6	PM	13.3	35	0.38	45.7	28.5	Flashing Yellow	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
BULL/WHITE BLUFF - NB	Honey Bee to White Bluff Ave	5065001	5065	4435.4	AM	30.1	32	0.94	14.7	4.8	Cross Street	A		A
BULL/WHITE BLUFF - NB	Honey Bee to White Bluff Ave	5065001	5065	4435.4	MD	30.8	32	0.96	3.4	1.3	Cross Street	A		A
BULL/WHITE BLUFF - NB	Honey Bee to White Bluff Ave	5065001	5065	4435.4	PM	34.2	32	1.07	2.6	0.3	Cross Street	A		A
BULL/WHITE BLUFF - NB	White Bluff Ave to Old Coffee Bluff Rd	5065002	5065	4454.7	AM	37.2	35	1.06	4.7	0.0	Cross Street	A		A
BULL/WHITE BLUFF - NB	White Bluff Ave to Old Coffee Bluff Rd	5065002	5065	4454.7	MD	36.6	35	1.04	2.1	0.0	Cross Street	A		A
BULL/WHITE BLUFF - NB	White Bluff Ave to Old Coffee Bluff Rd	5065002	5065	4454.7	PM	36.1	35	1.02	4.4	1.3	Cross Street	A		A
BULL/WHITE BLUFF - NB	Old Coffee Bluff Rd to Willow	5065003	5065	5408.4	AM	34.6	40	0.86	16.9	5.8	Cross Street	B		B
BULL/WHITE BLUFF - NB	Old Coffee Bluff Rd to Willow	5065003	5065	5408.4	MD	38.6	40	0.96	4.5	0.0	Cross Street	A		A
BULL/WHITE BLUFF - NB	Old Coffee Bluff Rd to Willow	5065003	5065	5408.4	PM	40.0	40	1.00	4.0	0.0	Cross Street	A		A
BULL/WHITE BLUFF - NB	Willow to Windsor	5065004	5065	901.8	AM	36.9	40	0.92	1.6	0.0	Flashing Yellow	A		A
BULL/WHITE BLUFF - NB	Willow to Windsor	5065004	5065	901.8	MD	21.4	40	0.53	21.5	13.7	Flashing Yellow	D	Signal Operations inefficient due to offset geometry	Improvements limited due to geometry, optimize signal timing and consider realignment for eastern approach
BULL/WHITE BLUFF - NB	Willow to Windsor	5065004	5065	901.8	PM	20.5	40	0.51	18.5	8.3	Flashing Yellow	D	Signal Operations inefficient due to offset geometry	Improvements limited due to geometry, optimize signal timing and consider realignment for eastern approach
BULL/WHITE BLUFF - NB	Windsor to Holland	5065005	5065	1349.8	AM	40.6	40	1.01	0.6	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Windsor to Holland	5065005	5065	1349.8	MD	24.0	40	0.60	15.8	6.3	Signal	B		B
BULL/WHITE BLUFF - NB	Windsor to Holland	5065005	5065	1349.8	PM	26.4	40	0.66	12.7	2.0	Signal	B		B
BULL/WHITE BLUFF - NB	Holland to White Bluff	5065006	5065	2278.5	AM	41.8	40	1.04	1.0	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Holland to White Bluff	5065006	5065	2278.5	MD	39.5	40	0.99	1.7	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BULL/WHITE BLUFF - NB	Holland to White Bluff	5065006	5065	2278.5	PM	38.4	40	0.96	1.8	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	White Bluff to Firestation	5065007	5065	1296.5	AM	39.6	40	0.99	1.3	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	White Bluff to Firestation	5065007	5065	1296.5	MD	41.6	40	1.04	0.4	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	White Bluff to Firestation	5065007	5065	1296.5	PM	38.6	40	0.96	0.8	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Firestation to Tippett	5065008	5065	720.2	AM	23.7	40	0.59	14.4	9.8	Signal	B		B
BULL/WHITE BLUFF - NB	Firestation to Tippett	5065008	5065	720.2	MD	24.3	40	0.61	14.4	7.7	Signal	B		B
BULL/WHITE BLUFF - NB	Firestation to Tippett	5065008	5065	720.2	PM	35.9	40	0.90	2.0	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Tippett to Television Circle	5065009	5065	986.1	AM	33.9	40	0.85	3.5	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Tippett to Television Circle	5065009	5065	986.1	MD	35.3	40	0.88	2.0	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Tippett to Television Circle	5065009	5065	986.1	PM	38.4	40	0.96	1.4	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Television Circle to Montgomery Cross	5065010	5065	3378	AM	18.5	40	0.46	71.5	45.2	Signal	E	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
BULL/WHITE BLUFF - NB	Television Circle to Montgomery Cross	5065010	5065	3378	MD	35.0	40	0.88	13.3	1.3	Signal	B		B
BULL/WHITE BLUFF - NB	Television Circle to Montgomery Cross	5065010	5065	3378	PM	29.4	40	0.73	23.3	7.0	Signal	C		C
BULL/WHITE BLUFF - NB	Montgomery Cross to Mall Driveway	5065011	5065	1406	AM	25.6	40	0.64	17.3	8.4	Signal	B		B
BULL/WHITE BLUFF - NB	Montgomery Cross to Mall Driveway	5065011	5065	1406	MD	20.8	40	0.52	31.3	20.7	Signal	C		C
BULL/WHITE BLUFF - NB	Montgomery Cross to Mall Driveway	5065011	5065	1406	PM	22.5	40	0.56	36.1	24.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
BULL/WHITE BLUFF - NB	Mall Driveway to Abercorn	5065012	5065	710.5	AM	7.1	40	0.18	69.9	48.0	Signal	E	Abercorn volumes very heavy	NB/SB left turns very light, consider restricting them, coordinate signal with Mall Dr
BULL/WHITE BLUFF - NB	Mall Driveway to Abercorn	5065012	5065	710.5	MD	12.6	40	0.32	60.2	46.3	Signal	E	Abercorn volumes very heavy	NB/SB left turns very light, consider restricting them, coordinate signal with Mall Dr
BULL/WHITE BLUFF - NB	Mall Driveway to Abercorn	5065012	5065	710.5	PM	11.1	40	0.28	75.0	58.0	Signal	E	Abercorn volumes very heavy	NB/SB left turns very light, consider restricting them, coordinate signal with Mall Dr
BULL/WHITE BLUFF - NB	Abercorn to Eisenhower	5065013	5065	2720.2	AM	27.3	40	0.68	29.5	14.5	Signal	C		C
BULL/WHITE BLUFF - NB	Abercorn to Eisenhower	5065013	5065	2720.2	MD	36.0	40	0.90	5.8	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Abercorn to Eisenhower	5065013	5065	2720.2	PM	35.3	40	0.88	8.1	2.8	Signal	A		A
BULL/WHITE BLUFF - NB	Eisenhower to Stephenson Ave / Hunter Airfield	5065014	5065	1332.6	AM	30.2	40	0.76	7.9	2.0	Signal	A		A
BULL/WHITE BLUFF - NB	Eisenhower to Stephenson Ave / Hunter Airfield	5065014	5065	1332.6	MD	39.0	40	0.97	2.7	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Eisenhower to Stephenson Ave / Hunter Airfield	5065014	5065	1332.6	PM	21.2	40	0.53	29.1	20.0	Signal	C		C
BULL/WHITE BLUFF - NB	Stephenson Ave / Hunter Airfield to Johnston	5065015	5065	3200	AM	39.6	40	0.99	1.0	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Stephenson Ave / Hunter Airfield to Johnston	5065015	5065	3200	MD	40.6	40	1.01	0.5	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Stephenson Ave / Hunter Airfield to Johnston	5065015	5065	3200	PM	23.4	40	0.58	91.9	40.7	Signal	F	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations, Left turn signal control
BULL/WHITE BLUFF - NB	Johnston to Hampstead	5065016	5065	1051.8	AM	42.5	40	1.06	0.3	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Johnston to Hampstead	5065016	5065	1051.8	MD	38.0	40	0.95	0.9	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Johnston to Hampstead	5065016	5065	1051.8	PM	9.8	40	0.25	103.7	62.3	Signal	F	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
BULL/WHITE BLUFF - NB	Hampstead to DeRenne	5065017	5065	1250	AM	8.2	35	0.23	91.2	69.8	Signal	F	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations, study in E-W study
BULL/WHITE BLUFF - NB	Hampstead to DeRenne	5065017	5065	1250	MD	6.2	35	0.18	111.7	89.0	Signal	F	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations, study in E-W study
BULL/WHITE BLUFF - NB	Hampstead to DeRenne	5065017	5065	1250	PM	4.3	35	0.12	177.4	132.7	Signal	F	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations, study in E-W study
BULL/WHITE BLUFF - NB	DeRenne to 61st St	5065018	5065	3527.3	AM	28.9	35	0.82	15.0	4.0	Signal	B		B
BULL/WHITE BLUFF - NB	DeRenne to 61st St	5065018	5065	3527.3	MD	31.3	35	0.89	8.7	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	DeRenne to 61st St	5065018	5065	3527.3	PM	25.3	35	0.72	31.1	12.7	Signal	C		C
BULL/WHITE BLUFF - NB	61st St to 52nd St	5065019	5065	2967	AM	33.1	35	0.95	4.7	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	61st St to 52nd St	5065019	5065	2967	MD	26.4	35	0.76	19.2	2.7	Signal	B		B
BULL/WHITE BLUFF - NB	61st St to 52nd St	5065019	5065	2967	PM	31.1	35	0.89	7.8	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	52nd St to Washington	5065020	5065	1401.8	AM	31.7	35	0.91	3.2	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	52nd St to Washington	5065020	5065	1401.8	MD	28.2	35	0.80	6.4	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	52nd St to Washington	5065020	5065	1401.8	PM	27.7	35	0.79	7.0	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Washington to Victory	5065021	5065	1096	AM	18.2	35	0.52	24.4	12.8	Signal	C		C
BULL/WHITE BLUFF - NB	Washington to Victory	5065021	5065	1096	MD	16.5	35	0.47	31.3	18.3	Signal	C		C
BULL/WHITE BLUFF - NB	Washington to Victory	5065021	5065	1096	PM	19.8	35	0.57	18.7	9.7	Signal	B		B
BULL/WHITE BLUFF - NB	Victory to 40th St	5065022	5065	950	AM	27.1	35	0.77	5.8	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BULL/WHITE BLUFF - NB	Victory to 40th St	5065022	5065	950	MD	24.1	35	0.69	7.9	0.0	Signal	A		A
BULL/WHITE BLUFF - NB	Victory to 40th St	5065022	5065	950	PM	21.1	35	0.60	12.6	0.0	Signal	B		B
BULL/WHITE BLUFF - SB	40th St to Victory	5066001	5066	950	AM	9.8	35	0.28	45.7	28.5	Cross Street	F	Excessive delay at Victory and over to Montgomery	Update and coordinate signal timing on Victory from MLK to the east
BULL/WHITE BLUFF - SB	40th St to Victory	5066001	5066	950	MD	15.1	35	0.43	28.1	14.0	Cross Street	D	Excessive delay at Victory and over to Montgomery	Update and coordinate signal timing on Victory from MLK to the east
BULL/WHITE BLUFF - SB	40th St to Victory	5066001	5066	950	PM	19.2	35	0.55	21.5	9.0	Cross Street	C		C
BULL/WHITE BLUFF - SB	Victory to Washington	5066002	5066	1096	AM	27.5	35	0.79	6.0	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Victory to Washington	5066002	5066	1096	MD	31.3	35	0.89	2.4	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Victory to Washington	5066002	5066	1096	PM	29.7	35	0.85	4.0	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Washington to 52nd St	5066003	5066	1401.8	AM	27.2	35	0.78	8.8	4.2	Signal	A		A
BULL/WHITE BLUFF - SB	Washington to 52nd St	5066003	5066	1401.8	MD	27.4	35	0.78	9.4	3.8	Signal	A		A
BULL/WHITE BLUFF - SB	Washington to 52nd St	5066003	5066	1401.8	PM	30.1	35	0.86	4.4	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	52nd St to 61st St	5066004	5066	2966.9	AM	32.9	35	0.94	3.9	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	52nd St to 61st St	5066004	5066	2966.9	MD	32.9	35	0.94	6.3	1.5	Signal	A		A
BULL/WHITE BLUFF - SB	52nd St to 61st St	5066004	5066	2966.9	PM	31.4	35	0.90	6.7	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	61st St to DeRenne	5066005	5066	3527.4	AM	23.0	32	0.72	35.5	22.8	Signal	D	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations
BULL/WHITE BLUFF - SB	61st St to DeRenne	5066005	5066	3527.4	MD	13.6	35	0.39	118.2	92.5	Signal	F	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations
BULL/WHITE BLUFF - SB	61st St to DeRenne	5066005	5066	3527.4	PM	23.0	35	0.66	35.8	19.0	Signal	D	Canopy - Constrained Corridor, Minor Approach	Constrained Corridor - Improvements limited to Optimizing Signal Operations
BULL/WHITE BLUFF - SB	DeRenne to Hampstead	5066006	5066	1250	AM	30.8	35	0.88	3.2	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	DeRenne to Hampstead	5066006	5066	1250	MD	26.4	35	0.75	9.0	1.8	Signal	A		A
BULL/WHITE BLUFF - SB	DeRenne to Hampstead	5066006	5066	1250	PM	26.8	35	0.77	8.9	0.8	Signal	A		A
BULL/WHITE BLUFF - SB	Hampstead to Johnston	5066007	5066	1051.8	AM	36.7	40	0.92	1.8	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Hampstead to Johnston	5066007	5066	1051.8	MD	30.6	40	0.76	7.1	1.3	Signal	A		A
BULL/WHITE BLUFF - SB	Hampstead to Johnston	5066007	5066	1051.8	PM	16.1	40	0.40	26.2	14.0	Signal	C		C
BULL/WHITE BLUFF - SB	Johnston to Stephenson Ave / Hunter Airfield	5066008	5066	3200	AM	30.0	40	0.75	21.7	11.8	Signal	C		C
BULL/WHITE BLUFF - SB	Johnston to Stephenson Ave / Hunter Airfield	5066008	5066	3200	MD	30.5	40	0.76	19.8	7.8	Signal	B		B
BULL/WHITE BLUFF - SB	Johnston to Stephenson Ave / Hunter Airfield	5066008	5066	3200	PM	27.5	40	0.69	25.0	8.0	Signal	C		C
BULL/WHITE BLUFF - SB	Stephenson Ave / Hunter Airfield to Eisenhower	5066009	5066	1332.6	AM	38.5	40	0.96	1.2	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Stephenson Ave / Hunter Airfield to Eisenhower	5066009	5066	1332.6	MD	25.5	40	0.64	16.9	7.3	Signal	B		B
BULL/WHITE BLUFF - SB	Stephenson Ave / Hunter Airfield to Eisenhower	5066009	5066	1332.6	PM	36.3	40	0.91	2.6	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Eisenhower to Abercorn	5066010	5066	2720.2	AM	26.2	40	0.66	44.8	33.5	Signal	D	Canopy - Constrained Corridor, Minor Approach	NB/SB left turns very light, consider restricting them, add NB Right turn overlap
BULL/WHITE BLUFF - SB	Eisenhower to Abercorn	5066010	5066	2720.2	MD	23.5	40	0.59	44.1	29.3	Signal	D	Canopy - Constrained Corridor, Minor Approach	NB/SB left turns very light, consider restricting them, add NB Right turn overlap
BULL/WHITE BLUFF - SB	Eisenhower to Abercorn	5066010	5066	2720.2	PM	9.2	40	0.23	179.3	129.3	Signal	F	Canopy - Constrained Corridor, Minor Approach	NB/SB left turns very light, consider restricting them, add NB Right turn overlap
BULL/WHITE BLUFF - SB	Abercorn to Mall Driveway	5066011	5066	710.5	AM	27.0	40	0.68	8.5	1.8	Signal	A		A
BULL/WHITE BLUFF - SB	Abercorn to Mall Driveway	5066011	5066	710.5	MD	31.0	40	0.78	2.7	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Abercorn to Mall Driveway	5066011	5066	710.5	PM	27.8	40	0.69	5.4	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Mall Driveway to Montgomery Cross	5066012	5066	1406	AM	14.0	40	0.35	50.8	34.4	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
BULL/WHITE BLUFF - SB	Mall Driveway to Montgomery Cross	5066012	5066	1406	MD	22.1	40	0.55	28.3	18.7	Signal	C		C
BULL/WHITE BLUFF - SB	Mall Driveway to Montgomery Cross	5066012	5066	1406	PM	11.0	40	0.27	71.4	44.6	Signal	E	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
BULL/WHITE BLUFF - SB	Montgomery Cross to Television Circle	5066013	5066	3377.9	AM	35.4	40	0.88	8.2	1.8	Signal	A		A
BULL/WHITE BLUFF - SB	Montgomery Cross to Television Circle	5066013	5066	3377.9	MD	39.1	40	0.98	1.7	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Montgomery Cross to Television Circle	5066013	5066	3377.9	PM	31.6	40	0.79	18.9	6.8	Signal	B		B
BULL/WHITE BLUFF - SB	Television Circle to Tippett	5066014	5066	986.2	AM	37.2	40	0.93	1.4	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Television Circle to Tippett	5066014	5066	986.2	MD	35.5	40	0.89	2.5	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Television Circle to Tippett	5066014	5066	986.2	PM	21.9	40	0.55	15.4	4.8	Signal	B		B
BULL/WHITE BLUFF - SB	Tippett to Firestation	5066015	5066	720.2	AM	38.1	40	0.95	0.5	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Tippett to Firestation	5066015	5066	720.2	MD	35.0	40	0.88	2.0	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Tippett to Firestation	5066015	5066	720.2	PM	36.5	40	0.91	1.4	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Firestation to White Bluff	5066016	5066	1296.5	AM	41.5	40	1.04	0.3	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Firestation to White Bluff	5066016	5066	1296.5	MD	41.0	40	1.03	0.2	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Firestation to White Bluff	5066016	5066	1296.5	PM	40.8	40	1.02	0.0	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BULL/WHITE BLUFF - SB	White Bluff to Holland	5066017	5066	2278.5	AM	38.0	40	0.95	3.1	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	White Bluff to Holland	5066017	5066	2278.5	MD	40.0	40	1.00	2.1	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	White Bluff to Holland	5066017	5066	2278.5	PM	40.4	40	1.01	2.1	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Holland to Windsor	5066018	5066	1349.8	AM	21.9	40	0.55	23.3	12.8	Signal	C		C
BULL/WHITE BLUFF - SB	Holland to Windsor	5066018	5066	1349.8	MD	19.7	40	0.49	34.5	25.7	Signal	C		C
BULL/WHITE BLUFF - SB	Holland to Windsor	5066018	5066	1349.8	PM	25.3	40	0.63	23.3	15.3	Signal	C		C
BULL/WHITE BLUFF - SB	Windsor to Willow	5066019	5066	901.8	AM	35.5	40	0.89	1.0	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Windsor to Willow	5066019	5066	901.8	MD	35.6	40	0.89	1.4	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Windsor to Willow	5066019	5066	901.8	PM	34.0	40	0.85	2.6	0.0	Signal	A		A
BULL/WHITE BLUFF - SB	Willow to Old Coffee Bluff Rd	5066020	5066	5408.4	AM	36.7	40	0.92	9.1	0.0	Flashing Yellow	A		A
BULL/WHITE BLUFF - SB	Willow to Old Coffee Bluff Rd	5066020	5066	5408.4	MD	36.6	40	0.92	8.7	0.0	Flashing Yellow	A		A
BULL/WHITE BLUFF - SB	Willow to Old Coffee Bluff Rd	5066020	5066	5408.4	PM	37.8	40	0.95	7.7	0.0	Flashing Yellow	A		A
BULL/WHITE BLUFF - SB	Old Coffee Bluff Rd to White Bluff Ave	5066021	5066	4454.6	AM	35.1	35	1.00	4.3	0.0	Cross Street	A		A
BULL/WHITE BLUFF - SB	Old Coffee Bluff Rd to White Bluff Ave	5066021	5066	4454.6	MD	36.0	35	1.02	3.8	0.0	Cross Street	A		A
BULL/WHITE BLUFF - SB	Old Coffee Bluff Rd to White Bluff Ave	5066021	5066	4454.6	PM	35.9	35	1.02	1.4	0.0	Cross Street	A		A
BULL/WHITE BLUFF - SB	White Bluff Ave to Honey Bee	5066022	5066	4435.5	AM	33.1	32	1.04	2.3	0.0	Cross Street	A		A
BULL/WHITE BLUFF - SB	White Bluff Ave to Honey Bee	5066022	5066	4435.5	MD	32.5	32	1.02	2.2	0.0	Cross Street	A		A
BULL/WHITE BLUFF - SB	White Bluff Ave to Honey Bee	5066022	5066	4435.5	PM	30.4	32	0.95	5.1	0.0	Cross Street	A		A
DRAYTON - NB	Victory to 37th St	5067001	5067	1712.5	AM	22.4	35	0.64	25.2	12.0	Signal	C		C
DRAYTON - NB	Victory to 37th St	5067001	5067	1712.5	MD	12.8	35	0.37	59.1	41.0	Signal	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
DRAYTON - NB	Victory to 37th St	5067001	5067	1712.5	PM	17.4	35	0.50	39.3	19.5	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
DRAYTON - NB	37th St to Anderson	5067002	5067	2062.9	AM	27.3	35	0.78	13.7	4.0	Signal	B		B
DRAYTON - NB	37th St to Anderson	5067002	5067	2062.9	MD	26.6	35	0.76	12.9	3.5	Signal	B		B
DRAYTON - NB	37th St to Anderson	5067002	5067	2062.9	PM	24.8	35	0.71	18.8	8.5	Signal	B		B
DRAYTON - NB	Anderson to Henry	5067003	5067	313.6	AM	15.7	35	0.45	6.6	0.8	Signal	A		A
DRAYTON - NB	Anderson to Henry	5067003	5067	313.6	MD	22.4	35	0.64	3.8	0.0	Signal	A		A
DRAYTON - NB	Anderson to Henry	5067003	5067	313.6	PM	21.4	35	0.61	5.1	0.3	Signal	A		A
DRAYTON - NB	Henry to East Park	5067004	5067	590.6	AM	28.0	35	0.80	2.9	0.0	Signal	A		A
DRAYTON - NB	Henry to East Park	5067004	5067	590.6	MD	27.4	35	0.78	2.6	0.0	Signal	A		A
DRAYTON - NB	Henry to East Park	5067004	5067	590.6	PM	27.8	35	0.79	2.8	0.0	Signal	A		A
DRAYTON - NB	East Park to Gaston	5067005	5067	2062.9	AM	31.8	35	0.91	4.0	0.0	Flashing Yellow	A		A
DRAYTON - NB	East Park to Gaston	5067005	5067	2062.9	MD	29.0	35	0.83	8.4	0.0	Flashing Yellow	B		B
DRAYTON - NB	East Park to Gaston	5067005	5067	2062.9	PM	25.2	35	0.72	20.8	4.8	Flashing Yellow	B		B
DRAYTON - NB	Gaston to Liberty	5067006	5067	1713.4	AM	17.3	30	0.58	34.4	20.8	Signal	C		C
DRAYTON - NB	Gaston to Liberty	5067006	5067	1713.4	MD	13.0	30	0.43	50.1	37.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
DRAYTON - NB	Gaston to Liberty	5067006	5067	1713.4	PM	20.7	30	0.69	21.3	6.5	Signal	C		C
DRAYTON - NB	Liberty to Oglethorpe	5067007	5067	823.4	AM	26.7	30	0.89	3.1	0.0	Signal	A		A
DRAYTON - NB	Liberty to Oglethorpe	5067007	5067	823.4	MD	10.2	30	0.34	37.3	22.5	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
DRAYTON - NB	Liberty to Oglethorpe	5067007	5067	823.4	PM	10.0	30	0.33	35.0	22.0	Signal	C		C
DRAYTON - NB	Oglethorpe to Broughton	5067008	5067	807.6	AM	23.8	30	0.79	5.5	0.0	Signal	A		A
DRAYTON - NB	Oglethorpe to Broughton	5067008	5067	807.6	MD	10.8	30	0.36	35.1	15.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
DRAYTON - NB	Oglethorpe to Broughton	5067008	5067	807.6	PM	12.3	30	0.41	33.6	17.5	Signal	C		C
DRAYTON - NB	Broughton to Bay St	5067009	5067	744	AM	17.3	30	0.58	11.0	0.5	Signal	B		B
DRAYTON - NB	Broughton to Bay St	5067009	5067	744	MD	15.0	30	0.50	24.7	7.5	Signal	C		C
DRAYTON - NB	Broughton to Bay St	5067009	5067	744	PM	12.9	30	0.43	32.5	6.5	Signal	C		C
ABERCORN - NB	I-95 to Gateway	5069003	5069	396	AM	17.6	55	0.32	25.9	17.0	Cross Street	E	Delays between I-95 S and Gateway	Priority II - Operational at I-95, Coordinate signals between I-95 South ramp and Gateway
ABERCORN - NB	I-95 to Gateway	5069003	5069	396	MD	7.4	55	0.13	42.8	30.0	Cross Street	F	Delays between I-95 S and Gateway	Priority II - Operational at I-95, Coordinate signals between I-95 South ramp and Gateway
ABERCORN - NB	I-95 to Gateway	5069003	5069	396	PM	8.2	55	0.15	27.7	16.7	Cross Street	F	Delays between I-95 S and Gateway	Priority II - Operational at I-95, Coordinate signals between I-95 South ramp and Gateway
ABERCORN - NB	Gateway to US 17	5069004	5069	10230.8	AM	60.2	55	1.09	0.5	0.0	Signal	A		A
ABERCORN - NB	Gateway to US 17	5069004	5069	10230.8	MD	61.6	55	1.12	0.0	0.0	Signal	A		A
ABERCORN - NB	Gateway to US 17	5069004	5069	10230.8	PM	58.5	55	1.06	0.0	0.0	Signal	A		A
ABERCORN - NB	US 17 to Pine Grove	5069005	5069	7497.4	AM	52.6	55	0.96	11.3	4.0	Cross Street	A		A
ABERCORN - NB	US 17 to Pine Grove	5069005	5069	7497.4	MD	54.8	55	1.00	4.0	2.0	Cross Street	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ABERCORN - NB	US 17 to Pine Grove	5069005	5069	7497.4	PM	58.0	55	1.05	1.6	0.0	Cross Street	A		A
ABERCORN - NB	Pine Grove to King George	5069006	5069	3413.4	AM	26.2	55	0.48	103.9	59.5	Signal	F	Excessive eastbound delays at King George	Priority II - Widen 4-6 from US 17 to King George, accel lane for EB rights, widen King George appr
ABERCORN - NB	Pine Grove to King George	5069006	5069	3413.4	MD	19.4	55	0.35	85.3	58.0	Signal	F	Excessive eastbound delays at King George	Priority II - Widen 4-6 from US 17 to King George, accel lane for EB rights, widen King George appr
ABERCORN - NB	Pine Grove to King George	5069006	5069	3413.4	PM	28.2	55	0.51	69.3	40.3	Signal	E	Excessive eastbound delays at King George	Priority II - Widen 4-6 from US 17 to King George, accel lane for EB rights, widen King George appr
ABERCORN - NB	King George to Veterens Pkwy	5069007	5069	5532.2	AM	54.9	55	1.00	2.1	0.0	Signal	A		A
ABERCORN - NB	King George to Veterens Pkwy	5069007	5069	5532.2	MD	54.7	55	0.99	0.9	0.0	Signal	A		A
ABERCORN - NB	King George to Veterens Pkwy	5069007	5069	5532.2	PM	55.4	55	1.01	0.8	0.0	Signal	A		A
ABERCORN - NB	Veterens Pkwy to City Limit	5069008	5069	5420.2	AM	55.8	55	1.02	1.7	0.0	Signal	A		A
ABERCORN - NB	Veterens Pkwy to City Limit	5069008	5069	5420.2	MD	57.4	55	1.04	0.0	0.0	Signal	A		A
ABERCORN - NB	Veterens Pkwy to City Limit	5069008	5069	5420.2	PM	50.6	55	0.92	7.4	0.0	Signal	A		A
ABERCORN - NB	City Limit to Rio	5069009	5069	1579.9	AM	42.6	55	0.77	5.8	0.0	City Limit	A		A
ABERCORN - NB	City Limit to Rio	5069009	5069	1579.9	MD	41.9	55	0.76	6.9	0.0	City Limit	B		B
ABERCORN - NB	City Limit to Rio	5069009	5069	1579.9	PM	26.3	55	0.48	26.9	2.7	City Limit	D	Excessive delays at Rio	Priority IC - Widen 4-6 from Rio to Truman, Optimize from Rio to King George
ABERCORN - NB	Rio to Apache	5069010	5069	2685.1	AM	29.3	45	0.65	35.9	21.0	Signal	D	Excessive delays at Apache	Priority IB - Operational, Priority IC - Widen from Rio to Truman, Coordinate between Rio and King George
ABERCORN - NB	Rio to Apache	5069010	5069	2685.1	MD	50.5	45	1.12	0.4	0.0	Signal	A		A
ABERCORN - NB	Rio to Apache	5069010	5069	2685.1	PM	25.2	45	0.56	32.0	11.3	Signal	C		C
ABERCORN - NB	Apache to Science	5069011	5069	1401.1	AM	33.5	45	0.75	15.6	9.0	Signal	B		B
ABERCORN - NB	Apache to Science	5069011	5069	1401.1	MD	35.7	45	0.79	5.4	0.0	Signal	A		A
ABERCORN - NB	Apache to Science	5069011	5069	1401.1	PM	20.1	45	0.45	42.4	29.0	Signal	D	Delays throughout corridor	Priority IC - Widen 4-6 from Rio to Truman, Coordinate between Rio and King George
ABERCORN - NB	Science to Mercy	5069012	5069	3831.4	AM	41.8	45	0.93	9.6	5.6	Signal	A		A
ABERCORN - NB	Science to Mercy	5069012	5069	3831.4	MD	37.0	45	0.82	13.0	2.5	Signal	B		B
ABERCORN - NB	Science to Mercy	5069012	5069	3831.4	PM	42.0	45	0.93	9.8	6.0	Signal	A		A
ABERCORN - NB	Mercy to Largo	5069013	5069	1390.8	AM	28.9	45	0.64	20.9	10.8	Signal	C		C
ABERCORN - NB	Mercy to Largo	5069013	5069	1390.8	MD	41.1	45	0.91	2.0	0.0	Signal	A		A
ABERCORN - NB	Mercy to Largo	5069013	5069	1390.8	PM	11.8	45	0.26	57.6	38.3	Signal	E	Intersection Delays at Largo	Priority IB - Operational, Priority IC - Widen 4-6 from Rio to Truman
ABERCORN - NB	Largo to Deerfield	5069014	5069	1613.2	AM	41.3	45	0.92	2.1	0.0	Signal	A		A
ABERCORN - NB	Largo to Deerfield	5069014	5069	1613.2	MD	19.9	45	0.44	30.2	16.5	Signal	C		C
ABERCORN - NB	Largo to Deerfield	5069014	5069	1613.2	PM	37.3	45	0.83	4.9	0.0	Signal	A		A
ABERCORN - NB	Deerfield to Wilshire Blvd	5069015	5069	4300.5	AM	38.8	45	0.86	13.8	6.3	Signal	B		B
ABERCORN - NB	Deerfield to Wilshire Blvd	5069015	5069	4300.5	MD	44.3	45	0.99	1.0	0.0	Signal	A		A
ABERCORN - NB	Deerfield to Wilshire Blvd	5069015	5069	4300.5	PM	46.8	45	1.04	3.0	0.0	Signal	A		A
ABERCORN - NB	Wilshire Blvd to Tibet Ave	5069016	5069	2018.3	AM	31.0	45	0.69	16.4	8.0	Signal	B		B
ABERCORN - NB	Wilshire Blvd to Tibet Ave	5069016	5069	2018.3	MD	32.2	45	0.71	29.4	23.5	Signal	C		C
ABERCORN - NB	Wilshire Blvd to Tibet Ave	5069016	5069	2018.3	PM	43.9	45	0.98	3.6	0.0	Signal	A		A
ABERCORN - NB	Tibet Ave to Television Circle	5069017	5069	1005.4	AM	38.6	45	0.86	2.5	0.0	Signal	A		A
ABERCORN - NB	Tibet Ave to Television Circle	5069017	5069	1005.4	MD	42.8	45	0.95	2.2	0.0	Signal	A		A
ABERCORN - NB	Tibet Ave to Television Circle	5069017	5069	1005.4	PM	20.6	45	0.46	33.2	24.7	Signal	C		C
ABERCORN - NB	Television Circle to Montgomery Cross	5069018	5069	2959.3	AM	35.9	45	0.80	12.7	1.8	Signal	B		B
ABERCORN - NB	Television Circle to Montgomery Cross	5069018	5069	2959.3	MD	37.4	45	0.83	10.4	4.5	Signal	B		B
ABERCORN - NB	Television Circle to Montgomery Cross	5069018	5069	2959.3	PM	23.9	45	0.53	48.0	29.3	Signal	D	Oversaturated Intersection	Consider NB and SB right turn lanes and optimize signal, Truman ext may relieve some volume
ABERCORN - NB	Montgomery Cross to Mall Driveway	5069019	5069	1638.4	AM	43.2	45	0.96	1.4	0.0	Signal	A		A
ABERCORN - NB	Montgomery Cross to Mall Driveway	5069019	5069	1638.4	MD	32.2	45	0.71	11.4	5.0	Signal	B		B
ABERCORN - NB	Montgomery Cross to Mall Driveway	5069019	5069	1638.4	PM	38.9	45	0.86	3.8	0.0	Signal	A		A
ABERCORN - NB	Mall Driveway to White Bluff	5069020	5069	1234.6	AM	43.1	45	0.96	1.3	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ABERCORN - NB	Mall Driveway to White Bluff	5069020	5069	1234.6	MD	24.9	45	0.55	36.9	29.0	Signal	D	short distance between Mall and White Bluff	Coordinate signals between Mall driveway and White Bluff, review turning movements
ABERCORN - NB	Mall Driveway to White Bluff	5069020	5069	1234.6	PM	7.3	45	0.16	93.9	71.3	Signal	F	short distance between Mall and White Bluff	Coordinate signals between Mall driveway and White Bluff, review turning movements
ABERCORN - NB	White Bluff to Mall Blvd	5069021	5069	1536.8	AM	44.2	45	0.98	0.4	0.0	Signal	A		A
ABERCORN - NB	White Bluff to Mall Blvd	5069021	5069	1536.8	MD	38.8	45	0.86	3.7	0.0	Signal	A		A
ABERCORN - NB	White Bluff to Mall Blvd	5069021	5069	1536.8	PM	9.3	45	0.21	87.2	61.5	Signal	F	Excessive Intersection Delays	Priority IB - Operational, NB right turn lane planned, will free up some time for others
ABERCORN - NB	Mall Blvd to Eisenhower	5069022	5069	1555.4	AM	27.3	45	0.61	37.1	28.8	Signal	D	Poor signal coordination	Coordinate signals along Abercorn
ABERCORN - NB	Mall Blvd to Eisenhower	5069022	5069	1555.4	MD	21.1	45	0.47	26.2	11.0	Signal	C		C
ABERCORN - NB	Mall Blvd to Eisenhower	5069022	5069	1555.4	PM	22.5	45	0.50	65.4	45.0	Signal	E	Poor signal coordination	Coordinate signals along Abercorn
ABERCORN - NB	Eisenhower to Stephenson	5069023	5069	1364.3	AM	28.7	45	0.64	13.8	4.8	Signal	B		B
ABERCORN - NB	Eisenhower to Stephenson	5069023	5069	1364.3	MD	37.9	45	0.84	3.7	0.0	Signal	A		A
ABERCORN - NB	Eisenhower to Stephenson	5069023	5069	1364.3	PM	16.9	45	0.38	47.2	28.3	Signal	D	Currently under construction on Stephenson	Coordinate signals along Abercorn, Study next CMS after construction
ABERCORN - NB	Stephenson to Jackson	5069024	5069	1300.8	AM	39.0	45	0.87	3.0	0.0	Signal	A		A
ABERCORN - NB	Stephenson to Jackson	5069024	5069	1300.8	MD	22.0	45	0.49	20.2	8.5	Signal	C		C
ABERCORN - NB	Stephenson to Jackson	5069024	5069	1300.8	PM	24.5	45	0.55	20.1	5.8	Signal	C		C
ABERCORN - NB	Jackson to Lee Blvd	5069025	5069	964.7	AM	41.1	45	0.91	1.6	0.0	Signal	A		A
ABERCORN - NB	Jackson to Lee Blvd	5069025	5069	964.7	MD	35.1	45	0.78	4.5	0.0	Signal	A		A
ABERCORN - NB	Jackson to Lee Blvd	5069025	5069	964.7	PM	35.2	45	0.78	4.3	0.0	Signal	A		A
ABERCORN - NB	Lee Blvd to Janet	5069026	5069	1361.3	AM	32.0	45	0.71	15.3	9.2	Signal	B		B
ABERCORN - NB	Lee Blvd to Janet	5069026	5069	1361.3	MD	28.1	45	0.62	19.9	11.0	Signal	B		B
ABERCORN - NB	Lee Blvd to Janet	5069026	5069	1361.3	PM	10.7	45	0.24	91.1	58.4	Signal	F	Poor signal coordination	Coordinate signals along Abercorn
ABERCORN - NB	Janet to Private Drive	5069027	5069	1124.9	AM	37.8	45	0.84	3.2	0.0	Signal	A		A
ABERCORN - NB	Janet to Private Drive	5069027	5069	1124.9	MD	37.1	45	0.82	3.7	0.0	Signal	A		A
ABERCORN - NB	Janet to Private Drive	5069027	5069	1124.9	PM	24.1	45	0.54	45.5	21.4	Signal	D	Poor signal coordination	Coordinate signals along Abercorn
ABERCORN - NB	Private Drive to DeRenne	5069028	5069	729.3	AM	5.6	40	0.14	83.8	66.2	Signal	F	Excessive Intersection Delays	Priority IB - Operational - Optimize Derenne and Abercorn will improve, NB right turn lane planned
ABERCORN - NB	Private Drive to DeRenne	5069028	5069	729.3	MD	11.2	40	0.28	42.8	24.7	Signal	D	Excessive Intersection Delays	Priority IB - Operational - Optimize Derenne and Abercorn will improve, NB right turn lane planned
ABERCORN - NB	Private Drive to DeRenne	5069028	5069	729.3	PM	4.4	40	0.11	107.0	81.6	Signal	F	Excessive Intersection Delays	Priority IB - Operational - Optimize Derenne and Abercorn will improve, NB right turn lane planned
ABERCORN - NB	DeRenne to 63rd St	5069029	5069	2759.3	AM	29.2	40	0.73	21.7	12.8	Signal	C		C
ABERCORN - NB	DeRenne to 63rd St	5069029	5069	2759.3	MD	35.0	40	0.88	10.0	2.7	Signal	B		B
ABERCORN - NB	DeRenne to 63rd St	5069029	5069	2759.3	PM	31.3	40	0.78	15.3	4.2	Signal	B		B
ABERCORN - NB	63rd St to Columbus	5069030	5069	1448.4	AM	33.9	35	0.97	3.8	1.4	Signal	A		A
ABERCORN - NB	63rd St to Columbus	5069030	5069	1448.4	MD	31.3	35	0.89	3.6	2.3	Signal	A		A
ABERCORN - NB	63rd St to Columbus	5069030	5069	1448.4	PM	32.0	35	0.91	4.2	0.0	Signal	A		A
ABERCORN - NB	Columbus to Washington	5069031	5069	3691.9	AM	34.8	35	1.00	5.3	2.2	Signal	A		A
ABERCORN - NB	Columbus to Washington	5069031	5069	3691.9	MD	36.8	35	1.05	1.5	0.0	Signal	A		A
ABERCORN - NB	Columbus to Washington	5069031	5069	3691.9	PM	32.0	35	0.91	7.8	3.4	Signal	A		A
ABERCORN - NB	Washington to Victory	5069032	5069	1167.4	AM	12.9	35	0.37	38.5	23.2	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ABERCORN - NB	Washington to Victory	5069032	5069	1167.4	MD	11.0	35	0.31	58.1	39.7	Signal	E	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ABERCORN - NB	Washington to Victory	5069032	5069	1167.4	PM	15.6	35	0.45	37.8	23.0	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Improvements limited to Optimizing Signal Operations
ABERCORN - NB	Victory to 37th St	5069033	5069	1716.7	AM	25.0	35	0.71	14.6	3.0	Signal	B		B
ABERCORN - NB	Victory to 37th St	5069033	5069	1716.7	MD	24.3	35	0.69	15.0	2.7	Signal	B		B
ABERCORN - NB	Victory to 37th St	5069033	5069	1716.7	PM	18.6	35	0.53	33.6	14.8	Signal	C		C
ABERCORN - SB	37th St to Victory	5070002	5070	1716.6	AM	14.7	35	0.42	64.1	41.8	Signal	E	Urban Core	Constrained Corridor - Optimize Victory then Abercorn will benefit from more time
ABERCORN - SB	37th St to Victory	5070002	5070	1716.6	MD	18.7	35	0.54	44.0	31.3	Signal	D	Urban Core	Constrained Corridor - Optimize Victory then Abercorn will benefit from more time
ABERCORN - SB	37th St to Victory	5070002	5070	1716.6	PM	17.8	35	0.51	46.2	33.0	Signal	D	Urban Core	Constrained Corridor - Optimize Victory then Abercorn will benefit from more time
ABERCORN - SB	Victory to Washington	5070003	5070	1167.4	AM	24.1	35	0.69	13.3	7.0	Signal	B		B
ABERCORN - SB	Victory to Washington	5070003	5070	1167.4	MD	25.6	35	0.73	13.2	4.7	Signal	B		B
ABERCORN - SB	Victory to Washington	5070003	5070	1167.4	PM	22.3	35	0.64	14.0	4.8	Signal	B		B
ABERCORN - SB	Washington to Columbus	5070004	5070	3691.9	AM	32.6	35	0.93	6.8	2.5	Signal	A		A
ABERCORN - SB	Washington to Columbus	5070004	5070	3691.9	MD	33.1	35	0.95	4.1	0.7	Signal	A		A
ABERCORN - SB	Washington to Columbus	5070004	5070	3691.9	PM	32.5	35	0.93	7.2	6.8	Signal	A		A
ABERCORN - SB	Columbus to 63rd St	5070005	5070	1448.5	AM	33.2	35	0.95	1.5	0.0	Signal	A		A
ABERCORN - SB	Columbus to 63rd St	5070005	5070	1448.5	MD	24.5	35	0.70	17.3	10.3	Signal	B		B
ABERCORN - SB	Columbus to 63rd St	5070005	5070	1448.5	PM	26.8	35	0.77	13.4	8.5	Signal	B		B

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ABERCORN - SB	63rd St to DeRenne	5070006	5070	2759.3	AM	19.5	40	0.49	50.3	32.3	Signal	D	Excessive Intersection Delays	Optimize Derenne and Abercorn, NB right turn lane planned
ABERCORN - SB	63rd St to DeRenne	5070006	5070	2759.3	MD	31.3	40	0.78	14.8	0.0	Signal	B		B
ABERCORN - SB	63rd St to DeRenne	5070006	5070	2759.3	PM	22.7	40	0.57	47.2	31.0	Signal	D	Excessive Intersection Delays	Optimize Derenne and Abercorn, NB right turn lane planned
ABERCORN - SB	DeRenne to Private Drive	5070007	5070	729.3	AM	34.2	40	0.85	2.8	0.0	Signal	A		A
ABERCORN - SB	DeRenne to Private Drive	5070007	5070	729.3	MD	34.6	40	0.87	3.1	0.0	Signal	A		A
ABERCORN - SB	DeRenne to Private Drive	5070007	5070	729.3	PM	32.2	40	0.80	2.5	0.0	Signal	A		A
ABERCORN - SB	Private Drive to Janet	5070008	5070	1124.8	AM	44.8	45	1.00	0.7	0.0	Signal	A		A
ABERCORN - SB	Private Drive to Janet	5070008	5070	1124.8	MD	38.8	45	0.86	2.6	0.0	Signal	A		A
ABERCORN - SB	Private Drive to Janet	5070008	5070	1124.8	PM	26.4	45	0.59	19.5	7.8	Signal	B		B
ABERCORN - SB	Janet to Lee Blvd	5070009	5070	1361.4	AM	41.0	45	0.91	2.1	0.0	Signal	A		A
ABERCORN - SB	Janet to Lee Blvd	5070009	5070	1361.4	MD	39.9	45	0.89	3.2	0.0	Signal	A		A
ABERCORN - SB	Janet to Lee Blvd	5070009	5070	1361.4	PM	35.5	45	0.79	5.7	0.6	Signal	A		A
ABERCORN - SB	Lee Blvd to Jackson	5070010	5070	964.6	AM	45.6	45	1.01	0.9	0.0	Signal	A		A
ABERCORN - SB	Lee Blvd to Jackson	5070010	5070	964.6	MD	20.7	45	0.46	19.0	6.0	Signal	B		B
ABERCORN - SB	Lee Blvd to Jackson	5070010	5070	964.6	PM	30.8	45	0.68	11.5	4.5	Signal	B		B
ABERCORN - SB	Jackson to Stephenson	5070011	5070	1300.9	AM	45.2	45	1.01	1.1	0.0	Signal	A		A
ABERCORN - SB	Jackson to Stephenson	5070011	5070	1300.9	MD	25.6	45	0.57	15.8	3.3	Signal	B		B
ABERCORN - SB	Jackson to Stephenson	5070011	5070	1300.9	PM	16.1	45	0.36	47.9	30.0	Signal	D	Excessive Delays at Stephenson	Coordinate signals between DeRenne and Stephenson
ABERCORN - SB	Stephenson to Eisenhower	5070012	5070	1364.2	AM	32.8	45	0.73	8.1	2.0	Signal	A		A
ABERCORN - SB	Stephenson to Eisenhower	5070012	5070	1364.2	MD	36.5	45	0.81	4.7	0.0	Signal	A		A
ABERCORN - SB	Stephenson to Eisenhower	5070012	5070	1364.2	PM	31.1	45	0.69	9.1	0.0	Signal	A		A
ABERCORN - SB	Eisenhower to Mall Blvd	5070013	5070	1555.4	AM	36.3	45	0.81	6.6	1.3	Signal	A		A
ABERCORN - SB	Eisenhower to Mall Blvd	5070013	5070	1555.4	MD	37.4	45	0.83	5.2	0.0	Signal	A		A
ABERCORN - SB	Eisenhower to Mall Blvd	5070013	5070	1555.4	PM	38.2	45	0.85	4.1	0.0	Signal	A		A
ABERCORN - SB	Mall Blvd to White Bluff	5070014	5070	1536.8	AM	39.7	45	0.88	3.8	0.0	Signal	A		A
ABERCORN - SB	Mall Blvd to White Bluff	5070014	5070	1536.8	MD	44.5	45	0.99	1.2	0.0	Signal	A		A
ABERCORN - SB	Mall Blvd to White Bluff	5070014	5070	1536.8	PM	28.5	45	0.63	16.7	5.6	Signal	B		B
ABERCORN - SB	White Bluff to Mall Driveway	5070015	5070	1234.6	AM	42.6	45	0.95	1.3	0.0	Signal	A		A
ABERCORN - SB	White Bluff to Mall Driveway	5070015	5070	1234.6	MD	40.2	45	0.89	2.1	0.0	Signal	A		A
ABERCORN - SB	White Bluff to Mall Driveway	5070015	5070	1234.6	PM	36.5	45	0.81	4.4	0.0	Signal	A		A
ABERCORN - SB	Mall Driveway to Montgomery Cross	5070016	5070	1638.4	AM	20.7	45	0.46	35.1	23.3	Signal	D	Oversaturated Intersection	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn on Montgomery Cross
ABERCORN - SB	Mall Driveway to Montgomery Cross	5070016	5070	1638.4	MD	34.8	45	0.77	7.2	0.0	Signal	A		A
ABERCORN - SB	Mall Driveway to Montgomery Cross	5070016	5070	1638.4	PM	18.6	45	0.41	54.3	32.0	Signal	D	Oversaturated Intersection	PI #550570 will widen from 2-4 lanes between Abercorn & Abercorn on Montgomery Cross
ABERCORN - SB	Montgomery Cross to Television Circle	5070017	5070	2959.4	AM	32.6	45	0.73	19.6	10.0	Signal	B		B
ABERCORN - SB	Montgomery Cross to Television Circle	5070017	5070	2959.4	MD	40.0	45	0.89	5.6	0.0	Signal	A		A
ABERCORN - SB	Montgomery Cross to Television Circle	5070017	5070	2959.4	PM	37.0	45	0.82	10.1	0.0	Signal	B		B
ABERCORN - SB	Television Circle to Tibet Ave	5070018	5070	1005.4	AM	22.7	45	0.50	15.5	1.7	Signal	B		B
ABERCORN - SB	Television Circle to Tibet Ave	5070018	5070	1005.4	MD	43.2	45	0.96	1.0	0.0	Signal	A		A
ABERCORN - SB	Television Circle to Tibet Ave	5070018	5070	1005.4	PM	26.6	45	0.59	11.3	1.8	Signal	B		B
ABERCORN - SB	Tibet Ave to Wilshire Blvd	5070019	5070	2018.2	AM	43.0	45	0.96	1.8	0.0	Signal	A		A
ABERCORN - SB	Tibet Ave to Wilshire Blvd	5070019	5070	2018.2	MD	50.0	45	1.11	0.0	0.0	Signal	A		A
ABERCORN - SB	Tibet Ave to Wilshire Blvd	5070019	5070	2018.2	PM	41.6	45	0.92	2.5	0.0	Signal	A		A
ABERCORN - SB	Wilshire Blvd to Deerfield	5070020	5070	4300.6	AM	39.0	45	0.87	13.7	11.0	Signal	B		B
ABERCORN - SB	Wilshire Blvd to Deerfield	5070020	5070	4300.6	MD	49.0	45	1.09	0.0	0.0	Signal	A		A
ABERCORN - SB	Wilshire Blvd to Deerfield	5070020	5070	4300.6	PM	33.6	45	0.75	32.1	18.2	Signal	C		C
ABERCORN - SB	Deerfield to Largo	5070021	5070	1613.2	AM	43.5	45	0.97	0.8	0.0	Signal	A		A
ABERCORN - SB	Deerfield to Largo	5070021	5070	1613.2	MD	42.7	45	0.95	1.3	0.0	Signal	A		A
ABERCORN - SB	Deerfield to Largo	5070021	5070	1613.2	PM	29.9	45	0.66	24.2	15.2	Signal	C		C
ABERCORN - SB	Largo to Mercy	5070022	5070	1390.7	AM	47.0	45	1.04	0.0	0.0	Signal	A		A
ABERCORN - SB	Largo to Mercy	5070022	5070	1390.7	MD	47.0	45	1.05	0.6	0.0	Signal	A		A
ABERCORN - SB	Largo to Mercy	5070022	5070	1390.7	PM	22.1	45	0.49	23.0	9.5	Signal	C		C
ABERCORN - SB	Mercy to Science	5070023	5070	3831.4	AM	46.2	45	1.03	1.8	0.0	Signal	A		A
ABERCORN - SB	Mercy to Science	5070023	5070	3831.4	MD	51.3	45	1.14	0.0	0.0	Signal	A		A
ABERCORN - SB	Mercy to Science	5070023	5070	3831.4	PM	29.6	45	0.66	39.0	20.5	Signal	D	Delays throughout corridor	Priority IC - Widen 4-6 from Rio to Truman
ABERCORN - SB	Science to Apache	5070024	5070	1401.2	AM	41.5	45	0.92	1.7	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
ABERCORN - SB	Science to Apache	5070024	5070	1401.2	MD	50.5	45	1.12	0.0	0.0	Signal	A		A
ABERCORN - SB	Science to Apache	5070024	5070	1401.2	PM	29.1	45	0.65	31.3	20.3	Signal	C		C
ABERCORN - SB	Apache to Rio	5070025	5070	2685.1	AM	38.4	45	0.85	17.6	10.5	Signal	B		B
ABERCORN - SB	Apache to Rio	5070025	5070	2685.1	MD	24.3	45	0.54	33.7	22.7	Signal	C		C
ABERCORN - SB	Apache to Rio	5070025	5070	2685.1	PM	15.8	45	0.35	127.9	70.5	Signal	F		F
ABERCORN - SB	Rio to City Limit	5070026	5070	1579.8	AM	48.0	55	0.87	3.6	0.0	Signal	A		A
ABERCORN - SB	Rio to City Limit	5070026	5070	1579.8	MD	47.1	55	0.86	3.3	0.0	Signal	A		A
ABERCORN - SB	Rio to City Limit	5070026	5070	1579.8	PM	36.1	55	0.66	23.2	3.6	Signal	C		C
ABERCORN - SB	City Limit to Veterens Pkwy	5070027	5070	5420.2	AM	57.9	55	1.05	2.0	0.0	City Limit	A		A
ABERCORN - SB	City Limit to Veterens Pkwy	5070027	5070	5420.2	MD	57.2	55	1.04	0.0	0.0	City Limit	A		A
ABERCORN - SB	City Limit to Veterens Pkwy	5070027	5070	5420.2	PM	36.7	55	0.67	72.0	8.8	City Limit	B		B
ABERCORN - SB	Veterens Pkwy to King George	5070028	5070	5532.3	AM	49.8	55	0.90	9.5	5.8	Signal	A		A
ABERCORN - SB	Veterens Pkwy to King George	5070028	5070	5532.3	MD	36.5	55	0.66	38.2	22.0	Signal	D	Westbound Delays to King George	Priority IC - Widen 4-6 between King George and Rio, Priority II - Widen 6-8, widen King George appr
ABERCORN - SB	Veterens Pkwy to King George	5070028	5070	5532.3	PM	27.0	55	0.49	144.9	64.5	Signal	F	Westbound Delays to King George	Priority IC - Widen 4-6 between King George and Rio, Priority II - Widen 6-8, widen King George appr
ABERCORN - SB	King George to Pine Grove	5070029	5070	3413.3	AM	54.1	55	0.98	1.3	0.0	Signal	A		A
ABERCORN - SB	King George to Pine Grove	5070029	5070	3413.3	MD	50.9	55	0.93	3.6	0.0	Signal	A		A
ABERCORN - SB	King George to Pine Grove	5070029	5070	3413.3	PM	45.6	55	0.83	13.7	2.9	Signal	B		B
ABERCORN - SB	Pine Grove to US 17	5070030	5070	7497.5	AM	62.5	55	1.14	0.0	0.0	Signal	A		A
ABERCORN - SB	Pine Grove to US 17	5070030	5070	7497.5	MD	59.8	55	1.09	0.0	0.0	Signal	A		A
ABERCORN - SB	Pine Grove to US 17	5070030	5070	7497.5	PM	60.6	55	1.10	0.6	0.0	Signal	A		A
ABERCORN - SB	US 17 to Gateway	5070031	5070	10230.7	AM	48.0	55	0.87	22.5	18.0	Cross Street	A		A
ABERCORN - SB	US 17 to Gateway	5070031	5070	10230.7	MD	46.8	55	0.85	33.7	28.0	Cross Street	A		A
ABERCORN - SB	US 17 to Gateway	5070031	5070	10230.7	PM	47.7	55	0.87	24.5	19.9	Cross Street	A		A
ABERCORN - SB	I-95 to I-95 SB Ramp	5070033	5070	691	AM	29.5	55	0.54	16.0	9.3	Cross Street	C		C
ABERCORN - SB	I-95 to I-95 SB Ramp	5070033	5070	691	MD	11.6	55	0.21	28.1	17.3	Cross Street	F	Delays between I-95 S and Gateway	Priority II - Operational at I-95, Coordinate signals between I-95 South ramp and Gateway
ABERCORN - SB	I-95 to I-95 SB Ramp	5070033	5070	691	PM	21.8	55	0.40	21.5	9.2	Cross Street	D	Delays between I-95 S and Gateway	Priority II - Operational at I-95, Coordinate signals between I-95 South ramp and Gateway
PRICE - SB	Bay St to Broughton	5072001	5072	743.8	AM	19.6	30	0.65	11.7	5.5	Signal	B		B
PRICE - SB	Bay St to Broughton	5072001	5072	743.8	MD	25.0	30	0.83	4.2	0.5	Signal	A		A
PRICE - SB	Bay St to Broughton	5072001	5072	743.8	PM	16.6	30	0.55	49.5	11.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
PRICE - SB	Broughton to Oglethorpe	5072002	5072	772.9	AM	18.6	30	0.62	10.9	4.6	Signal	B		B
PRICE - SB	Broughton to Oglethorpe	5072002	5072	772.9	MD	11.6	30	0.39	30.0	21.3	Signal	C		C
PRICE - SB	Broughton to Oglethorpe	5072002	5072	772.9	PM	13.9	30	0.46	30.1	20.8	Signal	C		C
PRICE - SB	Oglethorpe to Liberty	5072003	5072	868.4	AM	11.2	30	0.37	34.8	23.4	Signal	C		C
PRICE - SB	Oglethorpe to Liberty	5072003	5072	868.4	MD	31.3	30	1.04	0.5	0.0	Signal	A		A
PRICE - SB	Oglethorpe to Liberty	5072003	5072	868.4	PM	14.7	30	0.49	33.7	22.5	Signal	C		C
PRICE - SB	Liberty to Gordon	5072004	5072	1369.6	AM	37.2	35	1.06	0.8	0.0	Signal	A		A
PRICE - SB	Liberty to Gordon	5072004	5072	1369.6	MD	38.1	35	1.09	0.5	0.0	Signal	A		A
PRICE - SB	Liberty to Gordon	5072004	5072	1369.6	PM	32.2	35	0.92	3.1	0.0	Signal	A		A
PRICE - SB	Gordon to Gwinnett	5072005	5072	1464.5	AM	36.3	35	1.04	2.9	1.8	Flashing Yellow	A		A
PRICE - SB	Gordon to Gwinnett	5072005	5072	1464.5	MD	32.0	35	0.91	3.9	2.0	Flashing Yellow	A		A
PRICE - SB	Gordon to Gwinnett	5072005	5072	1464.5	PM	27.6	35	0.79	12.2	3.8	Flashing Yellow	B		B
PRICE - SB	Gwinnett to Henry	5072006	5072	1521.3	AM	25.1	35	0.72	17.7	12.8	Signal	B		B
PRICE - SB	Gwinnett to Henry	5072006	5072	1521.3	MD	17.7	35	0.51	30.8	19.8	Signal	C		C
PRICE - SB	Gwinnett to Henry	5072006	5072	1521.3	PM	28.8	35	0.82	6.9	0.0	Signal	A		A
PRICE - SB	Henry to Anderson	5072007	5072	298.7	AM	15.9	35	0.45	18.0	12.4	Signal	B		B
PRICE - SB	Henry to Anderson	5072007	5072	298.7	MD	27.2	35	0.78	1.7	0.0	Signal	A		A
PRICE - SB	Henry to Anderson	5072007	5072	298.7	PM	24.8	35	0.71	1.7	0.0	Signal	A		A
PRICE - SB	Anderson to 37th St	5072008	5072	1991.1	AM	30.0	35	0.86	12.4	7.6	Signal	B		B
PRICE - SB	Anderson to 37th St	5072008	5072	1991.1	MD	26.6	35	0.76	22.1	16.3	Signal	C		C
PRICE - SB	Anderson to 37th St	5072008	5072	1991.1	PM	14.5	35	0.41	54.5	39.8	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
PRICE - SB	37th St to Victory	5072009	5072	1781.3	AM	21.3	35	0.61	25.9	16.2	Signal	C		C
PRICE - SB	37th St to Victory	5072009	5072	1781.3	MD	22.4	35	0.64	22.5	13.0	Signal	C		C
PRICE - SB	37th St to Victory	5072009	5072	1781.3	PM	19.2	35	0.55	36.0	21.8	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
STILES - NB	US 17 to Cloverdale	5073001	5073	3195	AM	38.6	35	1.10	0.0	0.0	Cross Street	A		A
STILES - NB	US 17 to Cloverdale	5073001	5073	3195	MD	41.2	35	1.18	0.0	0.0	Cross Street	A		A
STILES - NB	US 17 to Cloverdale	5073001	5073	3195	PM	42.9	35	1.23	0.0	0.0	Cross Street	A		A
STILES - NB	Cloverdale to I-16	5073002	5073	1228	AM	36.0	35	1.03	1.6	0.0	Signal	A		A
STILES - NB	Cloverdale to I-16	5073002	5073	1228	MD	46.4	35	1.33	0.0	0.0	Signal	A		A
STILES - NB	Cloverdale to I-16	5073002	5073	1228	PM	36.4	35	1.04	1.2	0.0	Signal	A		A
STILES - NB	I-16 to Gwinnett	5073003	5073	1940.4	AM	25.6	35	0.73	16.0	6.5	Cross Street	B		B

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
STILES - NB	I-16 to Gwinnett	5073003	5073	1940.4	MD	29.9	35	0.85	8.4	5.5	Cross Street	B		B
STILES - NB	I-16 to Gwinnett	5073003	5073	1940.4	PM	19.9	35	0.57	29.9	19.7	Cross Street	C		C
STILES - NB	Gwinnett to Louisville	5073004	5073	2885.5	AM	29.4	35	0.84	12.0	6.2	Signal	B		B
STILES - NB	Gwinnett to Louisville	5073004	5073	2885.5	MD	27.9	35	0.80	15.6	2.7	Signal	B		B
STILES - NB	Gwinnett to Louisville	5073004	5073	2885.5	PM	28.5	35	0.81	19.8	13.0	Signal	B		B
STILES - SB	Louisville to Gwinnett	5074001	5074	2885.5	AM	27.7	35	0.79	16.0	4.0	Signal	B		B
STILES - SB	Louisville to Gwinnett	5074001	5074	2885.5	MD	32.3	35	0.92	4.8	0.0	Signal	A		A
STILES - SB	Louisville to Gwinnett	5074001	5074	2885.5	PM	27.0	35	0.77	16.9	3.7	Signal	B		B
STILES - SB	Gwinnett to I-16	5074002	5074	1940.4	AM	33.0	35	0.94	5.2	0.0	Signal	A		A
STILES - SB	Gwinnett to I-16	5074002	5074	1940.4	MD	34.2	35	0.98	1.1	0.0	Signal	A		A
STILES - SB	Gwinnett to I-16	5074002	5074	1940.4	PM	35.2	35	1.01	3.9	0.0	Signal	A		A
STILES - SB	I-16 to Cloverdale	5074003	5074	1228.1	AM	37.1	35	1.06	0.6	0.0	Cross Street	A		A
STILES - SB	I-16 to Cloverdale	5074003	5074	1228.1	MD	38.9	35	1.11	0.0	0.0	Cross Street	A		A
STILES - SB	I-16 to Cloverdale	5074003	5074	1228.1	PM	35.3	35	1.01	0.0	0.0	Cross Street	A		A
STILES - SB	Cloverdale to US 17	5074004	5074	3194.9	AM	21.4	35	0.61	50.5	44.5	Signal	D	Delay for left turning vehicles	GDOT will be installing a signal for SB left turns
STILES - SB	Cloverdale to US 17	5074004	5074	3194.9	MD	26.2	35	0.75	20.5	19.0	Signal	C		C
STILES - SB	Cloverdale to US 17	5074004	5074	3194.9	PM	30.8	35	0.88	8.5	5.3	Signal	A		A
EAST BROAD ST - NB	Victory to 40th St	5075001	5075	853	AM	25.7	35	0.73	6.5	0.0	Signal	A		A
EAST BROAD ST - NB	Victory to 40th St	5075001	5075	853	MD	28.8	35	0.82	3.9	0.0	Signal	A		A
EAST BROAD ST - NB	Victory to 40th St	5075001	5075	853	PM	23.9	35	0.68	7.2	0.0	Signal	A		A
EAST BROAD ST - NB	40th St to 37th St	5075002	5075	922	AM	22.2	35	0.64	22.7	13.7	Flashing Yellow	C		C
EAST BROAD ST - NB	40th St to 37th St	5075002	5075	922	MD	16.5	35	0.47	36.6	27.5	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
EAST BROAD ST - NB	40th St to 37th St	5075002	5075	922	PM	16.8	35	0.48	29.9	17.3	Flashing Yellow	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
EAST BROAD ST - NB	37th St to Anderson	5075003	5075	1985.5	AM	24.3	35	0.70	18.1	10.0	Signal	B		B
EAST BROAD ST - NB	37th St to Anderson	5075003	5075	1985.5	MD	22.8	35	0.65	36.7	26.4	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
EAST BROAD ST - NB	37th St to Anderson	5075003	5075	1985.5	PM	26.9	35	0.77	20.6	8.0	Signal	C		C
EAST BROAD ST - NB	Anderson to Henry	5075004	5075	318.2	AM	29.2	35	0.84	1.4	0.0	Signal	A		A
EAST BROAD ST - NB	Anderson to Henry	5075004	5075	318.2	MD	23.5	35	0.67	9.2	6.2	Signal	A		A
EAST BROAD ST - NB	Anderson to Henry	5075004	5075	318.2	PM	28.7	35	0.82	1.7	0.0	Signal	A		A
EAST BROAD ST - NB	Henry to Gwinnett	5075005	5075	1506.2	AM	32.3	35	0.92	6.4	1.5	Signal	A		A
EAST BROAD ST - NB	Henry to Gwinnett	5075005	5075	1506.2	MD	27.1	35	0.77	8.7	1.6	Signal	A		A
EAST BROAD ST - NB	Henry to Gwinnett	5075005	5075	1506.2	PM	26.5	35	0.76	11.1	1.3	Signal	B		B
EAST BROAD ST - NB	Gwinnett to Liberty	5075006	5075	2845.5	AM	24.6	35	0.70	27.4	9.8	Signal	C		C
EAST BROAD ST - NB	Gwinnett to Liberty	5075006	5075	2845.5	MD	26.9	35	0.77	18.9	5.2	Signal	B		B
EAST BROAD ST - NB	Gwinnett to Liberty	5075006	5075	2845.5	PM	23.4	35	0.67	40.9	22.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
EAST BROAD ST - NB	Liberty to President	5075007	5075	1260.2	AM	23.8	33	0.71	12.2	5.8	Signal	B		B
EAST BROAD ST - NB	Liberty to President	5075007	5075	1260.2	MD	16.0	33	0.48	35.9	24.4	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
EAST BROAD ST - NB	Liberty to President	5075007	5075	1260.2	PM	20.1	33	0.60	19.3	9.0	Signal	B		B
EAST BROAD ST - NB	President to Bay St	5075008	5075	1119.2	AM	20.9	30	0.70	11.5	4.5	Signal	B		B
EAST BROAD ST - NB	President to Bay St	5075008	5075	1119.2	MD	23.6	30	0.79	7.6	0.0	Signal	A		A
EAST BROAD ST - NB	President to Bay St	5075008	5075	1119.2	PM	16.6	30	0.55	21.8	9.8	Signal	C		C
EAST BROAD ST - SB	Bay St to President	5076001	5076	1119.2	AM	20.9	30	0.70	13.2	4.6	Signal	B		B
EAST BROAD ST - SB	Bay St to President	5076001	5076	1119.2	MD	20.4	30	0.68	11.7	0.3	Signal	B		B
EAST BROAD ST - SB	Bay St to President	5076001	5076	1119.2	PM	22.5	30	0.75	8.1	0.0	Signal	A		A
EAST BROAD ST - SB	President to Liberty	5076002	5076	1260.3	AM	21.0	33	0.63	20.8	11.1	Signal	C		C
EAST BROAD ST - SB	President to Liberty	5076002	5076	1260.3	MD	25.7	33	0.77	7.7	1.7	Signal	A		A
EAST BROAD ST - SB	President to Liberty	5076002	5076	1260.3	PM	21.4	33	0.64	19.2	6.0	Signal	B		B
EAST BROAD ST - SB	Liberty to Gwinnett	5076003	5076	2845.4	AM	24.6	35	0.70	25.2	10.7	Signal	C		C
EAST BROAD ST - SB	Liberty to Gwinnett	5076003	5076	2845.4	MD	27.6	35	0.79	15.8	7.3	Signal	B		B
EAST BROAD ST - SB	Liberty to Gwinnett	5076003	5076	2845.4	PM	29.3	35	0.84	11.1	2.3	Signal	B		B
HARRY S TRUMAN - NB	DeRenne to Delesseps	5077001	5077	4668.6	AM	47.1	55	0.86	10.1	2.4	Signal	B		B
HARRY S TRUMAN - NB	DeRenne to Delesseps	5077001	5077	4668.6	MD	49.1	55	0.89	10.9	0.0	Signal	B		B
HARRY S TRUMAN - NB	DeRenne to Delesseps	5077001	5077	4668.6	PM	50.6	55	0.92	5.0	0.0	Signal	A		A
HARRY S TRUMAN - NB	Delesseps to Victory	5077002	5077	5655.4	AM	59.3	55	1.08	0.0	0.0	Cross Street	A		A
HARRY S TRUMAN - NB	Delesseps to Victory	5077002	5077	5655.4	MD	61.9	55	1.13	0.0	0.0	Cross Street	A		A
HARRY S TRUMAN - NB	Delesseps to Victory	5077002	5077	5655.4	PM	58.1	55	1.06	0.0	0.0	Cross Street	A		A
HARRY S TRUMAN - NB	Victory to Anderson/Henry	5077003	5077	4994.2	AM	58.6	55	1.07	0.0	0.0	Cross Street	A		A
HARRY S TRUMAN - NB	Victory to Anderson/Henry	5077003	5077	4994.2	MD	64.5	55	1.17	0.0	0.0	Cross Street	A		A
HARRY S TRUMAN - NB	Victory to Anderson/Henry	5077003	5077	4994.2	PM	58.4	55	1.06	0.0	0.0	Cross Street	A		A
HARRY S TRUMAN - NB	Anderson/Henry to President	5077004	5077	6950.7	AM	57.8	55	1.05	0.5	0.0	Cross Street	A		A
HARRY S TRUMAN - NB	Anderson/Henry to President	5077004	5077	6950.7	MD	59.0	55	1.07	0.0	0.0	Cross Street	A		A
HARRY S TRUMAN - NB	Anderson/Henry to President	5077004	5077	6950.7	PM	56.0	55	1.02	0.8	0.0	Cross Street	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
HARRY S TRUMAN - NB	President to Islands Expressway	5077005	5077	1769.5	AM	26.1	20	1.31	14.3	21.5	Cross Street	A		A
HARRY S TRUMAN - NB	President to Islands Expressway	5077005	5077	1769.5	MD	39.2	20	1.96	0.0	0.0	Cross Street	A		A
HARRY S TRUMAN - NB	President to Islands Expressway	5077005	5077	1769.5	PM	15.5	20	0.77	27.9	40.3	Cross Street	C		C
HARRY S TRUMAN - SB	Islands Expressway to President	5078001	5078	1172	AM	31.9	20	1.60	0.0	0.0	Signal	A		A
HARRY S TRUMAN - SB	Islands Expressway to President	5078001	5078	1172	MD	35.6	20	1.78	0.0	0.0	Signal	A		A
HARRY S TRUMAN - SB	Islands Expressway to President	5078001	5078	1172	PM	30.3	20	1.52	0.0	0.0	Signal	A		A
HARRY S TRUMAN - SB	President to Anderson/Henry	5078002	5078	6950.7	AM	54.0	55	0.98	4.3	0.0	Cross Street	A		A
HARRY S TRUMAN - SB	President to Anderson/Henry	5078002	5078	6950.7	MD	60.7	55	1.10	0.0	0.0	Cross Street	A		A
HARRY S TRUMAN - SB	President to Anderson/Henry	5078002	5078	6950.7	PM	53.6	55	0.98	3.5	0.0	Cross Street	A		A
HARRY S TRUMAN - SB	Anderson/Henry to Victory	5078003	5078	4994.2	AM	60.0	55	1.09	0.0	0.0	Cross Street	A		A
HARRY S TRUMAN - SB	Anderson/Henry to Victory	5078003	5078	4994.2	MD	64.5	55	1.17	0.0	0.0	Cross Street	A		A
HARRY S TRUMAN - SB	Anderson/Henry to Victory	5078003	5078	4994.2	PM	59.0	55	1.07	0.0	0.0	Cross Street	A		A
HARRY S TRUMAN - SB	Victory to Delesseps	5078004	5078	5655.4	AM	58.5	55	1.06	0.0	0.0	Cross Street	A		A
HARRY S TRUMAN - SB	Victory to Delesseps	5078004	5078	5655.4	MD	64.7	55	1.18	0.0	0.0	Cross Street	A		A
HARRY S TRUMAN - SB	Victory to Delesseps	5078004	5078	5655.4	PM	56.6	55	1.03	0.4	0.0	Cross Street	A		A
HARRY S TRUMAN - SB	Delesseps to DeRenne	5078005	5078	4746.1	AM	35.8	55	0.65	41.4	23.2	Cross Street	B		B
HARRY S TRUMAN - SB	Delesseps to DeRenne	5078005	5078	4746.1	MD	48.0	55	0.87	8.5	0.0	Cross Street	A		A
HARRY S TRUMAN - SB	Delesseps to DeRenne	5078005	5078	4746.1	PM	27.1	55	0.49	59.7	34.0	Cross Street	C		C
SH 25 (CROSSGATE/BOURNE) - NB	SH 21 to SH 25 Merge	5079002	5079	559.9	AM	21.0	45	0.47	12.9	4.5	Signal	B		B
SH 25 (CROSSGATE/BOURNE) - NB	SH 21 to SH 25 Merge	5079002	5079	559.9	MD	19.8	45	0.44	19.0	10.5	Signal	B		B
SH 25 (CROSSGATE/BOURNE) - NB	SH 25 Merge to SH 21 Spur	5079003	5079	3088.4	AM	41.3	45	0.92	4.3	0.0	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - NB	SH 25 Merge to SH 21 Spur	5079003	5079	3088.4	MD	41.1	45	0.91	6.9	3.4	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - NB	SH 25 Merge to SH 21 Spur	5079003	5079	3088.4	PM	26.7	45	0.59	47.9	29.2	Signal	D	Sufficient Roadway Capacity but High Delays	Signal Operations - High Truck Volumes and construction detour, study again next CMS
SH 25 (CROSSGATE/BOURNE) - NB	SH 21 Spur to Port Authority	5079004	5079	2073.9	AM	26.3	35	0.75	80.8	58.0	Signal	F	Sufficient Roadway Capacity but High Delays	Signal Operations - High Truck Volumes and construction detour, study again next CMS
SH 25 (CROSSGATE/BOURNE) - NB	SH 21 Spur to Port Authority	5079004	5079	2073.9	MD	24.8	35	0.71	88.1	66.8	Signal	F	Sufficient Roadway Capacity but High Delays	Signal Operations - High Truck Volumes and construction detour, study again next CMS
SH 25 (CROSSGATE/BOURNE) - NB	SH 21 Spur to Port Authority	5079004	5079	2073.9	PM	31.9	35	0.91	4.1	0.0	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - NB	Port Authority to SH 307 - Bourne	5079005	5079	5146.8	AM	33.1	35	0.95	20.4	21.4	Signal	C		C
SH 25 (CROSSGATE/BOURNE) - NB	Port Authority to SH 307 - Bourne	5079005	5079	5146.8	MD	31.1	35	0.89	22.5	9.2	Signal	C		C
SH 25 (CROSSGATE/BOURNE) - NB	Port Authority to SH 307 - Bourne	5079005	5079	5146.8	PM	37.1	35	1.06	0.0	0.0	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - NB	Cross Gate to SH 30	5079009	5079	2986.7	AM	34.3	35	0.98	6.2	0.0	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - NB	Cross Gate to SH 30	5079009	5079	2986.7	MD	35.2	35	1.01	4.3	0.0	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - NB	Cross Gate to SH 30	5079009	5079	2986.7	PM	29.6	35	0.85	12.5	3.8	Signal	B		B

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
SH 25 (CROSSGATE/BOURNE) - NB	SH 30 to Chatham County Line	5079010	5079	14432.1	AM	51.6	44	1.17	0.0	0.0	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - NB	SH 30 to Chatham County Line	5079010	5079	14432.1	MD	44.0	44	1.00	1.5	0.0	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - NB	SH 30 to Chatham County Line	5079010	5079	14432.1	PM	48.4	44	1.10	0.9	0.0	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - SB	Chatham County Line to SH 30	5080002	5080	14432.2	AM	51.2	44	1.16	0.0	2.8	Cross Street	A		A
SH 25 (CROSSGATE/BOURNE) - SB	Chatham County Line to SH 30	5080002	5080	14432.2	MD	55.7	44	1.26	0.0	0.0	Cross Street	A		A
SH 25 (CROSSGATE/BOURNE) - SB	Chatham County Line to SH 30	5080002	5080	14432.2	PM	50.0	44	1.13	4.7	2.6	Cross Street	A		A
SH 25 (CROSSGATE/BOURNE) - SB	SH 30 to Cross Gate	5080003	5080	2986.7	AM	33.6	35	0.96	8.2	1.3	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - SB	SH 30 to Cross Gate	5080003	5080	2986.7	MD	49.1	35	1.40	0.0	0.0	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - SB	SH 30 to Cross Gate	5080003	5080	2986.7	PM	37.2	35	1.06	0.5	0.0	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - SB	SH 307 - Bourne to Port Authority	5080007	5080	5146.7	AM	41.2	35	1.18	1.9	7.2	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - SB	SH 307 - Bourne to Port Authority	5080007	5080	5146.7	MD	36.1	35	1.03	6.1	7.0	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - SB	SH 307 - Bourne to Port Authority	5080007	5080	5146.7	PM	36.8	35	1.05	7.6	7.8	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - SB	Port Authority to SH 21 Spur	5080008	5080	2073.9	AM	25.4	35	0.73	33.8	25.2	Signal	C		C
SH 25 (CROSSGATE/BOURNE) - SB	Port Authority to SH 21 Spur	5080008	5080	2073.9	MD	27.8	35	0.80	11.0	0.0	Signal	B		B
SH 25 (CROSSGATE/BOURNE) - SB	Port Authority to SH 21 Spur	5080008	5080	2073.9	PM	22.6	35	0.65	26.9	14.0	Signal	C		C
SH 25 (CROSSGATE/BOURNE) - SB	SH 21 Spur to SH 25 Merge	5080009	5080	3088.5	AM	42.6	45	0.95	2.9	0.4	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - SB	SH 21 Spur to SH 25 Merge	5080009	5080	3088.5	MD	41.6	45	0.93	12.2	8.3	Signal	B		B
SH 25 (CROSSGATE/BOURNE) - SB	SH 21 Spur to SH 25 Merge	5080009	5080	3088.5	PM	40.9	45	0.91	5.7	0.0	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - SB	SH 25 Merge to SH 21	5080010	5080	559.8	AM	28.1	45	0.63	5.1	0.0	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - SB	SH 25 Merge to SH 21	5080010	5080	559.8	MD	30.3	45	0.67	3.7	0.0	Signal	A		A
SH 25 (CROSSGATE/BOURNE) - SB	SH 25 Merge to SH 21	5080010	5080	559.8	PM	21.0	45	0.47	9.0	0.0	Signal	A		A
BLOOMINGDALE/CHERRY - NB	I-16 to US 80	5081002	5081	15517.2	AM	38.4	42	0.91	26.0	22.3	Cross Street	B		B
BLOOMINGDALE/CHERRY - NB	I-16 to US 80	5081002	5081	15517.2	MD	38.3	42	0.91	27.8	19.0	Cross Street	B		B
BLOOMINGDALE/CHERRY - NB	I-16 to US 80	5081002	5081	15517.2	PM	37.7	42	0.89	31.3	23.7	Cross Street	B		B

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BLOOMINGDALE/CHERRY - SB	US 80 to I-16	5082001	5082	15517.2	AM	43.3	42	1.03	0.0	0.0	TWSC	A		A
BLOOMINGDALE/CHERRY - SB	US 80 to I-16	5082001	5082	15517.2	MD	44.7	42	1.06	0.1	0.0	TWSC	A		A
BLOOMINGDALE/CHERRY - SB	US 80 to I-16	5082001	5082	15517.2	PM	40.5	42	0.96	15.9	3.6	TWSC	C		C
JOHNNY MERCER - EB	US 80 to White Marsh	5083001	5083	4488	AM	40.3	45	0.90	8.2	0.0	Signal	A		A
JOHNNY MERCER - EB	US 80 to White Marsh	5083001	5083	4488	MD	40.5	45	0.90	7.8	0.0	Signal	A		A
JOHNNY MERCER - EB	US 80 to White Marsh	5083001	5083	4488	PM	38.6	45	0.86	12.8	4.3	Signal	B		B
JOHNNY MERCER - EB	White Marsh to Bryan Woods	5083002	5083	4421.3	AM	47.4	45	1.05	0.7	0.0	Signal	A		A
JOHNNY MERCER - EB	White Marsh to Bryan Woods	5083002	5083	4421.3	MD	45.1	45	1.00	4.0	0.0	Signal	A		A
JOHNNY MERCER - EB	White Marsh to Bryan Woods	5083002	5083	4421.3	PM	40.8	45	0.91	7.6	1.0	Signal	A		A
JOHNNY MERCER - EB	Bryan Woods to Spence Grayson River	5083003	5083	3578.7	AM	50.9	45	1.13	0.0	0.0	Signal	A		A
JOHNNY MERCER - EB	Bryan Woods to Spence Grayson River	5083003	5083	3578.7	MD	49.4	45	1.10	0.0	0.0	Signal	A		A
JOHNNY MERCER - EB	Bryan Woods to Spence Grayson River	5083003	5083	3578.7	PM	47.6	45	1.06	1.2	0.0	Signal	A		A
JOHNNY MERCER - EB	Spence Grayson River to Walgreens	5083004	5083	2284.8	AM	50.6	45	1.12	0.0	0.0	Cross Street	A		A
JOHNNY MERCER - EB	Spence Grayson River to Walgreens	5083004	5083	2284.8	MD	48.3	45	1.07	0.0	0.0	Cross Street	A		A
JOHNNY MERCER - EB	Spence Grayson River to Walgreens	5083004	5083	2284.8	PM	34.4	45	0.76	11.7	1.5	Cross Street	B		B
JOHNNY MERCER - EB	Walgreens to Wilminghton Island	5083005	5083	1348.8	AM	31.0	35	0.89	6.5	4.4	Signal	A		A
JOHNNY MERCER - EB	Walgreens to Wilminghton Island	5083005	5083	1348.8	MD	32.2	35	0.92	2.3	0.0	Signal	A		A
JOHNNY MERCER - EB	Walgreens to Wilminghton Island	5083005	5083	1348.8	PM	13.3	35	0.38	49.0	28.3	Signal	D	Canopy - Constrained Corridor	Constrained Corridor - Optimize Signal, add channelized NB right turn, Access Mgmt with WB cont flow
JOHNNY MERCER - EB	Wilminghton Island to Penn Waller	5083006	5083	2492.4	AM	25.4	35	0.73	20.5	11.8	Signal	C		C
JOHNNY MERCER - EB	Wilminghton Island to Penn Waller	5083006	5083	2492.4	MD	31.2	35	0.89	6.4	0.0	Signal	A		A
JOHNNY MERCER - EB	Wilminghton Island to Penn Waller	5083006	5083	2492.4	PM	21.8	35	0.62	31.1	11.0	Signal	C		C
JOHNNY MERCER - EB	Penn Waller to Walthour	5083007	5083	3932.3	AM	36.2	35	1.03	2.4	0.0	Signal	A		A
JOHNNY MERCER - EB	Penn Waller to Walthour	5083007	5083	3932.3	MD	37.7	35	1.08	2.5	0.0	Signal	A		A
JOHNNY MERCER - EB	Penn Waller to Walthour	5083007	5083	3932.3	PM	34.8	35	1.00	2.0	0.0	Signal	A		A
JOHNNY MERCER - EB	Walthour to US 80	5083008	5083	2908.6	AM	30.3	35	0.87	9.6	5.3	Cross Street	A		A
JOHNNY MERCER - EB	Walthour to US 80	5083008	5083	2908.6	MD	25.9	35	0.74	21.6	15.3	Cross Street	B		B
JOHNNY MERCER - EB	Walthour to US 80	5083008	5083	2908.6	PM	28.4	35	0.81	14.7	9.5	Cross Street	B		B
JOHNNY MERCER - WB	US 80 to Walthour	5084002	5084	2908.6	AM	37.5	35	1.07	3.9	0.6	Signal	A		A
JOHNNY MERCER - WB	US 80 to Walthour	5084002	5084	2908.6	MD	35.1	35	1.00	1.6	0.0	Signal	A		A
JOHNNY MERCER - WB	US 80 to Walthour	5084002	5084	2908.6	PM	34.8	35	0.99	1.3	0.0	Signal	A		A
JOHNNY MERCER - WB	Walthour to Penn Waller	5084003	5084	3932.3	AM	33.1	35	0.95	12.8	9.0	Cross Street	A		A
JOHNNY MERCER - WB	Walthour to Penn Waller	5084003	5084	3932.3	MD	31.4	35	0.90	9.3	4.0	Cross Street	A		A
JOHNNY MERCER - WB	Walthour to Penn Waller	5084003	5084	3932.3	PM	30.8	35	0.88	10.9	5.0	Cross Street	A		A
JOHNNY MERCER - WB	Penn Waller to Wilminghton Island	5084004	5084	2492.4	AM	26.0	35	0.74	31.6	20.6	Signal	C		C
JOHNNY MERCER - WB	Penn Waller to Wilminghton Island	5084004	5084	2492.4	MD	35.4	35	1.01	1.4	0.0	Signal	A		A
JOHNNY MERCER - WB	Penn Waller to Wilminghton Island	5084004	5084	2492.4	PM	22.8	35	0.65	30.5	18.3	Signal	C		C
JOHNNY MERCER - WB	Wilminghton Island to Walgreens	5084005	5084	1348.8	AM	39.6	35	1.13	0.0	0.0	Signal	A		A
JOHNNY MERCER - WB	Wilminghton Island to Walgreens	5084005	5084	1348.8	MD	32.9	35	0.94	3.2	0.0	Signal	A		A
JOHNNY MERCER - WB	Wilminghton Island to Walgreens	5084005	5084	1348.8	PM	24.7	35	0.71	13.8	7.7	Signal	B		B
JOHNNY MERCER - WB	Walgreens to Spence Grayson River	5084006	5084	2284.8	AM	51.1	45	1.13	0.0	0.0	Signal	A		A
JOHNNY MERCER - WB	Walgreens to Spence Grayson River	5084006	5084	2284.8	MD	45.5	45	1.01	0.3	0.0	Signal	A		A
JOHNNY MERCER - WB	Walgreens to Spence Grayson River	5084006	5084	2284.8	PM	47.5	45	1.06	0.0	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
JOHNNY MERCER - WB	Spence Grayson River to Bryan Woods	5084007	5084	3578.7	AM	51.4	45	1.14	0.4	0.0	Cross Street	A		A
JOHNNY MERCER - WB	Spence Grayson River to Bryan Woods	5084007	5084	3578.7	MD	49.6	45	1.10	1.9	0.0	Cross Street	A		A
JOHNNY MERCER - WB	Spence Grayson River to Bryan Woods	5084007	5084	3578.7	PM	46.4	45	1.03	4.1	0.0	Cross Street	A		A
JOHNNY MERCER - WB	Bryan Woods to White Marsh	5084008	5084	4421.3	AM	47.1	45	1.05	3.6	0.0	Signal	A		A
JOHNNY MERCER - WB	Bryan Woods to White Marsh	5084008	5084	4421.3	MD	46.8	45	1.04	0.5	0.0	Signal	A		A
JOHNNY MERCER - WB	Bryan Woods to White Marsh	5084008	5084	4421.3	PM	44.6	45	0.99	3.3	0.0	Signal	A		A
JOHNNY MERCER - WB	White Marsh to US 80	5084009	5084	4488	AM	28.8	45	0.64	41.7	25.2	Signal	D	Canopy - Constrained Corridor	Priority II - Operational, consider WB US 80 Continuous movement
JOHNNY MERCER - WB	White Marsh to US 80	5084009	5084	4488	MD	40.0	45	0.89	16.9	11.0	Signal	B		B
JOHNNY MERCER - WB	White Marsh to US 80	5084009	5084	4488	PM	27.2	45	0.61	44.8	30.3	Signal	D	Canopy - Constrained Corridor	Priority II - Operational, consider WB US 80 Continuous movement
WALTHOUR/WILLMINGTON ISLAND- NB	Johnny Mercer to Wilminghton Island	5085001	5085	1219.7	AM	34.1	35	0.97	1.3	0.0	Signal	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Johnny Mercer to Wilminghton Island	5085001	5085	1219.7	MD	48.2	35	1.38	0.0	0.0	Signal	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Johnny Mercer to Wilminghton Island	5085001	5085	1219.7	PM	45.6	35	1.30	0.0	0.0	Signal	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Wilminghton Island to Winchester	5085002	5085	8190.4	AM	36.8	35	1.05	5.3	0.0	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Wilminghton Island to Winchester	5085002	5085	8190.4	MD	39.1	35	1.12	1.3	0.0	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Wilminghton Island to Winchester	5085002	5085	8190.4	PM	35.8	35	1.02	2.5	0.0	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Winchester to East Blvd	5085003	5085	9355.4	AM	37.9	33	1.16	0.0	0.0	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Winchester to East Blvd	5085003	5085	9355.4	MD	38.3	33	1.17	0.0	0.0	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Winchester to East Blvd	5085003	5085	9355.4	PM	33.9	33	1.03	0.9	1.3	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	East Blvd to Stone St	5085004	5085	3599.7	AM	25.4	25	1.02	0.4	1.5	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	East Blvd to Stone St	5085004	5085	3599.7	MD	23.6	25	0.94	7.8	5.0	Cross Street	B		B
WALTHOUR/WILLMINGTON ISLAND- NB	East Blvd to Stone St	5085004	5085	3599.7	PM	23.3	25	0.93	8.4	3.0	Cross Street	B		B
WALTHOUR/WILLMINGTON ISLAND- NB	Stone St to Penn Waller	5085005	5085	11905.6	AM	36.6	35	1.05	4.9	0.0	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Stone St to Penn Waller	5085005	5085	11905.6	MD	38.5	35	1.11	0.6	0.0	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Stone St to Penn Waller	5085005	5085	11905.6	PM	33.2	35	0.95	19.7	0.5	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Penn Waller to Moss	5085006	5085	2328.7	AM	39.9	40	1.00	2.3	0.0	Flashing Yellow	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Penn Waller to Moss	5085006	5085	2328.7	MD	43.5	40	1.09	0.2	0.0	Flashing Yellow	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Penn Waller to Moss	5085006	5085	2328.7	PM	39.2	40	0.98	1.7	0.0	Flashing Yellow	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Moss to Johnny Mercer	5085007	5085	7954.9	AM	33.2	40	0.83	30.8	12.5	Cross Street	B		B
WALTHOUR/WILLMINGTON ISLAND- NB	Moss to Johnny Mercer	5085007	5085	7954.9	MD	40.1	40	1.00	2.9	3.0	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- NB	Moss to Johnny Mercer	5085007	5085	7954.9	PM	33.4	40	0.84	27.3	9.3	Cross Street	B		B
WALTHOUR/WILLMINGTON ISLAND- SB	Johnny Mercer to Moss	5086001	5086	7954.9	AM	39.4	40	0.98	2.1	0.0	TWSC	A		A
WALTHOUR/WILLMINGTON ISLAND- SB	Johnny Mercer to Moss	5086001	5086	7954.9	MD	38.1	40	0.95	6.8	0.0	TWSC	A		A
WALTHOUR/WILLMINGTON ISLAND- SB	Johnny Mercer to Moss	5086001	5086	7954.9	PM	38.8	40	0.97	4.8	0.0	TWSC	A		A
WALTHOUR/WILLMINGTON ISLAND- SB	Moss to Penn Waller	5086002	5086	2328.6	AM	43.1	40	1.08	0.0	0.0	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- SB	Moss to Penn Waller	5086002	5086	2328.6	MD	43.2	40	1.08	0.1	0.0	Cross Street	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
WALTHOUR/WILLMINGTON ISLAND- SB	Moss to Penn Waller	5086002	5086	2328.6	PM	41.2	40	1.03	0.4	0.0	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- SB	Penn Waller to Stone St	5086003	5086	11905.6	AM	35.6	35	1.02	6.4	0.3	Flashing Yellow	A		A
WALTHOUR/WILLMINGTON ISLAND- SB	Penn Waller to Stone St	5086003	5086	11905.6	MD	36.2	35	1.04	9.6	0.0	Flashing Yellow	A		A
WALTHOUR/WILLMINGTON ISLAND- SB	Penn Waller to Stone St	5086003	5086	11905.6	PM	34.3	35	0.99	3.2	1.7	Flashing Yellow	A		A
WALTHOUR/WILLMINGTON ISLAND- SB	Stone St to East Blvd	5086004	5086	3599.8	AM	26.4	25	1.06	0.0	2.3	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- SB	Stone St to East Blvd	5086004	5086	3599.8	MD	23.8	25	0.95	4.9	5.0	Cross Street	B		B
WALTHOUR/WILLMINGTON ISLAND- SB	Stone St to East Blvd	5086004	5086	3599.8	PM	22.6	25	0.90	13.7	2.3	Cross Street	B		B
WALTHOUR/WILLMINGTON ISLAND- SB	East Blvd to Winchester	5086005	5086	9355.4	AM	35.9	33	1.09	0.0	0.0	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- SB	East Blvd to Winchester	5086005	5086	9355.4	MD	35.1	33	1.07	0.0	0.0	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- SB	East Blvd to Winchester	5086005	5086	9355.4	PM	32.9	33	1.00	3.9	0.0	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- SB	Winchester to Wilminghton Island	5086006	5086	8190.4	AM	37.8	35	1.08	3.0	1.3	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- SB	Winchester to Wilminghton Island	5086006	5086	8190.4	MD	38.3	35	1.09	3.6	0.0	Cross Street	A		A
WALTHOUR/WILLMINGTON ISLAND- SB	Winchester to Wilminghton Island	5086006	5086	8190.4	PM	34.4	35	0.98	7.6	0.0	Cross Street	B		B
WALTHOUR/WILLMINGTON ISLAND- SB	Wilminghton Island to Johnny Mercer	5086007	5086	1219.7	AM	16.7	35	0.48	38.8	25.7	Cross Street	D	Canopy - Constrained Corridor	Constrained Corridor - Optimize Signal, add channelized NB right turn, Access Mgmt with WB cont flow
WALTHOUR/WILLMINGTON ISLAND- SB	Wilminghton Island to Johnny Mercer	5086007	5086	1219.7	MD	23.8	35	0.68	12.9	5.5	Cross Street	C		C
WALTHOUR/WILLMINGTON ISLAND- SB	Wilminghton Island to Johnny Mercer	5086007	5086	1219.7	PM	22.3	35	0.64	13.1	2.0	Cross Street	C		C
BRYAN WOODS - EB	Johnny Mercer to US 80	5087001	5087	4918.8	AM	28.5	45	0.63	46.0	32.0	Signal	D	Minor Approach at Island Expressway	Cross Street delays expected
BRYAN WOODS - EB	Johnny Mercer to US 80	5087001	5087	4918.8	MD	32.9	45	0.73	27.9	16.0	Signal	C		C
BRYAN WOODS - EB	Johnny Mercer to US 80	5087001	5087	4918.8	PM	37.2	45	0.83	15.6	2.3	Signal	B		B
BRYAN WOODS - WB	US 80 to Johnny Mercer	5088002	5088	4918.8	AM	40.4	45	0.90	8.8	3.2	Signal	A		A
BRYAN WOODS - WB	US 80 to Johnny Mercer	5088002	5088	4918.8	MD	36.3	45	0.81	18.4	8.5	Signal	B		B
BRYAN WOODS - WB	US 80 to Johnny Mercer	5088002	5088	4918.8	PM	36.4	45	0.81	20.4	7.7	Signal	C		C
HODGESON MEMORIAL - NB	Montgomery Cross to Mall Way	5089002	5089	2054.7	AM	40.4	35	1.15	0.0	0.0	Signal	A		A
HODGESON MEMORIAL - NB	Montgomery Cross to Mall Way	5089002	5089	2054.7	MD	38.7	35	1.10	0.1	0.0	Signal	A		A
HODGESON MEMORIAL - NB	Montgomery Cross to Mall Way	5089002	5089	2054.7	PM	38.3	35	1.10	0.0	0.0	Signal	A		A
HODGESON MEMORIAL - NB	Mall Way to Mall Blvd	5089003	5089	500.3	AM	21.9	35	0.63	14.3	10.0	Signal	B		B
HODGESON MEMORIAL - NB	Mall Way to Mall Blvd	5089003	5089	500.3	MD	19.4	35	0.55	11.8	6.5	Signal	B		B
HODGESON MEMORIAL - NB	Mall Way to Mall Blvd	5089003	5089	500.3	PM	8.7	35	0.25	38.2	27.7	Signal	D	Short distance between Mall Way and Mall Blvd	Signal Operations - Coordinate signals between Mall Way and Mall Blvd
HODGESON MEMORIAL - NB	Mall Blvd to Eisenhower	5089004	5089	2364.9	AM	35.0	35	1.00	1.2	0.0	Signal	A		A
HODGESON MEMORIAL - NB	Mall Blvd to Eisenhower	5089004	5089	2364.9	MD	22.9	35	0.65	40.7	33.0	Signal	D	Delays due to lack of progression on Eisenhower	Improving Eisenhower will improve Hodgson
HODGESON MEMORIAL - NB	Mall Blvd to Eisenhower	5089004	5089	2364.9	PM	30.9	35	0.88	6.0	1.5	Signal	A		A
HODGESON MEMORIAL - NB	Eisenhower to Stephenson	5089005	5089	1368.5	AM	32.5	35	0.93	2.6	0.0	Signal	A		A
HODGESON MEMORIAL - NB	Eisenhower to Stephenson	5089005	5089	1368.5	MD	27.1	35	0.77	8.4	3.0	Signal	A		A
HODGESON MEMORIAL - NB	Eisenhower to Stephenson	5089005	5089	1368.5	PM	32.4	35	0.93	2.4	0.0	Signal	A		A
HODGESON MEMORIAL - SB	Stephenson to Eisenhower	5090001	5090	1368.5	AM	10.5	35	0.30	66.8	43.0	Signal	E	Currently under construction on Stephenson	Study next CMS
HODGESON MEMORIAL - SB	Stephenson to Eisenhower	5090001	5090	1368.5	MD	9.4	35	0.27	70.4	56.5	Signal	E	Currently under construction on Stephenson	Study next CMS
HODGESON MEMORIAL - SB	Stephenson to Eisenhower	5090001	5090	1368.5	PM	9.3	35	0.26	77.5	61.3	Signal	E	Currently under construction on Stephenson	Study next CMS
HODGESON MEMORIAL - SB	Eisenhower to Mall Blvd	5090002	5090	2364.9	AM	40.4	35	1.15	0.5	0.0	Signal	A		A
HODGESON MEMORIAL - SB	Eisenhower to Mall Blvd	5090002	5090	2364.9	MD	25.8	35	0.74	30.1	26.0	Signal	C		C
HODGESON MEMORIAL - SB	Eisenhower to Mall Blvd	5090002	5090	2364.9	PM	22.4	35	0.64	33.6	23.8	Signal	C		C
HODGESON MEMORIAL - SB	Mall Blvd to Mall Way	5090003	5090	500.3	AM	35.8	35	1.02	0.4	0.0	Signal	A		A
HODGESON MEMORIAL - SB	Mall Blvd to Mall Way	5090003	5090	500.3	MD	24.8	35	0.71	9.9	6.5	Signal	A		A
HODGESON MEMORIAL - SB	Mall Blvd to Mall Way	5090003	5090	500.3	PM	9.8	35	0.28	28.3	16.7	Signal	C		C
HODGESON MEMORIAL - SB	Mall Way to Montgomery Cross	5090004	5090	2054.7	AM	24.4	35	0.70	42.4	36.0	Signal	D	Signal Operations, good capacity for all mvmts	Optimize signal timing at Montgomery
HODGESON MEMORIAL - SB	Mall Way to Montgomery Cross	5090004	5090	2054.7	MD	23.5	35	0.67	19.5	16.5	Signal	B		B

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
HODGESON MEMORIAL - SB	Mall Way to Montgomery Cross	5090004	5090	2054.7	PM	24.9	35	0.71	24.2	17.3	Signal	C		C
STEPHENSON - EB	White Bluff to Abercorn	5091001	5091	793.1	AM	18.4	30	0.61	15.0	10.3	Signal	B		B
STEPHENSON - EB	White Bluff to Abercorn	5091001	5091	793.1	MD	18.6	30	0.62	61.2	5.5	Signal	E	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
STEPHENSON - EB	White Bluff to Abercorn	5091001	5091	793.1	PM	6.2	30	0.21	70.3	55.8	Signal	E	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
STEPHENSON - EB	Abercorn to Habersham	5091002	5091	702.3	AM	30.0	30	1.00	1.1	0.0	Signal	A		A
STEPHENSON - EB	Abercorn to Habersham	5091002	5091	702.3	MD	25.5	30	0.85	2.8	0.0	Signal	A		A
STEPHENSON - EB	Abercorn to Habersham	5091002	5091	702.3	PM	20.8	30	0.69	9.1	1.3	Signal	A		A
STEPHENSON - EB	Habersham to Hodgeson Memorial	5091003	5091	1012.3	AM	13.1	25	0.52	29.9	26.0	Signal	C		C
STEPHENSON - EB	Habersham to Hodgeson Memorial	5091003	5091	1012.3	MD	19.3	25	0.77	8.6	5.5	Signal	A		A
STEPHENSON - EB	Habersham to Hodgeson Memorial	5091003	5091	1012.3	PM	17.2	25	0.69	13.0	2.0	Signal	B		B
STEPHENSON - EB	Hodgeson Memorial to Waters	5091004	5091	2682.4	AM	22.9	25	0.92	15.6	23.0	Signal	B		B
STEPHENSON - EB	Hodgeson Memorial to Waters	5091004	5091	2682.4	MD	16.5	25	0.66	36.9	38.0	Signal	D	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
STEPHENSON - EB	Hodgeson Memorial to Waters	5091004	5091	2682.4	PM	21.7	25	0.87	20.8	16.0	Signal	C		C
STEPHENSON - WB	Waters to Hodgeson Memorial	5092002	5092	2682.3	AM	20.3	25	0.81	16.8	22.0	Signal	B		B
STEPHENSON - WB	Waters to Hodgeson Memorial	5092002	5092	2682.3	MD	23.8	25	0.95	14.0	13.5	Signal	B		B
STEPHENSON - WB	Waters to Hodgeson Memorial	5092002	5092	2682.3	PM	24.8	25	0.99	0.7	1.0	Signal	A		A
STEPHENSON - WB	Hodgeson Memorial to Habersham	5092003	5092	1012.3	AM	18.3	25	0.73	22.0	15.0	Signal	C		C
STEPHENSON - WB	Hodgeson Memorial to Habersham	5092003	5092	1012.3	MD	12.6	25	0.51	31.9	27.5	Signal	C		C
STEPHENSON - WB	Hodgeson Memorial to Habersham	5092003	5092	1012.3	PM	10.6	25	0.43	43.8	26.8	Signal	D	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
STEPHENSON - WB	Habersham to Abercorn	5092004	5092	702.3	AM	5.4	30	0.18	99.6	78.0	Signal	F	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
STEPHENSON - WB	Habersham to Abercorn	5092004	5092	702.3	MD	9.9	30	0.33	47.3	31.0	Signal	D	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
STEPHENSON - WB	Habersham to Abercorn	5092004	5092	702.3	PM	10.8	30	0.36	44.2	32.3	Signal	D	Currently under construction	Study next CMS, Optimize intersection with recent construction on east leg
STEPHENSON - WB	Abercorn to White Bluff	5092005	5092	793.1	AM	9.5	30	0.32	49.5	37.3	Signal	D	Consistent WB Delays	Consider widening WB approach to allow 2 through lanes
STEPHENSON - WB	Abercorn to White Bluff	5092005	5092	793.1	MD	10.5	30	0.35	35.8	27.5	Signal	D	Consistent WB Delays	Consider widening WB approach to allow 2 through lanes
STEPHENSON - WB	Abercorn to White Bluff	5092005	5092	793.1	PM	12.6	30	0.42	52.5	41.0	Signal	D	Consistent WB Delays	Consider widening WB approach to allow 2 through lanes
HABERSHAM - NB	Stephenson to Johnston	5093001	5093	3189.1	AM	33.5	32	1.05	2.6	0.0	Signal	A		A
HABERSHAM - NB	Stephenson to Johnston	5093001	5093	3189.1	MD	35.6	35	1.02	0.0	0.0	Signal	A		A
HABERSHAM - NB	Stephenson to Johnston	5093001	5093	3189.1	PM	30.4	35	0.87	10.3	0.0	Signal	B		B
HABERSHAM - NB	Johnston to DeRenne	5093002	5093	2430.1	AM	13.8	35	0.39	82.6	67.7	Cross Street	E	Minor Approach to SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
HABERSHAM - NB	Johnston to DeRenne	5093002	5093	2430.1	MD	19.2	35	0.55	49.2	40.5	Cross Street	C		C
HABERSHAM - NB	Johnston to DeRenne	5093002	5093	2430.1	PM	7.6	35	0.22	176.3	106.7	Cross Street	F	Minor Approach to SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
HABERSHAM - NB	DeRenne to 63rd St	5093003	5093	2741.8	AM	33.9	35	0.97	3.8	0.0	Signal	A		A
HABERSHAM - NB	DeRenne to 63rd St	5093003	5093	2741.8	MD	30.9	35	0.88	7.2	0.0	Signal	A		A
HABERSHAM - NB	DeRenne to 63rd St	5093003	5093	2741.8	PM	26.6	35	0.76	17.2	0.0	Signal	B		B
HABERSHAM - NB	63rd St to Columbus	5093004	5093	1501.2	AM	22.9	30	0.76	10.4	5.7	Signal	B		B
HABERSHAM - NB	63rd St to Columbus	5093004	5093	1501.2	MD	25.2	30	0.84	6.4	0.0	Signal	A		A
HABERSHAM - NB	63rd St to Columbus	5093004	5093	1501.2	PM	17.9	30	0.60	23.0	0.3	Signal	C		C
HABERSHAM - NB	Columbus to Washington	5093005	5093	3618.9	AM	34.7	29	1.20	0.0	0.0	Signal	A		A
HABERSHAM - NB	Columbus to Washington	5093005	5093	3618.9	MD	28.6	30	0.95	4.1	5.5	Signal	A		A
HABERSHAM - NB	Columbus to Washington	5093005	5093	3618.9	PM	27.4	30	0.91	10.4	6.0	Signal	B		B
HABERSHAM - NB	Washington to Victory	5093006	5093	1197.4	AM	19.1	28	0.68	21.1	15.3	Signal	C		C
HABERSHAM - NB	Washington to Victory	5093006	5093	1197.4	MD	24.5	30	0.82	6.2	0.0	Signal	A		A
HABERSHAM - NB	Washington to Victory	5093006	5093	1197.4	PM	26.0	30	0.87	4.2	0.0	Signal	A		A
HABERSHAM - NB	Victory to 37th St	5093007	5093	1712.5	AM	19.4	30	0.65	23.6	17.0	Signal	C		C
HABERSHAM - NB	Victory to 37th St	5093007	5093	1712.5	MD	19.7	30	0.66	23.6	10.5	Signal	C		C
HABERSHAM - NB	Victory to 37th St	5093007	5093	1712.5	PM	15.2	30	0.51	40.4	25.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
HABERSHAM - SB	37th St to Victory	5094002	5094	1712.4	AM	25.6	30	0.85	8.8	3.3	Signal	A		A
HABERSHAM - SB	37th St to Victory	5094002	5094	1712.4	MD	24.3	30	0.81	10.8	6.3	Signal	B		B
HABERSHAM - SB	37th St to Victory	5094002	5094	1712.4	PM	26.0	30	0.87	11.0	2.3	Signal	B		B
HABERSHAM - SB	Victory to Washington	5094003	5094	1197.5	AM	27.9	30	0.93	5.1	1.0	Signal	A		A
HABERSHAM - SB	Victory to Washington	5094003	5094	1197.5	MD	20.3	30	0.68	13.4	5.3	Signal	B		B
HABERSHAM - SB	Victory to Washington	5094003	5094	1197.5	PM	18.3	30	0.61	21.0	9.7	Signal	C		C
HABERSHAM - SB	Washington to Columbus	5094004	5094	3618.9	AM	31.3	30	1.04	0.8	0.0	Signal	A		A
HABERSHAM - SB	Washington to Columbus	5094004	5094	3618.9	MD	36.7	30	1.22	0.0	0.0	Signal	A		A
HABERSHAM - SB	Washington to Columbus	5094004	5094	3618.9	PM	26.8	30	0.89	9.8	1.3	Signal	A		A
HABERSHAM - SB	Columbus to 63rd St	5094005	5094	1501.2	AM	23.4	30	0.78	13.7	6.3	Signal	B		B
HABERSHAM - SB	Columbus to 63rd St	5094005	5094	1501.2	MD	25.4	30	0.85	10.1	3.3	Signal	B		B
HABERSHAM - SB	Columbus to 63rd St	5094005	5094	1501.2	PM	20.5	30	0.68	15.4	0.0	Signal	B		B
HABERSHAM - SB	63rd St to DeRenne	5094006	5094	2741.8	AM	16.3	35	0.46	66.4	43.3	Signal	E	Minor Approach at SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
HABERSHAM - SB	63rd St to DeRenne	5094006	5094	2741.8	MD	22.9	35	0.65	50.1	43.0	Signal	D	Minor Approach to SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
HABERSHAM - SB	63rd St to DeRenne	5094006	5094	2741.8	PM	21.1	35	0.60	35.0	14.0	Signal	D	Minor Approach to SH 21	Cross Street Delay Expected, Study further in E-W study for improving DeRenne
HABERSHAM - SB	DeRenne to Johnston	5094007	5094	2430.1	AM	31.6	35	0.90	6.5	0.0	Signal	A		A
HABERSHAM - SB	DeRenne to Johnston	5094007	5094	2430.1	MD	30.9	35	0.88	6.3	0.0	Signal	A		A
HABERSHAM - SB	DeRenne to Johnston	5094007	5094	2430.1	PM	21.8	35	0.62	31.9	2.3	Signal	C		C
HABERSHAM - SB	Johnston to Stephenson	5094008	5094	3189.1	AM	17.5	35	0.50	66.7	44.3	Cross Street	D	Currently under construction on Stephenson	Stephenson widening will help Habersham
HABERSHAM - SB	Johnston to Stephenson	5094008	5094	3189.1	MD	26.7	35	0.76	23.1	13.0	Cross Street	B		B
HABERSHAM - SB	Johnston to Stephenson	5094008	5094	3189.1	PM	7.9	35	0.23	241.3	126.0	Cross Street	F	Currently under construction on Stephenson	Stephenson widening will help Habersham
BONNY BRIDGE - EB	SH 21 to SH 25	5095001	5095	4947.8	AM	31.4	40	0.79	23.9	8.3	Signal	C		C
BONNY BRIDGE - EB	SH 21 to SH 25	5095001	5095	4947.8	MD	36.1	40	0.91	8.8	4.5	Signal	A		A
BONNY BRIDGE - EB	SH 21 to SH 25	5095001	5095	4947.8	PM	32.9	40	0.83	19.5	10.6	Signal	B		B
BONNY BRIDGE - WB	SH 25 to SH 21	5096002	5096	4947.8	AM	28.2	40	0.71	46.4	35.3	Signal	D	Delays at SH 21, Minor approach	Delays expected at minor appr to SH 21, Optimize Signal
BONNY BRIDGE - WB	SH 25 to SH 21	5096002	5096	4947.8	MD	29.4	40	0.74	34.8	17.7	Signal	C		C
BONNY BRIDGE - WB	SH 25 to SH 21	5096002	5096	4947.8	PM	21.9	40	0.55	74.3	47.8	Signal	E	Delays at SH 21, Minor approach	Delays expected at minor appr to SH 21, Optimize Signal
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	US 80 to Benton	5097001	5097	9827.6	AM	50.2	47	1.07	0.0	0.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	US 80 to Benton	5097001	5097	9827.6	MD	48.9	47	1.05	0.2	0.4	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	US 80 to Benton	5097001	5097	9827.6	PM	51.2	47	1.09	0.0	0.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	Benton to Mill Creek Circle	5097002	5097	707.8	AM	33.8	45	0.75	4.8	0.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	Benton to Mill Creek Circle	5097002	5097	707.8	MD	31.5	45	0.70	7.6	3.6	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	Benton to Mill Creek Circle	5097002	5097	707.8	PM	44.7	45	0.99	1.5	0.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	Mill Creek Circle to I-95 SB Ramp	5097003	5097	681.1	AM	40.3	45	0.90	1.7	0.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	Mill Creek Circle to I-95 SB Ramp	5097003	5097	681.1	MD	39.8	45	0.88	2.0	0.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	Mill Creek Circle to I-95 SB Ramp	5097003	5097	681.1	PM	42.4	45	0.94	1.7	0.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	I-95 SB Ramp to I-95 NB Ramp	5097004	5097	969.2	AM	47.4	45	1.05	0.1	0.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	I-95 SB Ramp to I-95 NB Ramp	5097004	5097	969.2	MD	45.3	45	1.01	0.8	0.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	I-95 SB Ramp to I-95 NB Ramp	5097004	5097	969.2	PM	46.1	45	1.02	0.4	0.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	I-95 NB Ramp to McKenna	5097005	5097	4223.3	AM	48.8	45	1.08	0.7	0.0	Cross Street	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	I-95 NB Ramp to McKenna	5097005	5097	4223.3	MD	49.3	45	1.10	0.0	0.0	Cross Street	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	I-95 NB Ramp to McKenna	5097005	5097	4223.3	PM	44.8	45	1.00	3.0	0.9	Cross Street	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	McKenna to Airways	5097006	5097	1951.7	AM	38.8	45	0.86	4.9	0.0	Cross Street	B		B
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	McKenna to Airways	5097006	5097	1951.7	MD	42.2	45	0.94	2.6	0.0	Cross Street	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	McKenna to Airways	5097006	5097	1951.7	PM	41.1	45	0.91	3.0	0.0	Cross Street	B		B
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	Airways to McKenna	5097007	5097	809.7	AM	19.3	45	0.43	16.0	0.4	TWSC	C		C

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	Airways to McKenna	5097007	5097	809.7	MD	20.8	45	0.46	13.2	0.2	TWSC	B		B
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	Airways to McKenna	5097007	5097	809.7	PM	17.6	45	0.39	18.3	3.2	TWSC	C		C
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	McKenna to Patrick Graham Terminal	5097008	5097	1642.8	AM	34.8	45	0.77	7.4	0.7	Cross Street	B		B
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	McKenna to Patrick Graham Terminal	5097008	5097	1642.8	MD	35.0	45	0.78	7.4	0.0	Cross Street	B		B
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	McKenna to Patrick Graham Terminal	5097008	5097	1642.8	PM	37.5	45	0.83	6.1	0.0	Cross Street	B		B
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	Patrick Graham Terminal to SH 21	5097009	5097	12131.6	AM	31.0	40	0.79	58.5	45.8	Cross Street	B		B
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	Patrick Graham Terminal to SH 21	5097009	5097	12131.6	MD	26.4	40	0.67	119.8	90.8	Cross Street	C		C
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	Patrick Graham Terminal to SH 21	5097009	5097	12131.6	PM	21.0	40	0.53	224.0	120.0	Cross Street	D	Currently detour due to construction on SR 25	Study next CMS
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	SH 21 to SH 25	5097010	5097	4673.4	AM	29.6	41	0.72	30.9	12.7	Signal	C		C
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	SH 21 to SH 25	5097010	5097	4673.4	MD	26.6	41	0.65	42.9	17.8	Signal	D	Currently detour due to construction on SR 25	Study next CMS
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - EB	SH 21 to SH 25	5097010	5097	4673.4	PM	26.6	41	0.65	42.3	13.0	Signal	D	Currently detour due to construction on SR 25	Study next CMS
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	SH 25 to SH 21	5098002	5098	4673.4	AM	20.9	41	0.51	78.8	48.3	Signal	E	Currently detour due to construction on SR 25	Study next CMS
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	SH 25 to SH 21	5098002	5098	4673.4	MD	21.1	41	0.51	80.3	49.0	Signal	F	Currently detour due to construction on SR 25	Study next CMS
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	SH 25 to SH 21	5098002	5098	4673.4	PM	26.5	41	0.65	54.8	33.6	Signal	D	Currently detour due to construction on SR 25	Study next CMS
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	SH 21 to Patrick Graham Terminal	5098003	5098	12131.6	AM	35.1	40	0.89	27.9	4.7	Signal	C		C
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	SH 21 to Patrick Graham Terminal	5098003	5098	12131.6	MD	38.5	40	0.97	11.9	0.0	Signal	B		B
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	SH 21 to Patrick Graham Terminal	5098003	5098	12131.6	PM	40.8	40	1.03	1.1	0.6	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	Patrick Graham Terminal to McKenna	5098004	5098	1642.8	AM	33.9	45	0.75	10.0	2.7	Cross Street	C		C
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	Patrick Graham Terminal to McKenna	5098004	5098	1642.8	MD	37.0	45	0.82	5.5	0.0	Cross Street	B		B
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	Patrick Graham Terminal to McKenna	5098004	5098	1642.8	PM	41.3	45	0.92	2.7	0.0	Cross Street	B		B
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	McKenna to McKenna	5098005	5098	2525.8	AM	31.2	45	0.69	16.8	2.3	Cross Street	C		C
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	McKenna to McKenna	5098005	5098	2525.8	MD	32.4	45	0.72	15.5	2.3	Cross Street	C		C
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	McKenna to McKenna	5098005	5098	2525.8	PM	33.9	45	0.75	12.9	1.3	Cross Street	C		C
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	McKenna to I-95 NB Ramp	5098006	5098	4182.7	AM	47.2	45	1.05	0.3	0.0	Cross Street	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	McKenna to I-95 NB Ramp	5098006	5098	4182.7	MD	46.3	45	1.03	0.7	0.0	Cross Street	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	McKenna to I-95 NB Ramp	5098006	5098	4182.7	PM	44.8	45	0.99	1.4	0.0	Cross Street	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	I-95 NB Ramp to I-95 SB Ramp	5098007	5098	969.1	AM	47.9	45	1.06	0.5	0.0	Cross Street	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	I-95 NB Ramp to I-95 SB Ramp	5098007	5098	969.1	MD	45.5	45	1.01	0.1	0.0	Cross Street	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	I-95 NB Ramp to I-95 SB Ramp	5098007	5098	969.1	PM	45.7	45	1.01	1.1	0.0	Cross Street	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	I-95 SB Ramp to Mill Creek Circle	5098008	5098	681.1	AM	46.6	45	1.04	0.0	0.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	I-95 SB Ramp to Mill Creek Circle	5098008	5098	681.1	MD	35.3	45	0.78	5.3	2.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	I-95 SB Ramp to Mill Creek Circle	5098008	5098	681.1	PM	36.6	45	0.81	3.3	0.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	Mill Creek Circle to Benton	5098009	5098	707.8	AM	37.2	45	0.83	2.7	0.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	Mill Creek Circle to Benton	5098009	5098	707.8	MD	32.9	45	0.73	6.0	1.6	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	Mill Creek Circle to Benton	5098009	5098	707.8	PM	36.7	45	0.81	2.7	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	Benton to US 80	5098010	5098	9827.6	AM	49.9	47	1.07	0.0	0.0	Signal	A		A
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	Benton to US 80	5098010	5098	9827.6	MD	46.5	47	0.99	11.0	8.8	Signal	B		B
GULFSTREAM/CROSSGATE/ IDA/AIRWAYS - WB	Benton to US 80	5098010	5098	9827.6	PM	40.7	47	0.87	21.8	20.5	Signal	C		C
I 95 - NB	Bryan County Line to SH 204	5101002	5101	11234.5	AM	72.8	65	1.12	0.0	0.0	Cross Street	A		A
I 95 - NB	Bryan County Line to SH 204	5101002	5101	11234.5	MD	75.8	65	1.17	0.0	0.0	Cross Street	A		A
I 95 - NB	Bryan County Line to SH 204	5101002	5101	11234.5	PM	71.6	65	1.10	0.0	0.0	Cross Street	A		A
I 95 - NB	SH 204 to Little Neck Rd	5101003	5101	9568.2	AM	75.5	65	1.16	0.0	0.0	Cross Street	A		A
I 95 - NB	SH 204 to Little Neck Rd	5101003	5101	9568.2	MD	75.1	65	1.16	0.0	0.0	Cross Street	A		A
I 95 - NB	SH 204 to Little Neck Rd	5101003	5101	9568.2	PM	73.3	65	1.13	0.0	0.0	Cross Street	A		A
I 95 - NB	Little Neck Rd to Quacco	5101004	5101	5823.8	AM	78.2	65	1.20	0.0	0.0	Cross Street	A		A
I 95 - NB	Little Neck Rd to Quacco	5101004	5101	5823.8	MD	75.4	65	1.16	0.0	0.0	Cross Street	A		A
I 95 - NB	Little Neck Rd to Quacco	5101004	5101	5823.8	PM	71.1	65	1.09	0.8	0.0	Cross Street	A		A
I 95 - NB	Quacco to I-16	5101005	5101	12530.8	AM	76.4	65	1.17	0.0	0.0	Cross Street	A		A
I 95 - NB	Quacco to I-16	5101005	5101	12530.8	MD	71.9	65	1.11	0.0	0.0	Cross Street	A		A
I 95 - NB	Quacco to I-16	5101005	5101	12530.8	PM	73.6	65	1.13	0.0	0.0	Cross Street	A		A
I 95 - NB	I-16 to US 80	5101006	5101	14514.3	AM	74.5	65	1.15	0.0	0.0	Cross Street	A		A
I 95 - NB	I-16 to US 80	5101006	5101	14514.3	MD	71.5	65	1.10	0.0	0.0	Cross Street	A		A
I 95 - NB	I-16 to US 80	5101006	5101	14514.3	PM	70.6	65	1.09	0.0	0.0	Cross Street	A		A
I 95 - NB	US 80 to Pooler Pkwy	5101007	5101	10424.7	AM	74.4	65	1.14	0.0	0.0	Cross Street	A		A
I 95 - NB	US 80 to Pooler Pkwy	5101007	5101	10424.7	MD	70.3	65	1.08	0.0	0.0	Cross Street	A		A
I 95 - NB	US 80 to Pooler Pkwy	5101007	5101	10424.7	PM	71.2	65	1.10	0.0	0.0	Cross Street	A		A
I 95 - NB	Pooler Pkwy to Jimmy Deloach	5101008	5101	12883.1	AM	75.8	65	1.17	0.0	0.0	Cross Street	A		A
I 95 - NB	Pooler Pkwy to Jimmy Deloach	5101008	5101	12883.1	MD	72.7	65	1.12	0.0	0.0	Cross Street	A		A
I 95 - NB	Pooler Pkwy to Jimmy Deloach	5101008	5101	12883.1	PM	71.9	65	1.11	0.0	0.0	Cross Street	A		A
I 95 - NB	Jimmy Deloach to City Limit	5101009	5101	3079.4	AM	73.6	65	1.13	0.0	0.0	Cross Street	A		A
I 95 - NB	Jimmy Deloach to City Limit	5101009	5101	3079.4	MD	70.4	65	1.08	0.0	0.0	Cross Street	A		A
I 95 - NB	Jimmy Deloach to City Limit	5101009	5101	3079.4	PM	69.9	65	1.07	0.4	0.0	Cross Street	A		A
I 95 - NB	City Limit to Meinhard / Henry	5101010	5101	3149	AM	70.7	65	1.09	0.0	0.0	City Limit	A		A
I 95 - NB	City Limit to Meinhard / Henry	5101010	5101	3149	MD	66.5	65	1.02	0.6	0.0	City Limit	A		A
I 95 - NB	City Limit to Meinhard / Henry	5101010	5101	3149	PM	67.0	65	1.03	0.4	0.0	City Limit	A		A
I 95 - NB	Meinhard / Henry to SH 21	5101011	5101	4910.3	AM	75.3	65	1.16	0.0	0.0	Cross Street	A		A
I 95 - NB	Meinhard / Henry to SH 21	5101011	5101	4910.3	MD	69.7	65	1.07	0.3	0.0	Cross Street	A		A
I 95 - NB	Meinhard / Henry to SH 21	5101011	5101	4910.3	PM	48.8	65	0.75	56.0	32.0	Cross Street	A		A
I 95 - SB	SH 21 to Meinhard / Henry	5102002	5102	4910.3	AM	75.8	65	1.17	0.0	0.0	Cross Street	A		A
I 95 - SB	SH 21 to Meinhard / Henry	5102002	5102	4910.3	MD	78.7	65	1.21	0.0	0.0	Cross Street	A		A
I 95 - SB	SH 21 to Meinhard / Henry	5102002	5102	4910.3	PM	71.3	65	1.10	0.0	0.0	Cross Street	A		A
I 95 - SB	Meinhard / Henry to City Limit	5102003	5102	3149	AM	72.4	65	1.11	0.0	0.0	Cross Street	A		A
I 95 - SB	Meinhard / Henry to City Limit	5102003	5102	3149	MD	74.3	65	1.14	0.0	0.0	Cross Street	A		A
I 95 - SB	Meinhard / Henry to City Limit	5102003	5102	3149	PM	70.4	65	1.08	0.4	0.0	Cross Street	A		A
I 95 - SB	City Limit to Jimmy Deloach	5102004	5102	3079.4	AM	78.4	65	1.21	0.0	0.0	City Limit	A		A
I 95 - SB	City Limit to Jimmy Deloach	5102004	5102	3079.4	MD	76.9	65	1.18	0.0	0.0	City Limit	A		A
I 95 - SB	City Limit to Jimmy Deloach	5102004	5102	3079.4	PM	71.7	65	1.10	0.0	0.0	City Limit	A		A
I 95 - SB	Jimmy Deloach to Pooler Pkwy	5102005	5102	12883.1	AM	75.7	65	1.16	0.0	0.0	Cross Street	A		A
I 95 - SB	Jimmy Deloach to Pooler Pkwy	5102005	5102	12883.1	MD	76.6	65	1.18	0.0	0.0	Cross Street	A		A
I 95 - SB	Jimmy Deloach to Pooler Pkwy	5102005	5102	12883.1	PM	72.7	65	1.12	0.0	0.0	Cross Street	A		A
I 95 - SB	Pooler Pkwy to US 80	5102006	5102	10424.7	AM	73.3	65	1.13	0.0	0.0	Cross Street	A		A
I 95 - SB	Pooler Pkwy to US 80	5102006	5102	10424.7	MD	74.5	65	1.15	0.0	0.0	Cross Street	A		A
I 95 - SB	Pooler Pkwy to US 80	5102006	5102	10424.7	PM	74.7	65	1.15	0.0	0.0	Cross Street	A		A
I 95 - SB	US 80 to I-16	5102007	5102	14514.4	AM	74.9	65	1.15	0.0	0.0	Cross Street	A		A
I 95 - SB	US 80 to I-16	5102007	5102	14514.4	MD	75.3	65	1.16	0.0	0.0	Cross Street	A		A
I 95 - SB	US 80 to I-16	5102007	5102	14514.4	PM	72.8	65	1.12	0.0	0.0	Cross Street	A		A
I 95 - SB	I-16 to Quacco	5102008	5102	12530.7	AM	73.9	65	1.14	0.0	0.0	Cross Street	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
I 95 - SB	I-16 to Quacco	5102008	5102	12530.7	MD	77.7	65	1.20	0.0	0.0	Cross Street	A		A
I 95 - SB	I-16 to Quacco	5102008	5102	12530.7	PM	74.3	65	1.14	0.0	0.0	Cross Street	A		A
I 95 - SB	Quacco to Little Neck Rd	5102009	5102	5823.8	AM	74.9	65	1.15	0.0	0.0	Cross Street	A		A
I 95 - SB	Quacco to Little Neck Rd	5102009	5102	5823.8	MD	78.1	65	1.20	0.0	0.0	Cross Street	A		A
I 95 - SB	Quacco to Little Neck Rd	5102009	5102	5823.8	PM	74.7	65	1.15	0.0	0.0	Cross Street	A		A
I 95 - SB	Little Neck Rd to SH 204	5102010	5102	9568.2	AM	75.1	65	1.16	0.0	0.0	Cross Street	A		A
I 95 - SB	Little Neck Rd to SH 204	5102010	5102	9568.2	MD	76.5	65	1.18	0.0	0.0	Cross Street	A		A
I 95 - SB	Little Neck Rd to SH 204	5102010	5102	9568.2	PM	74.4	65	1.14	0.0	0.0	Cross Street	A		A
I 95 - SB	SH 204 to Bryan County Line	5102011	5102	11234.5	AM	72.7	65	1.12	0.0	0.0	Cross Street	A		A
I 95 - SB	SH 204 to Bryan County Line	5102011	5102	11234.5	MD	72.1	65	1.11	0.0	0.0	Cross Street	A		A
I 95 - SB	SH 204 to Bryan County Line	5102011	5102	11234.5	PM	73.7	65	1.13	0.0	0.0	Cross Street	A		A
PENN WALLER - NB	Walthour to The Oaks	5103001	5103	1175.7	AM	33.8	35	0.96	1.3	0.0	Signal	A		A
PENN WALLER - NB	Walthour to The Oaks	5103001	5103	1175.7	MD	33.2	35	0.95	1.2	0.0	Signal	A		A
PENN WALLER - NB	Walthour to The Oaks	5103001	5103	1175.7	PM	32.8	35	0.94	1.5	0.0	Signal	A		A
PENN WALLER - NB	The Oaks to Olde Towne	5103002	5103	822.1	AM	42.6	35	1.22	0.0	0.0	Cross Street	A		A
PENN WALLER - NB	The Oaks to Olde Towne	5103002	5103	822.1	MD	43.3	35	1.24	0.4	0.0	Cross Street	A		A
PENN WALLER - NB	The Oaks to Olde Towne	5103002	5103	822.1	PM	39.2	35	1.12	0.3	0.0	Cross Street	A		A
PENN WALLER - NB	Olde Towne to Wassaw	5103003	5103	3542.4	AM	31.6	31	1.02	3.6	0.0	Cross Street	A		A
PENN WALLER - NB	Olde Towne to Wassaw	5103003	5103	3542.4	MD	41.5	35	1.19	0.0	0.0	Cross Street	A		A
PENN WALLER - NB	Olde Towne to Wassaw	5103003	5103	3542.4	PM	40.4	35	1.15	0.0	0.0	Cross Street	A		A
PENN WALLER - NB	Wassaw to Johnny Mercer	5103004	5103	1115.9	AM	27.8	35	0.79	5.7	0.0	Cross Street	B		B
PENN WALLER - NB	Wassaw to Johnny Mercer	5103004	5103	1115.9	MD	23.6	35	0.68	13.0	7.0	Cross Street	C		C
PENN WALLER - NB	Wassaw to Johnny Mercer	5103004	5103	1115.9	PM	14.9	35	0.43	33.4	22.3	Cross Street	D	Minor Approach to Johnny Mercer	Side street delays are expected
PENN WALLER - SB	Johnny Mercer to Wassaw	5104001	5104	1115.9	AM	30.4	35	0.87	4.4	0.0	Signal	A		A
PENN WALLER - SB	Johnny Mercer to Wassaw	5104001	5104	1115.9	MD	21.4	35	0.61	28.2	0.0	Signal	C		C
PENN WALLER - SB	Johnny Mercer to Wassaw	5104001	5104	1115.9	PM	29.6	35	0.85	3.9	0.0	Signal	A		A
PENN WALLER - SB	Wassaw to Olde Towne	5104002	5104	3542.4	AM	41.9	35	1.20	0.0	0.0	Cross Street	A		A
PENN WALLER - SB	Wassaw to Olde Towne	5104002	5104	3542.4	MD	42.2	35	1.20	0.0	0.0	Cross Street	A		A
PENN WALLER - SB	Wassaw to Olde Towne	5104002	5104	3542.4	PM	37.9	35	1.08	0.0	0.0	Cross Street	A		A
PENN WALLER - SB	Olde Towne to The Oaks	5104003	5104	822.1	AM	46.2	35	1.32	0.4	0.0	Cross Street	A		A
PENN WALLER - SB	Olde Towne to The Oaks	5104003	5104	822.1	MD	42.8	35	1.22	0.0	0.0	Cross Street	A		A
PENN WALLER - SB	Olde Towne to The Oaks	5104003	5104	822.1	PM	43.1	35	1.23	0.0	0.0	Cross Street	A		A
PENN WALLER - SB	The Oaks to Walthour	5104004	5104	1175.7	AM	32.1	35	0.92	2.7	0.7	Cross Street	A		A
PENN WALLER - SB	The Oaks to Walthour	5104004	5104	1175.7	MD	25.1	35	0.72	9.6	3.0	Cross Street	B		B
PENN WALLER - SB	The Oaks to Walthour	5104004	5104	1175.7	PM	27.8	35	0.79	5.9	1.0	Cross Street	B		B
HARMON - NB	Victory to 39th St	5105002	5105	1056.7	AM	23.6	25	0.94	1.9	1.3	TWSC	A		A
HARMON - NB	Victory to 39th St	5105002	5105	1056.7	MD	23.1	25	0.93	2.9	1.0	TWSC	A		A
HARMON - NB	Victory to 39th St	5105002	5105	1056.7	PM	17.4	25	0.70	12.9	6.0	TWSC	B		B
HARMON - NB	39th St to 37th St	5105003	5105	658.7	AM	15.5	25	0.62	11.2	6.8	AWSC	B		B
HARMON - NB	39th St to 37th St	5105003	5105	658.7	MD	15.6	25	0.62	12.1	8.3	AWSC	B		B
HARMON - NB	39th St to 37th St	5105003	5105	658.7	PM	13.1	25	0.52	18.5	12.7	AWSC	C		C
HARMON - NB	37th St to Anderson	5105004	5105	1999.1	AM	21.1	25	0.85	11.4	18.0	Signal	B		B
HARMON - NB	37th St to Anderson	5105004	5105	1999.1	MD	21.8	25	0.87	10.5	13.3	Signal	B		B
HARMON - NB	37th St to Anderson	5105004	5105	1999.1	PM	14.9	25	0.59	37.9	33.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
HARMON - NB	Anderson to Henry	5105005	5105	321.2	AM	9.0	25	0.36	16.0	10.0	Signal	B		B
HARMON - NB	Anderson to Henry	5105005	5105	321.2	MD	8.5	25	0.34	24.4	13.8	Signal	C		C
HARMON - NB	Anderson to Henry	5105005	5105	321.2	PM	8.2	25	0.33	18.2	14.0	Signal	B		B
HARMON - NB	Henry to Gwinnett	5105006	5105	1564.1	AM	26.0	25	1.04	0.8	1.5	Signal	A		A
HARMON - NB	Henry to Gwinnett	5105006	5105	1564.1	MD	24.7	25	0.99	8.0	2.5	Signal	A		A
HARMON - NB	Henry to Gwinnett	5105006	5105	1564.1	PM	23.1	25	0.92	6.2	8.0	Signal	A		A
HARMON - NB	Gwinnett to Wheaton	5105007	5105	1513.6	AM	22.4	25	0.90	8.5	7.8	TWSC	A		A
HARMON - NB	Gwinnett to Wheaton	5105007	5105	1513.6	MD	21.0	25	0.84	11.0	12.0	TWSC	B		B
HARMON - NB	Gwinnett to Wheaton	5105007	5105	1513.6	PM	17.8	25	0.71	18.5	15.0	TWSC	C		C
HARMON - SB	Wheaton to Gwinnett	5106002	5106	1513.6	AM	24.4	25	0.98	1.8	3.0	TWSC	A		A
HARMON - SB	Wheaton to Gwinnett	5106002	5106	1513.6	MD	22.7	25	0.91	8.4	7.3	TWSC	A		A
HARMON - SB	Wheaton to Gwinnett	5106002	5106	1513.6	PM	16.3	25	0.65	22.7	12.0	TWSC	C		C
HARMON - SB	Gwinnett to Henry	5106003	5106	1564.1	AM	14.1	25	0.57	38.3	38.0	TWSC	E	Urban Core	Cross Street delays expected with priority given to east-west
HARMON - SB	Gwinnett to Henry	5106003	5106	1564.1	MD	16.0	25	0.64	25.7	25.0	TWSC	D	Urban Core	Cross Street delays expected with priority given to east-west
HARMON - SB	Gwinnett to Henry	5106003	5106	1564.1	PM	20.7	25	0.83	14.4	11.0	TWSC	B		B
HARMON - SB	Henry to Anderson	5106004	5106	321.2	AM	4.8	25	0.19	37.6	30.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
HARMON - SB	Henry to Anderson	5106004	5106	321.2	MD	4.9	25	0.19	37.1	30.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
HARMON - SB	Henry to Anderson	5106004	5106	321.2	PM	4.5	25	0.18	35.4	31.3	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
HARMON - SB	Anderson to 37th St	5106005	5106	1999	AM	27.6	25	1.10	8.5	10.8	Signal	A		A
HARMON - SB	Anderson to 37th St	5106005	5106	1999	MD	26.6	25	1.06	1.0	4.3	Signal	A		A
HARMON - SB	Anderson to 37th St	5106005	5106	1999	PM	17.2	25	0.69	25.6	20.0	Signal	C		C
HARMON - SB	37th St to 39th St	5106006	5106	658.8	AM	22.1	25	0.88	2.7	0.8	Signal	A		A
HARMON - SB	37th St to 39th St	5106006	5106	658.8	MD	21.3	25	0.85	3.6	0.8	Signal	A		A
HARMON - SB	37th St to 39th St	5106006	5106	658.8	PM	17.7	25	0.71	7.2	2.7	Signal	A		A
HARMON - SB	39th St to Victory	5106007	5106	1056.6	AM	14.7	25	0.59	20.0	16.8	AWSC	C		C
HARMON - SB	39th St to Victory	5106007	5106	1056.6	MD	18.9	25	0.76	12.2	7.8	AWSC	B		B
HARMON - SB	39th St to Victory	5106007	5106	1056.6	PM	13.1	25	0.52	25.9	18.7	AWSC	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired cond, Stop sign upstream restricts coordination
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Green Island to Landings/Village	5107002	5107	1197.7	AM	14.2	40	0.35	45.6	28.0	AWSC	E	Delays at Landings/Village	Priority IC - Widen 2-4 from Ferguson to McWhorter
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Green Island to Landings/Village	5107002	5107	1197.7	MD	19.0	40	0.47	29.5	16.0	AWSC	D	Delays at Landings/Village	Priority IC - Widen 2-4 from Ferguson to McWhorter
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Green Island to Landings/Village	5107002	5107	1197.7	PM	20.3	40	0.51	24.2	12.5	AWSC	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Landings/Village to Intercoastal Waterway	5107003	5107	4799.3	AM	43.6	40	1.09	0.0	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Landings/Village to Intercoastal Waterway	5107003	5107	4799.3	MD	40.2	40	1.01	1.3	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Landings/Village to Intercoastal Waterway	5107003	5107	4799.3	PM	45.7	40	1.14	0.0	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Intercoastal Waterway to Moon River	5107004	5107	5971.9	AM	49.7	50	0.99	1.5	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Intercoastal Waterway to Moon River	5107004	5107	5971.9	MD	49.5	50	0.99	1.6	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Intercoastal Waterway to Moon River	5107004	5107	5971.9	PM	55.5	50	1.11	0.0	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Moon River to Ferguson	5107005	5107	5297.5	AM	35.9	50	0.72	29.3	13.0	Cross Street	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Moon River to Ferguson	5107005	5107	5297.5	MD	37.0	50	0.74	26.8	6.5	Cross Street	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Moon River to Ferguson	5107005	5107	5297.5	PM	35.9	50	0.72	32.2	19.5	Cross Street	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Ferguson to Whitfield	5107006	5107	2252.6	AM	28.9	50	0.58	27.9	1.7	Signal	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Ferguson to Whitfield	5107006	5107	2252.6	MD	36.9	50	0.74	10.8	0.0	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Ferguson to Whitfield	5107006	5107	2252.6	PM	39.3	50	0.79	8.4	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Whitfield to Old Montgomery Rd	5107007	5107	4798.2	AM	29.5	40	0.74	39.3	2.3	Cross Street	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Whitfield to Old Montgomery Rd	5107007	5107	4798.2	MD	38.1	40	0.95	5.8	0.0	Cross Street	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Whitfield to Old Montgomery Rd	5107007	5107	4798.2	PM	42.9	40	1.07	0.0	0.0	Cross Street	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Old Montgomery Rd to Kings Way	5107008	5107	1676	AM	22.9	35	0.65	17.5	0.0	Cross Street	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Old Montgomery Rd to Kings Way	5107008	5107	1676	MD	37.8	35	1.06	0.0	0.0	Cross Street	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Old Montgomery Rd to Kings Way	5107008	5107	1676	PM	35.7	35	1.01	5.5	2.3	Cross Street	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Kings Way to City Limit	5107009	5107	2618.1	AM	34.9	40	0.87	7.4	0.0	Flashing Yellow	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Kings Way to City Limit	5107009	5107	2618.1	MD	45.9	40	1.15	0.0	0.0	Flashing Yellow	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Kings Way to City Limit	5107009	5107	2618.1	PM	45.3	40	1.13	0.0	0.0	Flashing Yellow	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	City Limit to Montgomery Cross	5107010	5107	2227.8	AM	18.4	45	0.41	54.1	36.0	City Limit	E	Heavy left turn volumes overflow storage bays	Optimize signal timing to maximize flowrate for left turn vehicles, this will free-up green time for other phases
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	City Limit to Montgomery Cross	5107010	5107	2227.8	MD	24.0	45	0.53	45.6	29.7	City Limit	D	Heavy left turn volumes overflow storage bays	Optimize signal timing to maximize flowrate for left turn vehicles, this will free-up green time for other phases
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	City Limit to Montgomery Cross	5107010	5107	2227.8	PM	15.6	45	0.35	67.3	53.7	City Limit	F	Heavy left turn volumes overflow storage bays	Optimize signal timing to maximize flowrate for left turn vehicles, this will free-up green time for other phases

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Montgomery Cross to Mall Blvd	5107011	5107	1919.6	AM	38.3	40	0.96	2.0	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Montgomery Cross to Mall Blvd	5107011	5107	1919.6	MD	33.6	40	0.84	8.4	1.7	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Montgomery Cross to Mall Blvd	5107011	5107	1919.6	PM	30.1	40	0.75	12.0	5.7	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Mall Blvd to Eisenhower	5107012	5107	2848.5	AM	41.0	40	1.03	1.3	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Mall Blvd to Eisenhower	5107012	5107	2848.5	MD	32.2	40	0.81	11.9	1.3	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Mall Blvd to Eisenhower	5107012	5107	2848.5	PM	38.1	40	0.95	6.0	0.3	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Eisenhower to Stephenson	5107013	5107	1307.8	AM	31.2	40	0.78	6.1	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Eisenhower to Stephenson	5107013	5107	1307.8	MD	35.3	40	0.88	2.9	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Eisenhower to Stephenson	5107013	5107	1307.8	PM	15.2	40	0.38	45.2	25.7	Signal	D	Corridor will improve with extension of Truman	Study next CMS
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Stephenson to DeRenne	5107014	5107	5497.7	AM	18.7	35	0.53	109.4	49.7	Signal	F	Corridor will improve with extension of Truman	Study next CMS, review in E-W Study
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Stephenson to DeRenne	5107014	5107	5497.7	MD	16.1	35	0.46	130.3	62.0	Signal	F	Corridor will improve with extension of Truman	Study next CMS, review in E-W Study
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Stephenson to DeRenne	5107014	5107	5497.7	PM	11.3	35	0.32	251.2	111.7	Signal	F	Corridor will improve with extension of Truman	Study next CMS, review in E-W Study
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	DeRenne to 65th St	5107015	5107	1973.8	AM	23.7	35	0.68	18.4	0.0	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	DeRenne to 65th St	5107015	5107	1973.8	MD	24.6	35	0.70	15.9	2.0	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	DeRenne to 65th St	5107015	5107	1973.8	PM	25.0	35	0.71	15.3	6.7	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	65th St to 63rd St	5107016	5107	823.5	AM	25.2	35	0.72	13.2	6.3	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	65th St to 63rd St	5107016	5107	823.5	MD	15.6	35	0.44	20.5	12.0	Signal	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	65th St to 63rd St	5107016	5107	823.5	PM	18.2	35	0.52	23.7	16.7	Signal	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	63rd St to Columbus	5107017	5107	1490.8	AM	13.2	35	0.38	47.5	35.0	Signal	D	Short Distance between Columbus and LaRoche	Coordinate signals between Columbus and LaRoche
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	63rd St to Columbus	5107017	5107	1490.8	MD	23.8	35	0.68	18.0	12.3	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	63rd St to Columbus	5107017	5107	1490.8	PM	25.1	35	0.72	23.6	13.3	Signal	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Columbus to Delesseps	5107018	5107	235.1	AM	27.3	30	0.91	0.9	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Columbus to Delesseps	5107018	5107	235.1	MD	34.4	30	1.15	0.0	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Columbus to Delesseps	5107018	5107	235.1	PM	27.3	30	0.91	0.0	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Delesseps to 52nd St	5107019	5107	1995	AM	24.7	30	0.82	10.9	6.3	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Delesseps to 52nd St	5107019	5107	1995	MD	28.6	30	0.95	4.7	2.3	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Delesseps to 52nd St	5107019	5107	1995	PM	23.8	30	0.79	14.1	6.5	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	52nd St to Washington	5107020	5107	1382.6	AM	22.9	30	0.76	10.4	4.3	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	52nd St to Washington	5107020	5107	1382.6	MD	19.8	30	0.66	19.1	5.7	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	52nd St to Washington	5107020	5107	1382.6	PM	28.1	30	0.94	2.5	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Washington to Victory	5107021	5107	1225.2	AM	18.7	30	0.62	32.8	24.3	Signal	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Washington to Victory	5107021	5107	1225.2	MD	8.7	30	0.29	70.9	53.3	Signal	E	Excessive delay at Victory	Improved operations on Victory will reduce the delays on Waters
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Washington to Victory	5107021	5107	1225.2	PM	14.4	30	0.48	33.4	20.3	Signal	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Victory to 37th St	5107022	5107	1705.4	AM	24.5	30	0.82	11.6	6.7	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Victory to 37th St	5107022	5107	1705.4	MD	27.0	30	0.90	4.8	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Victory to 37th St	5107022	5107	1705.4	PM	19.3	30	0.64	24.2	1.8	Signal	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	37th St to Anderson	5107023	5107	2014.3	AM	27.5	25	1.10	7.1	7.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	37th St to Anderson	5107023	5107	2014.3	MD	18.5	25	0.74	20.5	17.0	Signal	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	37th St to Anderson	5107023	5107	2014.3	PM	19.0	25	0.76	22.2	14.8	Signal	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Anderson to Henry	5107024	5107	313.2	AM	26.3	30	0.88	2.0	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Anderson to Henry	5107024	5107	313.2	MD	11.5	30	0.38	16.5	8.7	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Anderson to Henry	5107024	5107	313.2	PM	23.2	30	0.77	2.5	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Henry to Gwinnett	5107025	5107	1592	AM	29.2	30	0.97	6.1	2.3	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Henry to Gwinnett	5107025	5107	1592	MD	19.8	30	0.66	18.5	1.3	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Henry to Gwinnett	5107025	5107	1592	PM	17.9	30	0.60	26.7	4.8	Signal	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Gwinnett to Wheaton	5107026	5107	722.7	AM	15.2	30	0.51	19.4	11.7	AWSC	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Gwinnett to Wheaton	5107026	5107	722.7	MD	18.7	30	0.62	10.4	3.3	AWSC	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - NB	Gwinnett to Wheaton	5107026	5107	722.7	PM	12.6	30	0.42	24.5	14.3	AWSC	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Wheaton to Gwinnett	5108001	5108	722.6	AM	17.3	30	0.58	12.6	3.0	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Wheaton to Gwinnett	5108001	5108	722.6	MD	19.6	30	0.65	8.0	1.5	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Wheaton to Gwinnett	5108001	5108	722.6	PM	18.3	30	0.61	10.3	2.3	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Gwinnett to Henry	5108002	5108	1592.1	AM	26.5	30	0.88	4.7	0.0	AWSC	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Gwinnett to Henry	5108002	5108	1592.1	MD	23.8	30	0.79	11.6	4.5	AWSC	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Gwinnett to Henry	5108002	5108	1592.1	PM	19.0	30	0.63	25.2	14.3	AWSC	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Henry to Anderson	5108003	5108	313.2	AM	23.1	30	0.77	1.5	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Henry to Anderson	5108003	5108	313.2	MD	15.4	30	0.51	9.5	4.3	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Henry to Anderson	5108003	5108	313.2	PM	14.4	30	0.48	14.4	7.3	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Anderson to 37th St	5108004	5108	2014.3	AM	26.3	25	1.05	3.3	3.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Anderson to 37th St	5108004	5108	2014.3	MD	27.0	25	1.08	8.3	2.5	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Anderson to 37th St	5108004	5108	2014.3	PM	22.0	25	0.88	9.9	6.7	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	37th St to Victory	5108005	5108	1705.4	AM	12.8	29	0.44	66.7	41.0	Signal	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	37th St to Victory	5108005	5108	1705.4	MD	10.4	30	0.35	78.9	63.5	Signal	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	37th St to Victory	5108005	5108	1705.4	PM	11.2	30	0.37	67.4	44.7	Signal	E	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Victory to Washington	5108006	5108	1225.1	AM	32.9	30	1.10	0.0	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Victory to Washington	5108006	5108	1225.1	MD	26.5	30	0.88	9.9	7.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Victory to Washington	5108006	5108	1225.1	PM	23.9	30	0.80	9.5	2.3	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Washington to 52nd St	5108007	5108	1382.7	AM	22.3	30	0.74	11.8	5.7	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Washington to 52nd St	5108007	5108	1382.7	MD	22.2	30	0.74	16.1	10.7	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Washington to 52nd St	5108007	5108	1382.7	PM	23.3	30	0.78	10.1	1.0	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	52nd St to Delesseps	5108008	5108	1995	AM	30.3	30	1.01	1.0	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	52nd St to Delesseps	5108008	5108	1995	MD	29.7	30	0.99	4.4	1.8	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	52nd St to Delesseps	5108008	5108	1995	PM	25.4	30	0.85	15.9	6.7	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Delesseps to Columbus	5108009	5108	235.1	AM	31.7	30	1.06	0.0	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Delesseps to Columbus	5108009	5108	235.1	MD	31.0	30	1.03	0.2	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Delesseps to Columbus	5108009	5108	235.1	PM	32.7	30	1.09	0.5	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Columbus to 63rd St	5108010	5108	1490.8	AM	26.4	28	0.94	6.9	6.7	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Columbus to 63rd St	5108010	5108	1490.8	MD	24.7	35	0.71	17.9	10.8	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Columbus to 63rd St	5108010	5108	1490.8	PM	29.5	35	0.84	9.6	4.3	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	63rd St to 65th St	5108011	5108	823.5	AM	30.0	31	0.97	1.5	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	63rd St to 65th St	5108011	5108	823.5	MD	23.3	35	0.67	10.4	4.3	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	63rd St to 65th St	5108011	5108	823.5	PM	22.3	35	0.64	12.2	7.3	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	65th St to DeRenne	5108012	5108	1973.7	AM	15.0	35	0.43	58.8	41.3	Signal	E	Corridor will improve with extension of Truman	Study next CMS
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	65th St to DeRenne	5108012	5108	1973.7	MD	20.6	35	0.59	40.8	26.0	Signal	D	Corridor will improve with extension of Truman	Study next CMS
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	65th St to DeRenne	5108012	5108	1973.7	PM	17.2	35	0.49	50.1	13.0	Signal	D	Corridor will improve with extension of Truman	Study next CMS
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	DeRenne to Stephenson	5108013	5108	5497.8	AM	33.7	32	1.05	0.5	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	DeRenne to Stephenson	5108013	5108	5497.8	MD	32.6	35	0.93	8.0	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	DeRenne to Stephenson	5108013	5108	5497.8	PM	14.0	35	0.40	159.8	47.3	Signal	F	Corridor will improve with extension of Truman	Study next CMS
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Stephenson to Eisenhower	5108014	5108	1307.7	AM	19.6	40	0.49	26.7	15.7	Signal	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Stephenson to Eisenhower	5108014	5108	1307.7	MD	21.8	40	0.54	25.6	13.3	Signal	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Stephenson to Eisenhower	5108014	5108	1307.7	PM	13.3	40	0.33	48.8	29.7	Signal	D	Corridor will improve with extension of Truman and Whitfield widening	Study next CMS
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Eisenhower to Mall Blvd	5108015	5108	2848.6	AM	32.0	40	0.80	12.6	7.7	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Eisenhower to Mall Blvd	5108015	5108	2848.6	MD	31.1	40	0.78	15.5	7.3	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Eisenhower to Mall Blvd	5108015	5108	2848.6	PM	26.3	40	0.66	24.9	12.3	Signal	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Mall Blvd to Montgomery Cross	5108016	5108	1919.6	AM	24.3	40	0.61	29.4	20.3	Signal	C		C
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Mall Blvd to Montgomery Cross	5108016	5108	1919.6	MD	32.3	40	0.81	8.9	1.8	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Mall Blvd to Montgomery Cross	5108016	5108	1919.6	PM	17.9	40	0.45	41.1	21.0	Signal	D	Corridor will improve with extension of Truman and Whitfield widening	Study next CMS
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Montgomery Cross to City Limit	5108017	5108	2227.8	AM	41.5	45	0.92	2.8	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Montgomery Cross to City Limit	5108017	5108	2227.8	MD	44.3	45	0.98	1.0	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Montgomery Cross to City Limit	5108017	5108	2227.8	PM	43.2	45	0.96	3.5	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	City Limit to Kings Way	5108018	5108	2618.1	AM	41.1	40	1.03	2.0	0.0	City Limit	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	City Limit to Kings Way	5108018	5108	2618.1	MD	41.6	40	1.04	4.1	0.0	City Limit	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	City Limit to Kings Way	5108018	5108	2618.1	PM	31.8	40	0.80	11.7	0.0	City Limit	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Kings Way to Old Montgomery Rd	5108019	5108	1676	AM	33.5	35	0.94	4.0	0.3	Flashing Yellow	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Kings Way to Old Montgomery Rd	5108019	5108	1676	MD	34.6	35	0.97	3.8	0.0	Flashing Yellow	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Kings Way to Old Montgomery Rd	5108019	5108	1676	PM	30.5	35	0.86	5.5	0.0	Flashing Yellow	B		B

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Old Montgomery Rd to Whitfield	5108020	5108	4798.2	AM	42.5	40	1.06	0.9	0.0	Cross Street	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Old Montgomery Rd to Whitfield	5108020	5108	4798.2	MD	39.7	40	0.99	3.8	0.0	Cross Street	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Old Montgomery Rd to Whitfield	5108020	5108	4798.2	PM	42.5	40	1.06	1.5	0.0	Cross Street	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Whitfield to Ferguson	5108021	5108	2252.6	AM	46.2	50	0.92	2.6	0.0	Cross Street	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Whitfield to Ferguson	5108021	5108	2252.6	MD	24.6	50	0.49	33.3	21.0	Cross Street	D	Excessive delays at Ferguson	Priority I - Widen from 2-4 between Old Whitfield and Ferguson
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Whitfield to Ferguson	5108021	5108	2252.6	PM	37.2	50	0.74	10.5	0.0	Cross Street	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Ferguson to Moon River	5108022	5108	5297.5	AM	48.0	50	0.96	5.0	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Ferguson to Moon River	5108022	5108	5297.5	MD	46.2	50	0.92	8.3	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Ferguson to Moon River	5108022	5108	5297.5	PM	45.9	50	0.92	6.5	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Moon River to Intercoastal Waterway	5108023	5108	5971.9	AM	51.8	50	1.04	0.7	0.0	Cross Street	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Moon River to Intercoastal Waterway	5108023	5108	5971.9	MD	51.2	50	1.02	0.8	0.0	Cross Street	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Moon River to Intercoastal Waterway	5108023	5108	5971.9	PM	52.7	50	1.05	1.0	0.0	Cross Street	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Intercoastal Waterway to Landings/Village	5108024	5108	4799.3	AM	55.8	40	1.40	0.0	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Intercoastal Waterway to Landings/Village	5108024	5108	4799.3	MD	37.1	40	0.93	13.7	8.0	Signal	B		B
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Intercoastal Waterway to Landings/Village	5108024	5108	4799.3	PM	44.8	40	1.12	0.0	0.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Landings/Village to Green Island	5108025	5108	1197.7	AM	34.3	40	0.86	4.6	0.7	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Landings/Village to Green Island	5108025	5108	1197.7	MD	33.0	40	0.83	5.0	1.0	Signal	A		A
WATERS/WHITFIELD/ DIAMOND CAUSWAY - SB	Landings/Village to Green Island	5108025	5108	1197.7	PM	23.9	40	0.60	14.3	1.3	Signal	B		B
MCWHORTER - EB	Waters to Landings	5109001	5109	7729	AM	43.4	50	0.87	15.9	0.0	AWSC	C		C
MCWHORTER - EB	Waters to Landings	5109001	5109	7729	MD	46.6	50	0.93	7.6	0.0	AWSC	A		A
MCWHORTER - EB	Waters to Landings	5109001	5109	7729	PM	44.1	50	0.88	14.0	0.0	AWSC	B		B
MCWHORTER - EB	Landings to Roadway Split	5109002	5109	2850.7	AM	47.0	50	0.94	2.5	0.0	Cross Street	A		A
MCWHORTER - EB	Landings to Roadway Split	5109002	5109	2850.7	MD	49.0	50	0.98	0.8	0.0	Cross Street	A		A
MCWHORTER - EB	Landings to Roadway Split	5109002	5109	2850.7	PM	46.9	50	0.94	2.5	0.0	Cross Street	A		A
MCWHORTER - EB	Roadway Split to End of Route	5109003	5109	5792.9	AM	49.0	50	0.98	1.6	0.0	Cross Street	A		A
MCWHORTER - EB	Roadway Split to End of Route	5109003	5109	5792.9	MD	49.5	50	0.99	0.8	0.0	Cross Street	A		A
MCWHORTER - EB	Roadway Split to End of Route	5109003	5109	5792.9	PM	46.5	50	0.93	5.8	0.0	Cross Street	A		A
MCWHORTER - WB	End of Route to Roadway Split	5110001	5110	5792.9	AM	46.6	50	0.93	5.7	0.0	Signal	A		A
MCWHORTER - WB	End of Route to Roadway Split	5110001	5110	5792.9	MD	49.8	50	1.00	0.3	0.0	Signal	A		A
MCWHORTER - WB	End of Route to Roadway Split	5110001	5110	5792.9	PM	50.8	50	1.02	0.0	0.0	Signal	A		A
MCWHORTER - WB	Roadway Split to Landings	5110002	5110	2850.6	AM	47.7	50	0.95	1.8	0.0	Cross Street	A		A
MCWHORTER - WB	Roadway Split to Landings	5110002	5110	2850.6	MD	49.3	50	0.99	0.5	0.0	Cross Street	A		A
MCWHORTER - WB	Roadway Split to Landings	5110002	5110	2850.6	PM	51.1	50	1.02	0.0	0.0	Cross Street	A		A
MCWHORTER - WB	Landings to Waters	5110003	5110	7729	AM	45.1	50	0.90	11.3	2.0	Cross Street	A		A
MCWHORTER - WB	Landings to Waters	5110003	5110	7729	MD	45.1	50	0.90	11.5	3.0	Cross Street	A		A
MCWHORTER - WB	Landings to Waters	5110003	5110	7729	PM	45.2	50	0.90	11.2	2.0	Cross Street	A		A
WHITFIELD - NB	Lucas to Shipyard	5111002	5111	3143.8	AM	36.2	35	1.03	0.0	0.0	Cross Street	A		A
WHITFIELD - NB	Lucas to Shipyard	5111002	5111	3143.8	MD	36.1	35	1.03	0.0	0.0	Cross Street	A		A
WHITFIELD - NB	Lucas to Shipyard	5111002	5111	3143.8	PM	35.3	35	1.01	0.8	0.0	Cross Street	A		A
WHITFIELD - NB	Shipyard to Mendel	5111003	5111	571.7	AM	38.7	35	1.11	0.0	0.0	Cross Street	A		A
WHITFIELD - NB	Shipyard to Mendel	5111003	5111	571.7	MD	37.7	35	1.08	0.0	0.0	Cross Street	A		A
WHITFIELD - NB	Shipyard to Mendel	5111003	5111	571.7	PM	38.5	35	1.10	0.0	0.0	Cross Street	A		A
WHITFIELD - NB	Mendel to Rivers Ben	5111004	5111	2681.9	AM	38.9	35	1.11	0.0	0.0	Cross Street	A		A
WHITFIELD - NB	Mendel to Rivers Ben	5111004	5111	2681.9	MD	38.4	35	1.10	0.0	0.0	Cross Street	A		A
WHITFIELD - NB	Mendel to Rivers Ben	5111004	5111	2681.9	PM	37.6	35	1.07	0.0	0.0	Cross Street	A		A
WHITFIELD - NB	Rivers Ben to Waters	5111005	5111	4833	AM	31.5	35	0.90	11.8	12.0	Cross Street	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
WHITFIELD - NB	Rivers Ben to Waters	5111005	5111	4833	MD	34.8	35	0.99	1.3	0.0	Cross Street	A		A
WHITFIELD - NB	Rivers Ben to Waters	5111005	5111	4833	PM	30.4	35	0.87	16.0	6.3	Cross Street	A		A
WHITFIELD - SB	Waters to Rivers Ben	5112001	5112	4833	AM	35.3	35	1.01	0.0	0.0	Signal	A		A
WHITFIELD - SB	Waters to Rivers Ben	5112001	5112	4833	MD	39.4	35	1.13	0.0	0.0	Signal	A		A
WHITFIELD - SB	Waters to Rivers Ben	5112001	5112	4833	PM	35.9	35	1.02	0.6	0.0	Signal	A		A
WHITFIELD - SB	Rivers Ben to Mendel	5112002	5112	2682	AM	36.4	35	1.04	0.1	0.0	Cross Street	A		A
WHITFIELD - SB	Rivers Ben to Mendel	5112002	5112	2682	MD	38.9	35	1.11	0.0	0.0	Cross Street	A		A
WHITFIELD - SB	Rivers Ben to Mendel	5112002	5112	2682	PM	37.3	35	1.07	0.0	0.0	Cross Street	A		A
WHITFIELD - SB	Mendel to Shipyard	5112003	5112	571.6	AM	35.1	35	1.00	0.2	0.0	Cross Street	A		A
WHITFIELD - SB	Mendel to Shipyard	5112003	5112	571.6	MD	39.4	35	1.13	0.1	0.0	Cross Street	A		A
WHITFIELD - SB	Mendel to Shipyard	5112003	5112	571.6	PM	34.8	35	0.99	0.4	0.0	Cross Street	A		A
WHITFIELD - SB	Shipyard to Lucas	5112004	5112	3143.8	AM	31.9	35	0.91	6.0	0.3	Cross Street	A		A
WHITFIELD - SB	Shipyard to Lucas	5112004	5112	3143.8	MD	35.9	35	1.03	1.1	0.0	Cross Street	A		A
WHITFIELD - SB	Shipyard to Lucas	5112004	5112	3143.8	PM	32.7	35	0.93	4.2	0.0	Cross Street	A		A
FERGUSON - NB	Shipyard to Diamond Causeway	5113002	5113	6509.6	AM	35.6	40	0.89	14.2	3.0	TWSC	B		B
FERGUSON - NB	Shipyard to Diamond Causeway	5113002	5113	6509.6	MD	31.5	40	0.79	35.8	23.0	TWSC	E	Canopy - Constrained Corridor	Constrained Corridor - Secondary roadway for access, higher speeds not desired
FERGUSON - NB	Shipyard to Diamond Causeway	5113002	5113	6509.6	PM	30.5	40	0.76	36.6	15.3	TWSC	E	Canopy - Constrained Corridor	Constrained Corridor - Secondary roadway for access, higher speeds not desired
FERGUSON - NB	Diamond Causeway to Winterberry	5113003	5113	7593.1	AM	39.1	40	0.98	4.2	0.0	Signal	A		A
FERGUSON - NB	Diamond Causeway to Winterberry	5113003	5113	7593.1	MD	44.6	40	1.12	0.1	0.0	Signal	A		A
FERGUSON - NB	Diamond Causeway to Winterberry	5113003	5113	7593.1	PM	40.3	40	1.01	1.5	0.0	Signal	A		A
FERGUSON - NB	Winterberry to Skidaway	5113004	5113	4856.3	AM	31.5	40	0.79	22.2	11.3	Cross Street	B		B
FERGUSON - NB	Winterberry to Skidaway	5113004	5113	4856.3	MD	34.5	40	0.86	14.7	10.8	Cross Street	B		B
FERGUSON - NB	Winterberry to Skidaway	5113004	5113	4856.3	PM	32.3	40	0.81	20.4	10.8	Cross Street	B		B
FERGUSON - NB	Skidaway to La Roche	5113005	5113	6100.4	AM	36.1	40	0.90	11.3	0.0	Signal	B		B
FERGUSON - NB	Skidaway to La Roche	5113005	5113	6100.4	MD	36.6	40	0.92	11.0	4.0	Signal	B		B
FERGUSON - NB	Skidaway to La Roche	5113005	5113	6100.4	PM	33.2	40	0.83	22.2	1.3	Signal	C		C
FERGUSON - SB	La Roche to Skidaway	5114001	5114	6100.5	AM	26.2	40	0.65	56.7	26.8	TWSC	F	Canopy - Constrained Corridor	Constrained Corridor - Secondary roadway for access, higher speeds not desired
FERGUSON - SB	La Roche to Skidaway	5114001	5114	6100.5	MD	29.8	40	0.74	36.5	19.0	TWSC	E	Canopy - Constrained Corridor	Constrained Corridor - Secondary roadway for access, higher speeds not desired
FERGUSON - SB	La Roche to Skidaway	5114001	5114	6100.5	PM	26.2	40	0.66	54.5	19.5	TWSC	F	Canopy - Constrained Corridor	Constrained Corridor - Secondary roadway for access, higher speeds not desired
FERGUSON - SB	Skidaway to Winterberry	5114002	5114	4856.2	AM	38.6	40	0.96	3.1	0.0	Signal	A		A
FERGUSON - SB	Skidaway to Winterberry	5114002	5114	4856.2	MD	38.8	40	0.97	3.8	0.0	Signal	A		A
FERGUSON - SB	Skidaway to Winterberry	5114002	5114	4856.2	PM	34.9	40	0.87	12.3	0.0	Signal	B		B
FERGUSON - SB	Winterberry to Diamond Causeway	5114003	5114	7593.1	AM	32.7	40	0.82	32.4	31.3	Cross Street	B		B
FERGUSON - SB	Winterberry to Diamond Causeway	5114003	5114	7593.1	MD	34.1	40	0.85	22.9	23.5	Cross Street	B		B
FERGUSON - SB	Winterberry to Diamond Causeway	5114003	5114	7593.1	PM	33.5	40	0.84	26.1	18.0	Cross Street	B		B
FERGUSON - SB	Diamond Causeway to Shipyard	5114004	5114	6509.6	AM	32.9	40	0.82	24.5	6.0	Signal	C		C
FERGUSON - SB	Diamond Causeway to Shipyard	5114004	5114	6509.6	MD	35.3	40	0.88	14.9	6.5	Signal	B		B
FERGUSON - SB	Diamond Causeway to Shipyard	5114004	5114	6509.6	PM	34.5	40	0.86	18.3	3.3	Signal	B		B
SKIDAWAY - NB	Parkersburg to Ferguson	5115002	5115	3509.5	AM	33.0	35	0.94	7.9	4.5	TWSC	A		A
SKIDAWAY - NB	Parkersburg to Ferguson	5115002	5115	3509.5	MD	33.5	35	0.96	5.8	3.3	TWSC	A		A
SKIDAWAY - NB	Parkersburg to Ferguson	5115002	5115	3509.5	PM	38.8	35	1.11	0.0	3.0	TWSC	A		A
SKIDAWAY - NB	Ferguson to Montgomery Cross	5115003	5115	1605.2	AM	24.3	35	0.69	16.5	6.8	Signal	B		B
SKIDAWAY - NB	Ferguson to Montgomery Cross	5115003	5115	1605.2	MD	29.0	35	0.83	8.2	3.0	Signal	A		A
SKIDAWAY - NB	Ferguson to Montgomery Cross	5115003	5115	1605.2	PM	21.9	35	0.62	19.3	5.7	Signal	B		B
SKIDAWAY - NB	Montgomery Cross to Eisenhower	5115004	5115	3950.4	AM	19.9	35	0.57	67.3	44.0	Signal	E	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
SKIDAWAY - NB	Montgomery Cross to Eisenhower	5115004	5115	3950.4	MD	27.9	35	0.80	25.6	14.3	Signal	C		C
SKIDAWAY - NB	Montgomery Cross to Eisenhower	5115004	5115	3950.4	PM	17.6	35	0.50	79.7	47.7	Signal	E	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
SKIDAWAY - NB	Eisenhower to Bonna Bella	5115005	5115	4611.3	AM	32.1	40	0.80	19.7	1.8	Signal	B		B
SKIDAWAY - NB	Eisenhower to Bonna Bella	5115005	5115	4611.3	MD	33.7	40	0.84	15.4	3.3	Signal	B		B

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
SKIDAWAY - NB	Eisenhower to Bonna Bella	5115005	5115	4611.3	PM	29.0	40	0.73	32.2	3.3	Signal	C		C
SKIDAWAY - NB	Bonna Bella to DeRenne	5115006	5115	2693.8	AM	27.0	34	0.80	17.4	9.0	Signal	B		B
SKIDAWAY - NB	Bonna Bella to DeRenne	5115006	5115	2693.8	MD	22.2	40	0.55	39.6	17.5	Signal	D	Corridor will improve with extension of Truman	Study next CMS
SKIDAWAY - NB	Bonna Bella to DeRenne	5115006	5115	2693.8	PM	29.5	40	0.74	17.3	0.0	Signal	B		B
SKIDAWAY - NB	DeRenne to La Roche	5115007	5115	3331.8	AM	25.8	30	0.86	13.7	0.0	Signal	B		B
SKIDAWAY - NB	DeRenne to La Roche	5115007	5115	3331.8	MD	30.9	35	0.88	9.4	1.8	Signal	A		A
SKIDAWAY - NB	DeRenne to La Roche	5115007	5115	3331.8	PM	20.5	35	0.59	50.6	22.3	Signal	D	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
SKIDAWAY - NB	La Roche to 52nd St	5115008	5115	2124.2	AM	26.5	27	0.98	5.6	1.0	Signal	A		A
SKIDAWAY - NB	La Roche to 52nd St	5115008	5115	2124.2	MD	28.1	35	0.80	12.1	1.5	Signal	B		B
SKIDAWAY - NB	La Roche to 52nd St	5115008	5115	2124.2	PM	14.8	35	0.42	58.7	18.0	Signal	E	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
SKIDAWAY - NB	52nd St to Colorado	5115009	5115	2264.5	AM	24.6	34	0.72	19.5	5.3	Signal	B		B
SKIDAWAY - NB	52nd St to Colorado	5115009	5115	2264.5	MD	25.9	35	0.74	18.4	5.8	Signal	B		B
SKIDAWAY - NB	52nd St to Colorado	5115009	5115	2264.5	PM	20.6	35	0.59	33.6	11.0	Signal	C		C
SKIDAWAY - NB	Colorado to Victory	5115010	5115	953.4	AM	15.7	35	0.45	39.6	25.3	Signal	D	Delay at Victory, sufficient capacity for all mvmt	No dedicated right turn bay, may consider, coordinating Victory timing will improve int ops
SKIDAWAY - NB	Colorado to Victory	5115010	5115	953.4	MD	10.8	35	0.31	42.8	26.3	Signal	D	Delay at Victory, sufficient capacity for all mvmt	No dedicated right turn bay, may consider, coordinating Victory timing will improve int ops
SKIDAWAY - NB	Colorado to Victory	5115010	5115	953.4	PM	8.4	35	0.24	63.7	47.3	Signal	E	Delay at Victory, sufficient capacity for all mvmt	No dedicated right turn bay, may consider, coordinating Victory timing will improve int ops
SKIDAWAY - NB	Victory to 36th St	5115011	5115	2607.5	AM	29.3	35	0.84	13.2	3.0	Signal	B		B
SKIDAWAY - NB	Victory to 36th St	5115011	5115	2607.5	MD	26.7	35	0.76	19.9	7.0	Signal	B		B
SKIDAWAY - NB	Victory to 36th St	5115011	5115	2607.5	PM	22.3	35	0.64	33.1	18.5	Signal	C		C
SKIDAWAY - NB	36th St to Henry/Anderson	5115012	5115	2853.6	AM	31.8	35	0.91	6.8	1.3	Signal	A		A
SKIDAWAY - NB	36th St to Henry/Anderson	5115012	5115	2853.6	MD	22.7	35	0.65	32.7	14.8	Signal	C		C
SKIDAWAY - NB	36th St to Henry/Anderson	5115012	5115	2853.6	PM	26.9	35	0.77	18.9	7.8	Signal	B		B
SKIDAWAY - NB	Henry/Anderson to Wheaton	5115013	5115	1912.7	AM	29.0	30	0.97	1.5	0.0	Signal	A		A
SKIDAWAY - NB	Henry/Anderson to Wheaton	5115013	5115	1912.7	MD	25.1	30	0.84	9.0	1.3	Signal	A		A
SKIDAWAY - NB	Henry/Anderson to Wheaton	5115013	5115	1912.7	PM	28.8	30	0.96	6.9	4.3	Signal	A		A
SKIDAWAY - SB	Wheaton to Henry/Anderson	5116001	5116	1912.8	AM	21.9	30	0.73	18.7	13.3	TWSC	C		C
SKIDAWAY - SB	Wheaton to Henry/Anderson	5116001	5116	1912.8	MD	16.0	30	0.53	37.5	38.5	TWSC	E	Minor Approach to 5-legged intersection	Optimize Signal at Anderson
SKIDAWAY - SB	Wheaton to Henry/Anderson	5116001	5116	1912.8	PM	14.2	30	0.47	48.0	37.3	TWSC	E	Minor Approach to 5-legged intersection	Optimize Signal at Anderson
SKIDAWAY - SB	Henry/Anderson to 36th St	5116002	5116	2853.5	AM	20.4	35	0.58	42.9	16.0	Signal	D	Short Distance between Penn and 36th St	Coordinate signals between Penn and 36th St
SKIDAWAY - SB	Henry/Anderson to 36th St	5116002	5116	2853.5	MD	33.0	35	0.94	4.7	7.5	Signal	A		A
SKIDAWAY - SB	Henry/Anderson to 36th St	5116002	5116	2853.5	PM	26.2	35	0.75	20.1	8.3	Signal	C		C
SKIDAWAY - SB	36th St to Victory	5116003	5116	2607.6	AM	13.6	35	0.39	83.8	59.3	Signal	F	Delay at Victory, sufficient capacity for all mvmt	No dedicated right turn bay, may consider, coordinating Victory timing will improve int ops
SKIDAWAY - SB	36th St to Victory	5116003	5116	2607.6	MD	22.8	35	0.65	27.5	8.5	Signal	C		C
SKIDAWAY - SB	36th St to Victory	5116003	5116	2607.6	PM	19.7	35	0.56	42.6	24.0	Signal	D	Delay at Victory, sufficient capacity for all mvmt	No dedicated right turn bay, may consider, coordinating Victory timing will improve int ops
SKIDAWAY - SB	Victory to Colorado	5116004	5116	953.3	AM	24.3	35	0.69	9.4	1.0	Signal	A		A
SKIDAWAY - SB	Victory to Colorado	5116004	5116	953.3	MD	20.4	35	0.58	15.1	6.0	Signal	B		B
SKIDAWAY - SB	Victory to Colorado	5116004	5116	953.3	PM	17.3	35	0.49	26.2	13.0	Signal	C		C
SKIDAWAY - SB	Colorado to 52nd St	5116005	5116	2264.6	AM	27.2	35	0.78	12.9	4.7	Signal	B		B
SKIDAWAY - SB	Colorado to 52nd St	5116005	5116	2264.6	MD	25.6	35	0.73	16.5	0.0	Signal	B		B
SKIDAWAY - SB	Colorado to 52nd St	5116005	5116	2264.6	PM	16.4	35	0.47	52.0	27.7	Signal	D	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
SKIDAWAY - SB	52nd St to La Roche	5116006	5116	2124.2	AM	28.4	35	0.81	9.7	0.0	Signal	A		A
SKIDAWAY - SB	52nd St to La Roche	5116006	5116	2124.2	MD	28.1	35	0.80	9.9	0.0	Signal	A		A
SKIDAWAY - SB	52nd St to La Roche	5116006	5116	2124.2	PM	23.2	35	0.66	25.5	13.0	Signal	C		C
SKIDAWAY - SB	La Roche to DeRenne	5116007	5116	3331.7	AM	13.3	35	0.38	126.9	85.5	Signal	F	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
SKIDAWAY - SB	La Roche to DeRenne	5116007	5116	3331.7	MD	27.3	35	0.78	18.1	2.0	Signal	B		B
SKIDAWAY - SB	La Roche to DeRenne	5116007	5116	3331.7	PM	19.9	35	0.57	50.1	24.3	Signal	D	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
SKIDAWAY - SB	DeRenne to Bonna Bella	5116008	5116	2693.9	AM	26.6	40	0.66	24.5	1.3	Signal	C		C
SKIDAWAY - SB	DeRenne to Bonna Bella	5116008	5116	2693.9	MD	28.9	40	0.72	17.3	0.0	Signal	B		B
SKIDAWAY - SB	DeRenne to Bonna Bella	5116008	5116	2693.9	PM	27.4	40	0.69	24.0	4.7	Signal	C		C
SKIDAWAY - SB	Bonna Bella to Eisenhower	5116009	5116	4611.3	AM	27.5	40	0.69	47.3	25.3	Signal	D	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
SKIDAWAY - SB	Bonna Bella to Eisenhower	5116009	5116	4611.3	MD	27.5	40	0.69	36.6	5.0	Signal	D	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
SKIDAWAY - SB	Bonna Bella to Eisenhower	5116009	5116	4611.3	PM	21.4	40	0.53	68.5	29.7	Signal	E	Corridor will improve with extension of Truman and Widening of Skidaway	Study next CMS
SKIDAWAY - SB	Eisenhower to Montgomery Cross	5116010	5116	3950.4	AM	32.0	35	0.91	7.3	0.0	Signal	A		A
SKIDAWAY - SB	Eisenhower to Montgomery Cross	5116010	5116	3950.4	MD	31.9	35	0.91	7.6	0.0	Signal	A		A
SKIDAWAY - SB	Eisenhower to Montgomery Cross	5116010	5116	3950.4	PM	29.4	35	0.84	18.5	4.3	Signal	B		B
SKIDAWAY - SB	Montgomery Cross to Ferguson	5116011	5116	1605.1	AM	18.8	35	0.54	29.1	17.0	Signal	C		C
SKIDAWAY - SB	Montgomery Cross to Ferguson	5116011	5116	1605.1	MD	25.1	35	0.72	13.5	5.0	Signal	B		B
SKIDAWAY - SB	Montgomery Cross to Ferguson	5116011	5116	1605.1	PM	20.5	35	0.59	29.9	5.7	Signal	C		C
SKIDAWAY - SB	Ferguson to Parkersburg	5116012	5116	3509.5	AM	40.6	35	1.16	0.7	0.0	Signal	A		A
SKIDAWAY - SB	Ferguson to Parkersburg	5116012	5116	3509.5	MD	38.3	35	1.10	0.0	0.0	Signal	A		A
SKIDAWAY - SB	Ferguson to Parkersburg	5116012	5116	3509.5	PM	39.3	35	1.12	0.5	0.0	Signal	A		A
PENNSYLVANIA - NB	Skidaway to Gwinnett	5117001	5117	3432.4	AM	30.8	30	1.03	3.2	2.5	Signal	A		A
PENNSYLVANIA - NB	Skidaway to Gwinnett	5117001	5117	3432.4	MD	30.9	30	1.03	0.0	0.0	Signal	A		A
PENNSYLVANIA - NB	Skidaway to Gwinnett	5117001	5117	3432.4	PM	26.9	30	0.90	11.7	4.5	Signal	B		B
PENNSYLVANIA - NB	Gwinnett to Capital	5117002	5117	2779	AM	31.0	25	1.24	3.0	2.8	Signal	A		A
PENNSYLVANIA - NB	Gwinnett to Capital	5117002	5117	2779	MD	31.3	25	1.25	0.0	4.5	Signal	A		A
PENNSYLVANIA - NB	Gwinnett to Capital	5117002	5117	2779	PM	23.6	25	0.94	8.3	5.8	Signal	A		A
PENNSYLVANIA - NB	Capital to Islands Expressway	5117003	5117	1858.6	AM	19.5	30	0.65	22.2	7.5	Signal	C		C
PENNSYLVANIA - NB	Capital to Islands Expressway	5117003	5117	1858.6	MD	19.9	30	0.66	21.4	12.0	Signal	C		C
PENNSYLVANIA - NB	Capital to Islands Expressway	5117003	5117	1858.6	PM	13.8	30	0.46	63.8	45.5	Signal	E	Minor Approach at Bay	Cross Street Delay Expected
PENNSYLVANIA - SB	Islands Expressway to Capital	5118001	5118	1858.6	AM	32.1	29	1.10	0.5	0.0	Signal	A		A
PENNSYLVANIA - SB	Islands Expressway to Capital	5118001	5118	1858.6	MD	27.1	30	0.90	9.9	7.5	Signal	A		A
PENNSYLVANIA - SB	Islands Expressway to Capital	5118001	5118	1858.6	PM	18.1	30	0.60	58.4	16.3	Signal	E	Signal Operations at Capital	Signal Operations - at Capital
PENNSYLVANIA - SB	Capital to Gwinnett	5118002	5118	2778.9	AM	30.4	25	1.22	1.6	2.3	Signal	A		A
PENNSYLVANIA - SB	Capital to Gwinnett	5118002	5118	2778.9	MD	32.8	25	1.31	0.0	3.0	Signal	A		A
PENNSYLVANIA - SB	Capital to Gwinnett	5118002	5118	2778.9	PM	25.4	25	1.02	5.8	1.3	Signal	A		A
PENNSYLVANIA - SB	Gwinnett to Skidaway	5118003	5118	3432.5	AM	26.5	30	0.88	13.0	9.5	Signal	B		B
PENNSYLVANIA - SB	Gwinnett to Skidaway	5118003	5118	3432.5	MD	29.9	30	1.00	0.7	1.0	Signal	A		A
PENNSYLVANIA - SB	Gwinnett to Skidaway	5118003	5118	3432.5	PM	26.0	30	0.87	12.9	7.5	Signal	B		B
TIBET - EB	Middleground to Largo	5121001	5121	2293.8	AM	27.7	30	0.92	5.6	0.3	Signal	A		A
TIBET - EB	Middleground to Largo	5121001	5121	2293.8	MD	25.0	30	0.83	10.2	2.0	Signal	B		B
TIBET - EB	Middleground to Largo	5121001	5121	2293.8	PM	24.2	30	0.81	12.4	5.0	Signal	B		B
TIBET - EB	Largo to Abercorn	5121002	5121	4218.9	AM	23.5	30	0.79	34.8	28.3	AWSC	D	Minor Approach at Abercorn	TIP #532570 for Intersection Improvement
TIBET - EB	Largo to Abercorn	5121002	5121	4218.9	MD	25.2	35	0.72	37.7	25.0	AWSC	E	Minor Approach at Abercorn	TIP #532570 for Intersection Improvement
TIBET - EB	Largo to Abercorn	5121002	5121	4218.9	PM	17.6	35	0.50	82.4	56.3	AWSC	F	Minor Approach at Abercorn	TIP #532570 for Intersection Improvement
TIBET - EB	Abercorn to White Bluff	5121003	5121	704.2	AM	7.6	35	0.22	51.5	38.5	Signal	D	Minor Approach at Bill White	Cross street delays expected
TIBET - EB	Abercorn to White Bluff	5121003	5121	704.2	MD	13.0	35	0.37	37.3	26.7	Signal	D	Minor Approach at Bill White	Cross street delays expected
TIBET - EB	Abercorn to White Bluff	5121003	5121	704.2	PM	15.7	35	0.45	25.5	9.7	Signal	C		C
TIBET - WB	White Bluff to Abercorn	5122001	5122	704.2	AM	7.4	35	0.21	77.8	61.0	Signal	E	Minor Approach at Abercorn	TIP #532570 for Intersection Improvement
TIBET - WB	White Bluff to Abercorn	5122001	5122	704.2	MD	11.9	35	0.34	48.0	35.0	Signal	D	Minor Approach at Abercorn	TIP #532570 for Intersection Improvement
TIBET - WB	White Bluff to Abercorn	5122001	5122	704.2	PM	13.9	35	0.40	52.2	38.7	Signal	D	Minor Approach at Abercorn	TIP #532570 for Intersection Improvement
TIBET - WB	Abercorn to Largo	5122002	5122	4218.9	AM	31.0	35	0.89	12.4	2.8	Signal	B		B
TIBET - WB	Abercorn to Largo	5122002	5122	4218.9	MD	30.8	35	0.88	16.1	2.0	Signal	B		B
TIBET - WB	Abercorn to Largo	5122002	5122	4218.9	PM	30.2	35	0.86	13.7	4.5	Signal	B		B
TIBET - WB	Largo to Middleground	5122003	5122	2293.9	AM	21.3	30	0.71	25.0	22.0	AWSC	C		C
TIBET - WB	Largo to Middleground	5122003	5122	2293.9	MD	23.7	30	0.79	14.9	10.0	AWSC	B		B
TIBET - WB	Largo to Middleground	5122003	5122	2293.9	PM	20.9	30	0.70	26.1	19.8	AWSC	D	Minor Approach at Middleground	Cross Street Delay Expected
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Skidaway to Cornus	5123001	5123	4371.8	AM	29.6	25	1.18	3.7	7.2	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Skidaway to Cornus	5123001	5123	4371.8	MD	32.1	25	1.29	0.0	1.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Skidaway to Cornus	5123001	5123	4371.8	PM	28.3	25	1.13	3.1	0.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Cornus to Norwood	5123002	5123	5033.7	AM	37.8	35	1.08	0.7	0.0	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Cornus to Norwood	5123002	5123	5033.7	MD	36.3	35	1.04	1.1	0.0	Cross Street	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Cornus to Norwood	5123002	5123	5033.7	PM	36.1	35	1.03	4.4	0.2	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Norwood to Nottingham	5123003	5123	1777.6	AM	37.1	35	1.06	0.0	0.0	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Norwood to Nottingham	5123003	5123	1777.6	MD	34.2	35	0.98	2.8	0.0	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Norwood to Nottingham	5123003	5123	1777.6	PM	33.1	35	0.95	3.3	0.0	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Nottingham to Jasmine	5123004	5123	5398.5	AM	34.3	35	0.98	6.6	5.6	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Nottingham to Jasmine	5123004	5123	5398.5	MD	36.6	35	1.05	2.0	0.0	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Nottingham to Jasmine	5123004	5123	5398.5	PM	35.0	35	1.00	5.0	2.3	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Jasmine to DeRenne	5123005	5123	724.7	AM	23.3	35	0.67	8.5	2.6	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Jasmine to DeRenne	5123005	5123	724.7	MD	37.3	35	1.07	0.4	0.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Jasmine to DeRenne	5123005	5123	724.7	PM	23.6	35	0.67	8.7	1.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	DeRenne to Skidaway	5123006	5123	3966.4	AM	25.7	35	0.73	33.8	19.6	Signal	C		C
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	DeRenne to Skidaway	5123006	5123	3966.4	MD	27.9	35	0.80	35.2	27.7	Signal	D	Delays at Skidaway and SR 21	Priority II - Operational from City limits to Skidaway, will improve with Skidaway widening, Optimize signal timing
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	DeRenne to Skidaway	5123006	5123	3966.4	PM	19.7	35	0.56	62.8	39.0	Signal	E	Delays at Skidaway and SR 21	Priority II - Operational from City limits to Skidaway, will improve with Skidaway widening, Optimize signal timing
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Skidaway to Harry Truman NB Ramp	5123007	5123	4533.9	AM	31.4	30	1.05	2.1	4.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Skidaway to Harry Truman NB Ramp	5123007	5123	4533.9	MD	33.8	30	1.13	1.5	4.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Skidaway to Harry Truman NB Ramp	5123007	5123	4533.9	PM	31.3	30	1.04	2.7	2.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Harry Truman NB Ramp to Harry Truman SB Ramp	5123008	5123	1065.4	AM	22.5	30	0.75	11.2	7.5	Signal	B		B
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Harry Truman NB Ramp to Harry Truman SB Ramp	5123008	5123	1065.4	MD	26.9	30	0.90	7.0	3.7	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Harry Truman NB Ramp to Harry Truman SB Ramp	5123008	5123	1065.4	PM	34.8	30	1.16	0.0	0.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Harry Truman SB Ramp to Waters	5123009	5123	1724.7	AM	19.5	30	0.65	21.4	13.8	Signal	C		C
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Harry Truman SB Ramp to Waters	5123009	5123	1724.7	MD	20.4	30	0.68	20.6	13.7	Signal	C		C
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - NB	Harry Truman SB Ramp to Waters	5123009	5123	1724.7	PM	20.7	30	0.69	21.1	15.3	Signal	C		C
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Waters to Harry Truman SB Ramp	5124001	5124	1724.7	AM	27.9	30	0.93	3.5	1.8	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Waters to Harry Truman SB Ramp	5124001	5124	1724.7	MD	27.8	30	0.93	3.1	0.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Waters to Harry Truman SB Ramp	5124001	5124	1724.7	PM	22.6	30	0.75	15.2	9.5	Signal	B		B
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Harry Truman SB Ramp to Harry Truman NB Ramp	5124002	5124	1065.4	AM	35.9	30	1.20	0.0	0.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Harry Truman SB Ramp to Harry Truman NB Ramp	5124002	5124	1065.4	MD	31.8	30	1.06	0.0	0.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Harry Truman SB Ramp to Harry Truman NB Ramp	5124002	5124	1065.4	PM	36.2	30	1.21	0.0	0.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Harry Truman NB Ramp to Skidaway	5124003	5124	4533.9	AM	21.5	30	0.72	46.9	35.3	Signal	D	Delays at Skidaway	Priority III - Operational between Waters and Skidaway, will improve with Skidaway widening, Optimize signal timing
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Harry Truman NB Ramp to Skidaway	5124003	5124	4533.9	MD	24.8	30	0.83	21.8	19.5	Signal	C		C
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Harry Truman NB Ramp to Skidaway	5124003	5124	4533.9	PM	19.0	30	0.63	60.9	48.0	Signal	E	Delays at Skidaway	Priority III - Operational between Waters and Skidaway, will improve with Skidaway widening, Optimize signal timing
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Skidaway to DeRenne	5124004	5124	3966.4	AM	26.6	31	0.86	18.1	12.0	Signal	B		B
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Skidaway to DeRenne	5124004	5124	3966.4	MD	30.9	35	0.88	11.1	2.5	Signal	B		B

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Skidaway to DeRenne	5124004	5124	3966.4	PM	25.3	35	0.72	36.4	16.0	Signal	D	Delays at Skidaway and SR 21	Priority II - Operational from City limits to Skidaway
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	DeRenne to Jasmine	5124005	5124	724.7	AM	17.6	35	0.50	19.2	10.7	Signal	B		B
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	DeRenne to Jasmine	5124005	5124	724.7	MD	23.5	35	0.67	9.6	3.3	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	DeRenne to Jasmine	5124005	5124	724.7	PM	23.7	35	0.68	8.5	1.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Jasmine to Nottingham	5124006	5124	5398.5	AM	37.2	35	1.06	11.1	4.3	Signal	B		B
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Jasmine to Nottingham	5124006	5124	5398.5	MD	35.4	35	1.01	1.6	0.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Jasmine to Nottingham	5124006	5124	5398.5	PM	32.9	35	0.94	9.6	0.0	Signal	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Nottingham to Norwood	5124007	5124	1777.6	AM	31.6	35	0.90	3.8	0.0	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Nottingham to Norwood	5124007	5124	1777.6	MD	32.1	35	0.92	3.1	0.0	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Nottingham to Norwood	5124007	5124	1777.6	PM	32.0	35	0.91	3.4	0.0	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Norwood to Cornus	5124008	5124	5033.7	AM	33.8	35	0.96	3.6	0.8	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Norwood to Cornus	5124008	5124	5033.7	MD	34.6	35	0.99	4.6	0.0	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Norwood to Cornus	5124008	5124	5033.7	PM	34.7	35	0.99	1.8	0.0	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Cornus to Skidaway	5124009	5124	4371.8	AM	28.1	25	1.12	1.3	0.0	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Cornus to Skidaway	5124009	5124	4371.8	MD	27.8	25	1.11	0.0	0.0	Cross Street	A		A
LA ROCHE/CAUSTON BLUFF/PARKERSBURG - SB	Cornus to Skidaway	5124009	5124	4371.8	PM	25.9	25	1.04	0.0	0.0	Cross Street	A		A
BROUGHTON - EB	MLK to Montgomery	5127001	5127	321.8	AM	13.4	25	0.54	9.9	4.3	Signal	A		A
BROUGHTON - EB	MLK to Montgomery	5127001	5127	321.8	MD	11.4	25	0.46	21.7	14.5	Signal	C		C
BROUGHTON - EB	MLK to Montgomery	5127001	5127	321.8	PM	11.5	25	0.46	15.5	7.4	Signal	B		B
BROUGHTON - EB	Montgomery to Jefferson	5127002	5127	313.8	AM	16.1	25	0.64	6.9	2.5	Signal	A		A
BROUGHTON - EB	Montgomery to Jefferson	5127002	5127	313.8	MD	17.9	25	0.72	3.2	0.0	Signal	A		A
BROUGHTON - EB	Montgomery to Jefferson	5127002	5127	313.8	PM	16.3	25	0.65	6.3	1.0	Signal	A		A
BROUGHTON - EB	Jefferson to Barnard	5127003	5127	371.1	AM	26.6	25	1.07	0.4	0.0	Signal	A		A
BROUGHTON - EB	Jefferson to Barnard	5127003	5127	371.1	MD	9.1	25	0.36	25.2	15.5	Signal	C		C
BROUGHTON - EB	Jefferson to Barnard	5127003	5127	371.1	PM	19.5	25	0.78	2.7	0.0	Signal	A		A
BROUGHTON - EB	Barnard to Whitaker	5127004	5127	363.6	AM	23.6	25	0.94	1.0	0.0	Signal	A		A
BROUGHTON - EB	Barnard to Whitaker	5127004	5127	363.6	MD	11.9	25	0.48	22.0	13.0	Signal	C		C
BROUGHTON - EB	Barnard to Whitaker	5127004	5127	363.6	PM	10.9	25	0.44	18.8	12.0	Signal	B		B
BROUGHTON - EB	Whitaker to Bull	5127005	5127	370.5	AM	25.0	25	1.00	0.4	0.0	Signal	A		A
BROUGHTON - EB	Whitaker to Bull	5127005	5127	370.5	MD	17.0	25	0.68	5.5	0.0	Signal	A		A
BROUGHTON - EB	Whitaker to Bull	5127005	5127	370.5	PM	12.8	25	0.51	18.0	6.6	Signal	B		B
BROUGHTON - EB	Bull to Drayton	5127006	5127	354.8	AM	14.5	25	0.58	13.7	10.0	Signal	B		B
BROUGHTON - EB	Bull to Drayton	5127006	5127	354.8	MD	22.2	25	0.89	1.9	0.0	Signal	A		A
BROUGHTON - EB	Bull to Drayton	5127006	5127	354.8	PM	19.0	25	0.76	4.1	0.0	Signal	A		A
BROUGHTON - EB	Drayton to Abercorn	5127007	5127	372.4	AM	23.6	25	0.95	1.2	0.0	Signal	A		A
BROUGHTON - EB	Drayton to Abercorn	5127007	5127	372.4	MD	6.7	25	0.27	26.9	16.0	Signal	C		C
BROUGHTON - EB	Drayton to Abercorn	5127007	5127	372.4	PM	13.7	25	0.55	16.5	10.4	Signal	B		B
BROUGHTON - EB	Abercorn to Lincoln	5127008	5127	368.3	AM	26.9	25	1.08	0.3	0.0	Signal	A		A
BROUGHTON - EB	Abercorn to Lincoln	5127008	5127	368.3	MD	29.7	25	1.19	0.0	0.0	Signal	A		A
BROUGHTON - EB	Abercorn to Lincoln	5127008	5127	368.3	PM	21.2	25	0.85	2.3	0.0	Signal	A		A
BROUGHTON - EB	Lincoln to Price	5127009	5127	606.8	AM	16.4	25	0.66	17.6	14.5	Cross Street	C		C
BROUGHTON - EB	Lincoln to Price	5127009	5127	606.8	MD	16.2	25	0.65	13.1	10.0	Cross Street	C		C
BROUGHTON - EB	Lincoln to Price	5127009	5127	606.8	PM	13.2	25	0.53	17.3	12.8	Cross Street	C		C
BROUGHTON - EB	Price to East Broad St	5127010	5127	637.6	AM	15.3	25	0.61	12.2	6.5	Signal	B		B
BROUGHTON - EB	Price to East Broad St	5127010	5127	637.6	MD	18.4	25	0.74	7.3	2.5	Signal	A		A
BROUGHTON - EB	Price to East Broad St	5127010	5127	637.6	PM	17.5	25	0.70	7.8	0.6	Signal	A		A
BROUGHTON - WB	East Broad St to Price	5128002	5128	637.5	AM	17.5	25	0.70	8.7	4.3	Signal	A		A
BROUGHTON - WB	East Broad St to Price	5128002	5128	637.5	MD	19.6	25	0.78	16.6	12.0	Signal	B		B
BROUGHTON - WB	East Broad St to Price	5128002	5128	637.5	PM	12.7	25	0.51	18.0	9.5	Signal	B		B
BROUGHTON - WB	Price to Lincoln	5128003	5128	606.8	AM	25.3	25	1.01	1.4	0.0	Signal	A		A
BROUGHTON - WB	Price to Lincoln	5128003	5128	606.8	MD	26.7	25	1.07	1.9	0.0	Signal	A		A
BROUGHTON - WB	Price to Lincoln	5128003	5128	606.8	PM	18.7	25	0.75	5.9	0.0	Signal	A		A
BROUGHTON - WB	Lincoln to Abercorn	5128004	5128	368.4	AM	14.8	25	0.59	10.6	6.8	Cross Street	C		C
BROUGHTON - WB	Lincoln to Abercorn	5128004	5128	368.4	MD	15.4	25	0.61	6.6	0.0	Cross Street	C		C

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
BROUGHTON - WB	Lincoln to Abercorn	5128004	5128	368.4	PM	16.0	25	0.64	9.7	9.7	Cross Street	C		C
BROUGHTON - WB	Abercorn to Drayton	5128005	5128	372.3	AM	18.4	25	0.73	7.0	3.8	Signal	A		A
BROUGHTON - WB	Abercorn to Drayton	5128005	5128	372.3	MD	4.8	25	0.19	41.3	27.0	Signal	D	Urban Core	Delays acceptable in Urban Core, Optimize signal to desired conditions
BROUGHTON - WB	Abercorn to Drayton	5128005	5128	372.3	PM	17.5	25	0.70	4.4	0.0	Signal	A		A
BROUGHTON - WB	Drayton to Bull	5128006	5128	354.8	AM	21.7	25	0.87	1.9	0.0	Signal	A		A
BROUGHTON - WB	Drayton to Bull	5128006	5128	354.8	MD	16.3	25	0.65	8.0	3.5	Signal	A		A
BROUGHTON - WB	Drayton to Bull	5128006	5128	354.8	PM	13.0	25	0.52	16.0	18.5	Signal	B		B
BROUGHTON - WB	Bull to Whitaker	5128007	5128	370.5	AM	24.5	25	0.98	0.1	0.0	Signal	A		A
BROUGHTON - WB	Bull to Whitaker	5128007	5128	370.5	MD	18.8	25	0.75	3.4	0.0	Signal	A		A
BROUGHTON - WB	Bull to Whitaker	5128007	5128	370.5	PM	12.9	25	0.52	15.7	8.2	Signal	B		B
BROUGHTON - WB	Whitaker to Barnard	5128008	5128	363.6	AM	11.5	25	0.46	14.3	8.8	Signal	B		B
BROUGHTON - WB	Whitaker to Barnard	5128008	5128	363.6	MD	19.1	25	0.77	4.7	3.0	Signal	A		A
BROUGHTON - WB	Whitaker to Barnard	5128008	5128	363.6	PM	19.7	25	0.79	4.4	5.5	Signal	A		A
BROUGHTON - WB	Barnard to Jefferson	5128009	5128	371.1	AM	16.5	25	0.66	10.2	6.0	Signal	B		B
BROUGHTON - WB	Barnard to Jefferson	5128009	5128	371.1	MD	18.6	25	0.75	5.8	3.0	Signal	A		A
BROUGHTON - WB	Barnard to Jefferson	5128009	5128	371.1	PM	15.6	25	0.62	13.3	8.5	Signal	B		B
BROUGHTON - WB	Jefferson to Montgomery	5128010	5128	313.8	AM	23.9	25	0.96	1.0	0.0	Signal	A		A
BROUGHTON - WB	Jefferson to Montgomery	5128010	5128	313.8	MD	23.2	25	0.93	1.3	0.0	Signal	A		A
BROUGHTON - WB	Jefferson to Montgomery	5128010	5128	313.8	PM	13.0	25	0.52	12.9	5.8	Signal	B		B
BROUGHTON - WB	Montgomery to MLK	5128011	5128	321.8	AM	17.1	25	0.69	5.6	2.0	Signal	A		A
BROUGHTON - WB	Montgomery to MLK	5128011	5128	321.8	MD	9.1	25	0.36	16.3	10.5	Signal	B		B
BROUGHTON - WB	Montgomery to MLK	5128011	5128	321.8	PM	11.9	25	0.48	15.3	13.8	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	I-516 WB Ramp to Milsby Lane	5129001	5129	577.2	AM	19.0	35	0.54	14.2	6.8	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	I-516 WB Ramp to Milsby Lane	5129001	5129	577.2	MD	41.3	35	1.18	0.2	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	I-516 WB Ramp to Milsby Lane	5129001	5129	577.2	PM	28.2	35	0.81	3.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Milsby Lane to Stiles	5129002	5129	4420.9	AM	38.6	35	1.10	2.2	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Milsby Lane to Stiles	5129002	5129	4420.9	MD	42.3	35	1.21	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Milsby Lane to Stiles	5129002	5129	4420.9	PM	36.3	35	1.04	4.2	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Stiles to Hopkins	5129003	5129	3300.2	AM	35.3	35	1.01	3.8	0.9	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Stiles to Hopkins	5129003	5129	3300.2	MD	42.2	35	1.21	0.6	0.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Stiles to Hopkins	5129003	5129	3300.2	PM	35.3	35	1.01	2.0	0.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Hopkins to MLK	5129004	5129	2423.5	AM	33.2	35	0.95	7.9	3.4	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Hopkins to MLK	5129004	5129	2423.5	MD	34.0	35	0.97	5.8	4.4	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Hopkins to MLK	5129004	5129	2423.5	PM	29.0	35	0.83	11.5	5.5	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	MLK to Montgomery	5129005	5129	364.4	AM	19.4	35	0.55	10.9	5.3	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	MLK to Montgomery	5129005	5129	364.4	MD	26.6	35	0.76	2.7	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	MLK to Montgomery	5129005	5129	364.4	PM	12.5	35	0.36	18.8	8.8	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Montgomery to Barnard	5129006	5129	683.1	AM	24.9	35	0.71	8.4	2.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Montgomery to Barnard	5129006	5129	683.1	MD	30.1	35	0.86	2.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Montgomery to Barnard	5129006	5129	683.1	PM	30.1	35	0.86	1.7	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Barnard to Whitaker	5129007	5129	336.6	AM	31.5	35	0.90	1.8	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Barnard to Whitaker	5129007	5129	336.6	MD	31.6	35	0.90	0.4	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Barnard to Whitaker	5129007	5129	336.6	PM	29.8	35	0.85	1.9	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Whitaker to Bull	5129008	5129	280	AM	32.0	35	0.91	1.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Whitaker to Bull	5129008	5129	280	MD	31.8	35	0.91	1.7	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Whitaker to Bull	5129008	5129	280	PM	26.3	35	0.75	2.2	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bull to Abercorn	5129009	5129	817.4	AM	22.2	35	0.63	33.9	26.5	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bull to Abercorn	5129009	5129	817.4	MD	23.8	35	0.68	22.5	15.7	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bull to Abercorn	5129009	5129	817.4	PM	18.3	35	0.52	39.2	31.3	Signal	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Abercorn to Habersham	5129010	5129	716	AM	25.7	35	0.73	8.4	4.5	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Abercorn to Habersham	5129010	5129	716	MD	27.4	35	0.78	3.2	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Abercorn to Habersham	5129010	5129	716	PM	35.4	35	1.01	0.1	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Habersham to Price	5129011	5129	342	AM	37.4	35	1.07	0.4	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Habersham to Price	5129011	5129	342	MD	32.0	35	0.91	1.2	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Habersham to Price	5129011	5129	342	PM	37.2	35	1.06	0.4	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Price to Reynolds	5129012	5129	956.1	AM	33.0	34	0.97	7.6	4.6	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Price to Reynolds	5129012	5129	956.1	MD	36.3	35	1.04	2.7	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Price to Reynolds	5129012	5129	956.1	PM	28.1	35	0.80	8.7	1.8	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Reynolds to Paulsen	5129013	5129	1358.6	AM	29.5	31	0.95	8.2	6.6	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Reynolds to Paulsen	5129013	5129	1358.6	MD	34.4	35	0.98	1.2	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Reynolds to Paulsen	5129013	5129	1358.6	PM	29.2	35	0.84	5.9	2.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Paulsen to Waters	5129014	5129	1255.7	AM	16.3	31	0.53	24.5	16.4	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Paulsen to Waters	5129014	5129	1255.7	MD	15.8	35	0.45	29.0	20.0	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Paulsen to Waters	5129014	5129	1255.7	PM	16.8	35	0.48	40.5	30.3	Signal	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Waters to Bee Rd	5129015	5129	2834.3	AM	28.7	38	0.76	25.6	14.0	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Waters to Bee Rd	5129015	5129	2834.3	MD	28.4	40	0.71	19.8	10.7	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Waters to Bee Rd	5129015	5129	2834.3	PM	29.8	40	0.75	17.2	4.5	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bee Rd to Harry Truman SB Ramp	5129016	5129	2149.2	AM	21.3	40	0.53	33.9	16.6	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bee Rd to Harry Truman SB Ramp	5129016	5129	2149.2	MD	30.9	40	0.77	27.1	18.0	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bee Rd to Harry Truman SB Ramp	5129016	5129	2149.2	PM	18.1	40	0.45	49.5	30.3	Signal	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Harry Truman SB Ramp to Harry Truman NB Ramp	5129017	5129	299.2	AM	27.9	40	0.70	1.9	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Harry Truman SB Ramp to Harry Truman NB Ramp	5129017	5129	299.2	MD	34.4	40	0.86	1.5	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Harry Truman SB Ramp to Harry Truman NB Ramp	5129017	5129	299.2	PM	27.3	40	0.68	1.8	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Harry Truman NB Ramp to Walin	5129018	5129	615.4	AM	26.2	40	0.65	6.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Harry Truman NB Ramp to Walin	5129018	5129	615.4	MD	31.0	40	0.77	2.9	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Harry Truman NB Ramp to Walin	5129018	5129	615.4	PM	26.7	40	0.67	5.1	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Walin to Skidaway	5129019	5129	1174.6	AM	33.5	40	0.84	4.9	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Walin to Skidaway	5129019	5129	1174.6	MD	10.8	40	0.27	52.5	34.3	Signal	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Walin to Skidaway	5129019	5129	1174.6	PM	11.3	40	0.28	75.3	45.5	Signal	E	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Skidaway to Commercial Driveway	5129020	5129	542.2	AM	35.3	40	0.88	2.1	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Skidaway to Commercial Driveway	5129020	5129	542.2	MD	31.0	40	0.78	2.7	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Skidaway to Commercial Driveway	5129020	5129	542.2	PM	28.7	40	0.72	3.8	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Commercial Driveway to Thunderbolt City Limit	5129021	5129	2207.9	AM	41.1	40	1.03	2.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Commercial Driveway to Thunderbolt City Limit	5129021	5129	2207.9	MD	40.7	40	1.02	1.4	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Commercial Driveway to Thunderbolt City Limit	5129021	5129	2207.9	PM	39.0	40	0.97	1.8	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Thunderbolt City Limit to Whatley	5129022	5129	609.8	AM	22.5	35	0.64	19.1	14.2	Cross Street	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Thunderbolt City Limit to Whatley	5129022	5129	609.8	MD	15.3	35	0.44	23.6	17.3	Cross Street	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Thunderbolt City Limit to Whatley	5129022	5129	609.8	PM	16.0	35	0.46	35.5	24.0	Cross Street	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Whatley to Mechanics	5129023	5129	818.2	AM	34.8	35	0.99	1.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Whatley to Mechanics	5129023	5129	818.2	MD	37.1	35	1.06	0.7	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Whatley to Mechanics	5129023	5129	818.2	PM	25.4	35	0.72	10.0	1.8	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Mechanics to River	5129024	5129	1048.4	AM	40.9	35	1.17	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Mechanics to River	5129024	5129	1048.4	MD	35.3	35	1.01	0.6	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Mechanics to River	5129024	5129	1048.4	PM	27.0	35	0.77	5.9	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	River to Gray Creek	5129025	5129	6175.2	AM	50.4	45	1.12	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	River to Gray Creek	5129025	5129	6175.2	MD	50.8	45	1.13	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	River to Gray Creek	5129025	5129	6175.2	PM	46.9	45	1.04	1.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Gray Creek to Johnny Mercer	5129026	5129	2816.7	AM	36.1	55	0.66	35.9	27.0	Cross Street	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Gray Creek to Johnny Mercer	5129026	5129	2816.7	MD	39.5	55	0.72	14.8	8.3	Cross Street	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Gray Creek to Johnny Mercer	5129026	5129	2816.7	PM	49.0	55	0.89	4.3	0.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Johnny Mercer to White Marsh	5129027	5129	3924.1	AM	29.4	55	0.53	49.8	29.0	Signal	D	Signal Operations - sufficient capacity	Coordinate signals between White Marsh and Johnny Mercer
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Johnny Mercer to White Marsh	5129027	5129	3924.1	MD	49.1	55	0.89	6.8	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Johnny Mercer to White Marsh	5129027	5129	3924.1	PM	33.6	55	0.61	34.9	18.8	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	White Marsh to US 80	5129028	5129	1952.1	AM	41.4	55	0.75	7.9	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	White Marsh to US 80	5129028	5129	1952.1	MD	52.0	55	0.95	3.3	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	White Marsh to US 80	5129028	5129	1952.1	PM	40.7	55	0.74	8.3	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	US 80 to Bryan Woods Rd	5129029	5129	4868.5	AM	49.0	48	1.03	5.6	4.8	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	US 80 to Bryan Woods Rd	5129029	5129	4868.5	MD	49.4	48	1.04	9.8	5.7	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	US 80 to Bryan Woods Rd	5129029	5129	4868.5	PM	44.1	48	0.92	10.4	7.3	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bryan Woods Rd to Suncrest	5129030	5129	3468	AM	51.2	45	1.14	0.8	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bryan Woods Rd to Suncrest	5129030	5129	3468	MD	47.2	45	1.05	1.0	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bryan Woods Rd to Suncrest	5129030	5129	3468	PM	49.1	45	1.09	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Suncrest to Quarterrman	5129031	5129	2628.2	AM	51.8	45	1.15	1.3	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Suncrest to Quarterrman	5129031	5129	2628.2	MD	47.4	45	1.05	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Suncrest to Quarterrman	5129031	5129	2628.2	PM	46.5	45	1.03	1.7	1.7	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Quarterrman to Johnny Mercer	5129032	5129	2602.3	AM	29.6	45	0.66	23.3	16.0	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Quarterrman to Johnny Mercer	5129032	5129	2602.3	MD	47.5	45	1.05	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Quarterrman to Johnny Mercer	5129032	5129	2602.3	PM	35.1	45	0.78	16.3	10.3	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Johnny Mercer to Bull River	5129033	5129	2181.4	AM	46.2	45	1.03	0.8	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Johnny Mercer to Bull River	5129033	5129	2181.4	MD	47.9	45	1.07	0.6	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Johnny Mercer to Bull River	5129033	5129	2181.4	PM	40.4	45	0.90	3.7	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bull River to Bridge	5129034	5129	26374.7	AM	58.2	55	1.06	14.3	0.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bull River to Bridge	5129034	5129	26374.7	MD	55.9	55	1.02	17.6	0.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bull River to Bridge	5129034	5129	26374.7	PM	54.1	55	0.98	7.1	0.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bridge to S. Campbell St	5129035	5129	11786.1	AM	48.6	41	1.19	0.0	1.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bridge to S. Campbell St	5129035	5129	11786.1	MD	45.7	41	1.12	1.6	3.3	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Bridge to S. Campbell St	5129035	5129	11786.1	PM	42.8	41	1.05	0.2	6.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	S. Campbell St to Jones	5129036	5129	2032	AM	40.6	35	1.16	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	S. Campbell St to Jones	5129036	5129	2032	MD	39.0	35	1.11	0.6	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	S. Campbell St to Jones	5129036	5129	2032	PM	28.7	35	0.82	12.6	5.3	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Jones to 14th St	5129037	5129	7219.9	AM	28.4	34	0.83	29.3	9.5	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Jones to 14th St	5129037	5129	7219.9	MD	31.9	34	0.93	10.5	0.0	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	Jones to 14th St	5129037	5129	7219.9	PM	29.5	34	0.86	24.7	4.0	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	14th St to End of Route	5129038	5129	1092.2	AM	23.3	30	0.78	7.4	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	14th St to End of Route	5129038	5129	1092.2	MD	28.7	30	0.96	1.1	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - EB	14th St to End of Route	5129038	5129	1092.2	PM	21.0	30	0.70	10.2	0.0	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	End of Route to 14th St	5130002	5130	1092.2	AM	19.5	30	0.65	24.9	18.5	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	End of Route to 14th St	5130002	5130	1092.2	MD	18.4	30	0.61	14.9	3.5	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	End of Route to 14th St	5130002	5130	1092.2	PM	23.5	30	0.78	9.9	4.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	14th St to Jones	5130003	5130	7219.9	AM	33.0	34	0.96	5.3	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	14th St to Jones	5130003	5130	7219.9	MD	31.8	34	0.93	10.8	0.0	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	14th St to Jones	5130003	5130	7219.9	PM	30.6	34	0.90	21.5	14.0	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Jones to S. Campbell St	5130004	5130	2032	AM	30.3	35	0.86	9.1	5.7	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Jones to S. Campbell St	5130004	5130	2032	MD	43.7	35	1.25	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Jones to S. Campbell St	5130004	5130	2032	PM	29.4	35	0.84	10.0	7.5	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	S. Campbell St to Bridge	5130005	5130	11786.1	AM	46.5	41	1.14	0.0	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	S. Campbell St to Bridge	5130005	5130	11786.1	MD	45.9	41	1.12	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	S. Campbell St to Bridge	5130005	5130	11786.1	PM	46.3	41	1.13	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bridge to Bull River	5130006	5130	26374.7	AM	56.9	55	1.03	6.5	0.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bridge to Bull River	5130006	5130	26374.7	MD	58.9	55	1.07	4.3	0.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bridge to Bull River	5130006	5130	26374.7	PM	55.3	55	1.01	9.2	0.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bull River to Johnny Mercer	5130007	5130	2181.4	AM	47.0	45	1.05	1.3	0.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bull River to Johnny Mercer	5130007	5130	2181.4	MD	52.3	45	1.16	0.0	0.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bull River to Johnny Mercer	5130007	5130	2181.4	PM	34.5	45	0.77	9.9	3.0	Cross Street	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Johnny Mercer to Quarterrman	5130008	5130	2602.3	AM	38.4	45	0.85	13.7	11.0	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Johnny Mercer to Quarterrman	5130008	5130	2602.3	MD	38.1	45	0.85	8.6	6.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Johnny Mercer to Quarterrman	5130008	5130	2602.3	PM	33.7	45	0.75	14.2	6.0	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Quarterrman to Suncrest	5130009	5130	2628.2	AM	53.3	45	1.18	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Quarterrman to Suncrest	5130009	5130	2628.2	MD	50.3	45	1.12	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Quarterrman to Suncrest	5130009	5130	2628.2	PM	47.1	45	1.05	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Suncrest to Bryan Woods Rd	5130010	5130	3468	AM	37.7	45	0.84	12.9	8.3	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Suncrest to Bryan Woods Rd	5130010	5130	3468	MD	53.0	45	1.18	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Suncrest to Bryan Woods Rd	5130010	5130	3468	PM	43.5	45	0.97	3.1	1.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bryan Woods Rd to US 80	5130011	5130	4868.5	AM	48.4	48	1.01	3.9	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bryan Woods Rd to US 80	5130011	5130	4868.5	MD	52.2	48	1.09	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bryan Woods Rd to US 80	5130011	5130	4868.5	PM	49.5	48	1.04	0.8	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	US 80 to White Marsh	5130012	5130	1952.1	AM	36.0	55	0.65	12.6	0.0	Cross Street	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	US 80 to White Marsh	5130012	5130	1952.1	MD	31.7	55	0.58	20.1	7.3	Cross Street	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	US 80 to White Marsh	5130012	5130	1952.1	PM	27.8	55	0.51	23.4	6.0	Cross Street	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	White Marsh to Johnny Mercer	5130013	5130	3924.1	AM	36.7	55	0.67	36.5	14.7	Signal	D	Signal Operations - sufficient capacity	Coordinate signals between White Marsh and Johnny Mercer
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	White Marsh to Johnny Mercer	5130013	5130	3924.1	MD	36.3	55	0.66	24.6	13.0	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	White Marsh to Johnny Mercer	5130013	5130	3924.1	PM	49.2	55	0.90	5.7	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Johnny Mercer to Gray Creek	5130014	5130	2816.7	AM	52.4	55	0.95	2.8	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Johnny Mercer to Gray Creek	5130014	5130	2816.7	MD	51.0	55	0.93	2.9	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Johnny Mercer to Gray Creek	5130014	5130	2816.7	PM	50.9	55	0.93	3.4	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Gray Creek to River	5130015	5130	6175.2	AM	49.9	45	1.11	0.0	0.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Gray Creek to River	5130015	5130	6175.2	MD	56.6	45	1.26	0.0	0.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Gray Creek to River	5130015	5130	6175.2	PM	49.7	45	1.10	0.0	0.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	River to Mechanics	5130016	5130	1048.4	AM	22.6	35	0.65	17.2	9.7	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	River to Mechanics	5130016	5130	1048.4	MD	45.6	35	1.30	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	River to Mechanics	5130016	5130	1048.4	PM	42.0	35	1.20	0.0	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Mechanics to Whatley	5130017	5130	818.2	AM	33.2	35	0.95	1.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Mechanics to Whatley	5130017	5130	818.2	MD	40.4	35	1.15	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Mechanics to Whatley	5130017	5130	818.2	PM	36.8	35	1.05	0.4	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Whatley to Thunderbolt City Limit	5130018	5130	609.9	AM	35.1	35	1.00	0.4	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Whatley to Thunderbolt City Limit	5130018	5130	609.9	MD	40.7	35	1.16	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Whatley to Thunderbolt City Limit	5130018	5130	609.9	PM	37.2	35	1.06	0.8	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Thunderbolt City Limit to Commercial Driveway	5130019	5130	2207.9	AM	18.7	40	0.47	42.8	19.0	Cross Street	D	Delay at Victory, sufficient capacity for all mvmt	Coordinate signal with Skidaway
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Thunderbolt City Limit to Commercial Driveway	5130019	5130	2207.9	MD	33.1	40	0.83	9.2	7.0	Cross Street	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Thunderbolt City Limit to Commercial Driveway	5130019	5130	2207.9	PM	30.9	40	0.77	14.4	1.0	Cross Street	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Commercial Driveway to Skidaway	5130020	5130	542.1	AM	5.4	40	0.13	61.3	42.7	Signal	E	Delay at Skidaway, sufficient capacity	Dedicated right turn bay both sides, coordinating Victory timing will improve int ops
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Commercial Driveway to Skidaway	5130020	5130	542.1	MD	11.5	40	0.29	34.7	22.5	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Commercial Driveway to Skidaway	5130020	5130	542.1	PM	16.1	40	0.40	20.4	7.5	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Skidaway to Walin	5130021	5130	1174.6	AM	26.3	40	0.66	11.5	2.3	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Skidaway to Walin	5130021	5130	1174.6	MD	20.5	40	0.51	20.6	6.5	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Skidaway to Walin	5130021	5130	1174.6	PM	8.4	40	0.21	73.1	55.3	Signal	E	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Walin to Harry Truman NB Ramp	5130022	5130	615.4	AM	27.9	40	0.70	4.2	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Walin to Harry Truman NB Ramp	5130022	5130	615.4	MD	35.8	40	0.90	1.3	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Walin to Harry Truman NB Ramp	5130022	5130	615.4	PM	32.7	40	0.82	2.1	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Harry Truman NB Ramp to Harry Truman SB Ramp	5130023	5130	299.2	AM	32.2	40	0.81	1.3	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Harry Truman NB Ramp to Harry Truman SB Ramp	5130023	5130	299.2	MD	44.9	40	1.12	0.3	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Harry Truman NB Ramp to Harry Truman SB Ramp	5130023	5130	299.2	PM	37.3	40	0.93	0.6	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Harry Truman SB Ramp to Bee Rd	5130024	5130	2149.2	AM	24.1	40	0.60	29.3	15.0	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Harry Truman SB Ramp to Bee Rd	5130024	5130	2149.2	MD	45.0	40	1.12	0.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Harry Truman SB Ramp to Bee Rd	5130024	5130	2149.2	PM	40.5	40	1.01	1.2	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bee Rd to Waters	5130025	5130	2834.3	AM	32.4	40	0.81	11.2	0.0	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bee Rd to Waters	5130025	5130	2834.3	MD	33.7	40	0.84	8.8	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bee Rd to Waters	5130025	5130	2834.3	PM	24.1	40	0.60	42.0	29.8	Signal	D	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Waters to Paulsen	5130026	5130	1255.7	AM	27.5	35	0.79	9.0	5.7	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Waters to Paulsen	5130026	5130	1255.7	MD	29.8	35	0.85	8.6	4.5	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Waters to Paulsen	5130026	5130	1255.7	PM	20.7	35	0.59	16.6	2.3	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Paulsen to Reynolds	5130027	5130	1358.6	AM	32.6	35	0.93	2.0	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Paulsen to Reynolds	5130027	5130	1358.6	MD	28.3	35	0.81	11.7	7.5	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Paulsen to Reynolds	5130027	5130	1358.6	PM	21.4	35	0.61	18.2	6.7	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Reynolds to Price	5130028	5130	956.2	AM	25.8	35	0.74	9.4	4.3	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Reynolds to Price	5130028	5130	956.2	MD	28.3	35	0.81	6.4	4.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Reynolds to Price	5130028	5130	956.2	PM	31.0	35	0.89	2.7	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Price to Habersham	5130029	5130	341.9	AM	21.1	35	0.60	7.9	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Price to Habersham	5130029	5130	341.9	MD	27.6	35	0.79	1.7	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Price to Habersham	5130029	5130	341.9	PM	18.9	35	0.54	11.0	7.0	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Habersham to Abercorn	5130030	5130	716	AM	29.4	35	0.84	2.4	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Habersham to Abercorn	5130030	5130	716	MD	19.0	35	0.54	33.3	26.5	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Habersham to Abercorn	5130030	5130	716	PM	7.1	35	0.20	55.3	36.7	Signal	E	Constrained Corridor - Victory/Canopy	Constrained Corridor - Optimizing Signal Operations will improve Victory and delays on cross streets
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Abercorn to Bull	5130031	5130	817.4	AM	18.8	35	0.54	22.6	9.7	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Abercorn to Bull	5130031	5130	817.4	MD	27.9	35	0.80	3.6	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Abercorn to Bull	5130031	5130	817.4	PM	25.6	35	0.73	6.1	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bull to Whitaker	5130032	5130	280	AM	25.1	35	0.72	1.5	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bull to Whitaker	5130032	5130	280	MD	23.7	35	0.68	2.9	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Bull to Whitaker	5130032	5130	280	PM	26.9	35	0.77	1.4	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Whitaker to Barnard	5130033	5130	336.6	AM	27.2	35	0.78	2.3	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Whitaker to Barnard	5130033	5130	336.6	MD	30.7	35	0.88	0.8	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Whitaker to Barnard	5130033	5130	336.6	PM	27.2	35	0.78	1.7	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Barnard to Montgomery	5130034	5130	683.1	AM	19.1	35	0.55	11.8	0.0	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Barnard to Montgomery	5130034	5130	683.1	MD	22.0	35	0.63	9.5	4.3	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Barnard to Montgomery	5130034	5130	683.1	PM	25.4	35	0.72	5.6	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Montgomery to MLK	5130035	5130	364.4	AM	17.0	35	0.48	13.7	7.3	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Montgomery to MLK	5130035	5130	364.4	MD	22.4	35	0.64	6.9	2.3	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Montgomery to MLK	5130035	5130	364.4	PM	12.1	35	0.34	21.0	11.3	Signal	C		C
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	MLK to Hopkins	5130036	5130	2423.5	AM	31.6	35	0.90	6.0	0.9	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	MLK to Hopkins	5130036	5130	2423.5	MD	33.4	35	0.95	5.6	2.8	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	MLK to Hopkins	5130036	5130	2423.5	PM	32.9	35	0.94	4.5	2.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Hopkins to Stiles	5130037	5130	3300.2	AM	21.5	35	0.61	53.9	35.0	Signal	D	Delays at intersection with Ogeechee	Study intersection for possible signalization
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Hopkins to Stiles	5130037	5130	3300.2	MD	30.7	35	0.88	13.2	4.0	Signal	B		B
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Hopkins to Stiles	5130037	5130	3300.2	PM	21.6	35	0.62	58.3	34.5	Signal	E	Delays at intersection with Ogeechee	Study intersection for possible signalization
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Stiles to Milsby Lane	5130038	5130	4420.9	AM	38.7	35	1.10	7.2	5.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Stiles to Milsby Lane	5130038	5130	4420.9	MD	40.7	35	1.16	0.0	5.0	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Stiles to Milsby Lane	5130038	5130	4420.9	PM	33.1	35	0.95	9.1	11.5	Cross Street	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Milsby Lane to I-516 WB Ramp	5130039	5130	577.2	AM	38.0	35	1.09	0.5	0.0	Signal	A		A
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Milsby Lane to I-516 WB Ramp	5130039	5130	577.2	MD	35.8	35	1.02	0.6	0.0	Signal	A		A

Route and Direction	Roadway Segement	Segment ID	Route ID	Distance (Feet)	Peak Hour	Average Segment Speed	Average Weighted Speed Limit	Congestion Index	Average Segment Delay (sec)	Average Stop Delay (sec)	Control	LOS	2004 Observations	2004 Recommendations
VICTORY/SAFOLD/ISLAND EXPRESSWAY/US 80 - WB	Milsby Lane to I-516 WB Ramp	5130039	5130	577.2	PM	29.8	35	0.85	2.0	0.0	Signal	A		A

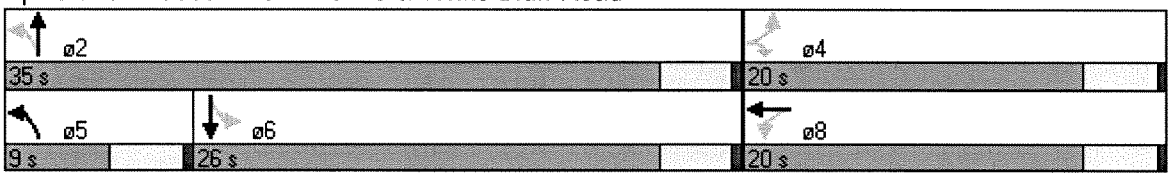
APPENDIX B

Lane Group	EBL	EBR	NBL	NBT	SBT	ø8
Lane Configurations						
Volume (vph)	31	21	63	1368	719	
Turn Type	custom	custom	pm+pt			
Protected Phases			5	2	6	8
Permitted Phases	4	4	2	2	6	
Detector Phases	4	4	5	2	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	9.0	35.0	26.0	20.0
Total Split (%)	36.4%	36.4%	16.4%	63.6%	47.3%	36%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	Min	Min	None
Act Effct Green (s)	8.6	8.6	51.8	52.6	44.9	
Actuated g/C Ratio	0.12	0.12	0.74	0.80	0.68	
v/c Ratio	0.23	0.13	0.21	0.55	0.40	
Control Delay	17.3	8.1	4.1	4.4	7.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	17.3	8.1	4.1	4.4	7.1	
LOS	B	A	A	A	A	
Approach Delay				4.4	7.1	
Approach LOS				A	A	

Intersection Summary

Cycle Length: 55
Actuated Cycle Length: 66
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 5.6 Intersection LOS: A
Intersection Capacity Utilization 54.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Wilshire & White Bluff Road

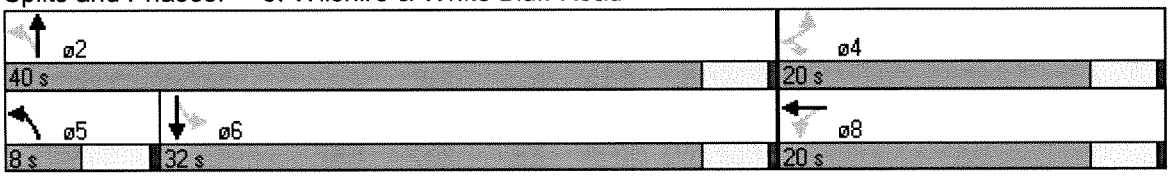


Lane Group	EBL	EBR	NBL	NBT	SBT	ø8
Lane Configurations						
Volume (vph)	31	52	55	804	1189	
Turn Type	custom	custom	pm+pt			
Protected Phases			5	2	6	8
Permitted Phases	4	4	2	2	6	
Detector Phases	4	4	5	2	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	8.0	40.0	32.0	20.0
Total Split (%)	33.3%	33.3%	13.3%	66.7%	53.3%	33%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	Min	Min	None
Act Effct Green (s)	8.3	8.3	53.6	54.8	48.6	
Actuated g/C Ratio	0.12	0.12	0.76	0.82	0.72	
v/c Ratio	0.24	0.28	0.22	0.30	0.62	
Control Delay	20.2	7.2	4.3	2.7	9.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	20.2	7.2	4.3	2.7	9.2	
LOS	C	A	A	A	A	
Approach Delay				2.8	9.2	
Approach LOS				A	A	

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 67.1
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 7.1 — Intersection LOS: A
Intersection Capacity Utilization 53.6% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Wilshire & White Bluff Road

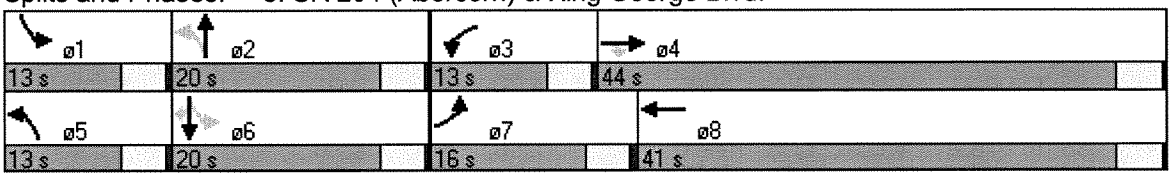


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	105	1380	63	258	665	176	180	69	774	342	122	93
Turn Type	Prot		Perm	Prot		Free	pm+pt		Free	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free	2	2	Free	6	6	6
Detector Phases	7	4	4	3	8		5	2		1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0		8.0	20.0		8.0	20.0	20.0
Total Split (s)	16.0	44.0	44.0	13.0	41.0	0.0	13.0	20.0	0.0	13.0	20.0	20.0
Total Split (%)	17.8%	48.9%	48.9%	14.4%	45.6%	0.0%	14.4%	22.2%	0.0%	14.4%	22.2%	22.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	Min		None	Min	Min
Act Effct Green (s)	10.0	39.4	39.4	9.0	40.8	85.3	20.7	11.8	85.3	20.9	11.9	11.9
Actuated g/C Ratio	0.11	0.46	0.46	0.11	0.48	1.00	0.24	0.14	1.00	0.25	0.14	0.14
v/c Ratio	0.55	0.94	0.11	0.85	0.44	0.14	0.64	0.31	0.68	1.05	0.58	0.35
Control Delay	43.1	34.0	4.1	60.5	17.5	0.2	34.5	34.8	2.4	91.4	39.0	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	34.0	4.1	60.5	17.5	0.2	34.5	34.8	2.4	91.4	39.0	9.0
LOS	D	C	A	E	B	A	C	C	A	F	D	A
Approach Delay		33.1			25.0			9.2			65.1	
Approach LOS		C			C			A			E	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 85.3
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 28.7 — Intersection LOS: C
Intersection Capacity Utilization 81.4% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: SR 204 (Abercorn) & King George Blvd.

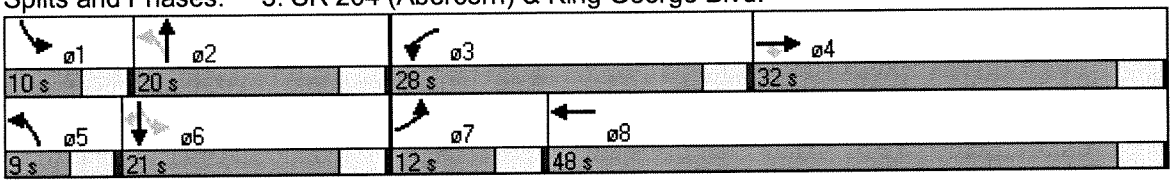


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	142	1070	182	774	1422	320	142	134	322	246	254	100
Turn Type	Prot		Perm	Prot		Free	pm+pt		Free	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free	2	2	Free	6	6	6
Detector Phases	7	4	4	3	8		5	2		1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0		8.0	20.0		8.0	20.0	20.0
Total Split (s)	12.0	32.0	32.0	28.0	48.0	0.0	9.0	20.0	0.0	10.0	21.0	21.0
Total Split (%)	13.3%	35.6%	35.6%	31.1%	53.3%	0.0%	10.0%	22.2%	0.0%	11.1%	23.3%	23.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	Min		None	Min	Min
Act Effct Green (s)	8.0	28.0	28.0	24.0	44.0	89.0	20.0	15.0	89.0	22.0	16.0	16.0
Actuated g/C Ratio	0.09	0.31	0.31	0.27	0.49	1.00	0.22	0.17	1.00	0.25	0.18	0.18
v/c Ratio	0.93	0.98	0.37	0.98	0.92	0.24	0.91	0.52	0.25	1.00	0.84	0.34
Control Delay	98.5	54.3	7.2	59.8	31.7	0.4	78.1	39.3	0.4	87.9	53.0	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.5	54.3	7.2	59.8	31.7	0.4	78.1	39.3	0.4	87.9	53.0	8.4
LOS	F	D	A	E	C	A	E	D	A	F	D	A
Approach Delay		51.3			36.5			27.4			58.7	
Approach LOS		D			D			C			E	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 89
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 41.8 — Intersection LOS: D
Intersection Capacity Utilization 86.2% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: SR 204 (Abercorn) & King George Blvd.

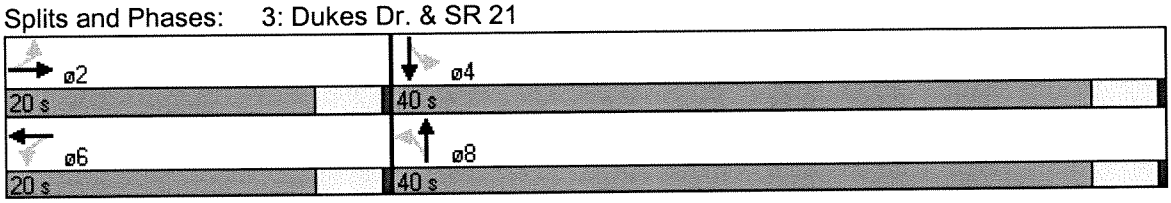


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	21	11	32	0	21	1285	60	1388
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases		2		6		8		4
Permitted Phases	2	2	6	6	8		4	
Detector Phases	2	2	6	6	8	8	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	40.0	40.0	40.0	40.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Min	Min	Min	Min	None	None	None	None
Act Effct Green (s)		8.7		8.7	22.8	22.8	22.8	22.8
Actuated g/C Ratio		0.22		0.22	0.57	0.57	0.57	0.57
v/c Ratio		0.21		0.40	0.16	0.53	0.53	0.50
Control Delay		11.2		14.0	6.3	5.5	17.5	5.5
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		11.2		14.0	6.3	5.5	17.5	5.5
LOS		B		B	A	A	B	A
Approach Delay		11.2		14.0		5.6		6.0
Approach LOS		B		B		A		A

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 40.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 6.3 Intersection LOS: A
Intersection Capacity Utilization 47.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Dukes Dr. & SR 21

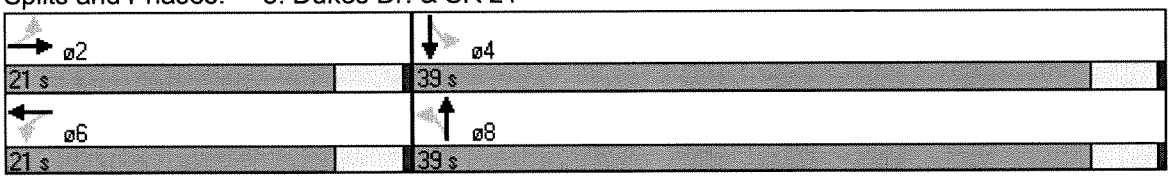


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	49	8	82	0	40	1611	30	1414
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases		2		6		8		4
Permitted Phases	2	2	6	6	8		4	
Detector Phases	2	2	6	6	8	8	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	21.0	21.0	21.0	21.0	39.0	39.0	39.0	39.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	65.0%	65.0%	65.0%	65.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Min	Min	Min	Min	None	None	None	None
Act Effct Green (s)		12.5		12.5	26.7	26.7	26.7	26.7
Actuated g/C Ratio		0.26		0.26	0.56	0.56	0.56	0.56
v/c Ratio		0.30		0.68	0.41	0.64	0.31	0.57
Control Delay		14.3		21.0	16.4	8.1	12.8	7.5
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		14.3		21.0	16.4	8.1	12.8	7.5
LOS		B		C	B	A	B	A
Approach Delay		14.3		21.0		8.3		7.6
Approach LOS		B		C		A		A

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 47.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 9.1 Intersection LOS: A
Intersection Capacity Utilization 53.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Dukes Dr. & SR 21

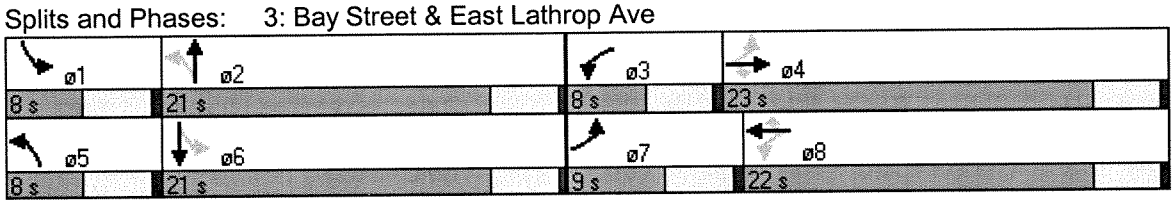


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	68	813	97	77	553	71	57	22	66	55
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		pm+pt	
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases	4		4	8		8	2	2	6	6
Detector Phases	7	4	4	3	8	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	23.0	23.0	8.0	22.0	22.0	8.0	21.0	8.0	21.0
Total Split (%)	15.0%	38.3%	38.3%	13.3%	36.7%	36.7%	13.3%	35.0%	13.3%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	17.2	15.3	15.3	16.2	14.8	14.8	9.9	8.3	9.9	8.3
Actuated g/C Ratio	0.39	0.38	0.38	0.37	0.37	0.37	0.23	0.20	0.23	0.20
v/c Ratio	0.24	0.63	0.17	0.36	0.46	0.13	0.23	0.17	0.21	0.36
Control Delay	8.8	13.5	3.8	11.0	12.6	4.3	14.1	12.0	13.8	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	13.5	3.8	11.0	12.6	4.3	14.1	12.0	13.8	11.2
LOS	A	B	A	B	B	A	B	B	B	B
Approach Delay		12.1			11.5			13.1		12.1
Approach LOS		B			B			B		B

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 40.5
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 11.9 — Intersection LOS: B
Intersection Capacity Utilization 47.1% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Bay Street & East Lathrop Ave

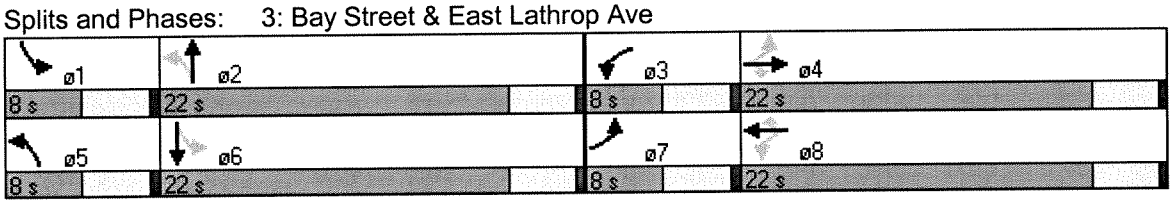


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	64	610	30	11	718	78	147	77	102	29
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		pm+pt	
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases	4		4	8		8	2	2	6	6
Detector Phases	7	4	4	3	8	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	22.0	22.0	8.0	22.0	22.0	8.0	22.0	8.0	22.0
Total Split (%)	13.3%	36.7%	36.7%	13.3%	36.7%	36.7%	13.3%	36.7%	13.3%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	18.1	17.7	17.7	16.7	15.0	15.0	12.6	10.8	11.5	8.8
Actuated g/C Ratio	0.39	0.41	0.41	0.34	0.35	0.35	0.28	0.25	0.25	0.21
v/c Ratio	0.28	0.49	0.05	0.05	0.65	0.14	0.40	0.43	0.40	0.28
Control Delay	10.5	11.3	5.1	9.4	15.0	4.4	15.4	9.6	16.0	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.5	11.3	5.1	9.4	15.0	4.4	15.4	9.6	16.0	8.9
LOS	B	B	A	A	B	A	B	A	B	A
Approach Delay		11.0			13.9			12.0		12.7
Approach LOS		B			B			B		B

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 42.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 12.4 — Intersection LOS: B
Intersection Capacity Utilization 51.6% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Bay Street & East Lathrop Ave

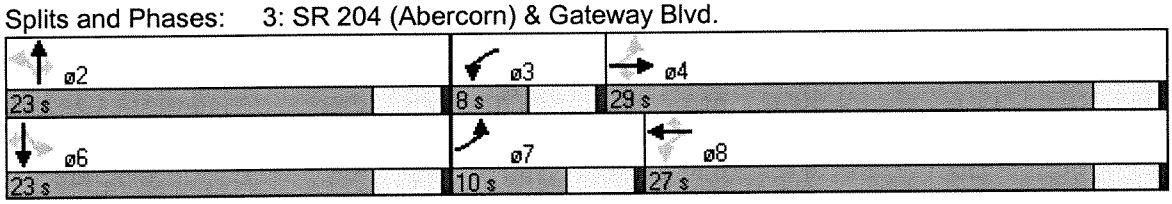


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	958	124	41	531	75	124	43	69	87	30	281
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phases	7	4	4	3	8	8	2	2	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	29.0	29.0	8.0	27.0	27.0	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (%)	16.7%	48.3%	48.3%	13.3%	45.0%	45.0%	38.3%	38.3%	38.3%	38.3%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	31.0	25.0	25.0	27.0	23.0	23.0		19.0	19.0		19.0	19.0
Actuated g/C Ratio	0.52	0.42	0.42	0.45	0.38	0.38		0.32	0.32		0.32	0.32
v/c Ratio	0.34	0.76	0.18	0.23	0.43	0.12		0.52	0.14		0.34	0.42
Control Delay	8.9	19.2	3.2	9.0	14.8	4.0		22.2	5.1		18.6	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	8.9	19.2	3.2	9.0	14.8	4.0		22.2	5.1		18.6	4.6
LOS	A	B	A	A	B	A		C	A		B	A
Approach Delay		16.6			13.2			17.7			9.0	
Approach LOS		B			B			B			A	

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 14.7 — Intersection LOS: B
Intersection Capacity Utilization 55.6% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: SR 204 (Abercorn) & Gateway Blvd.

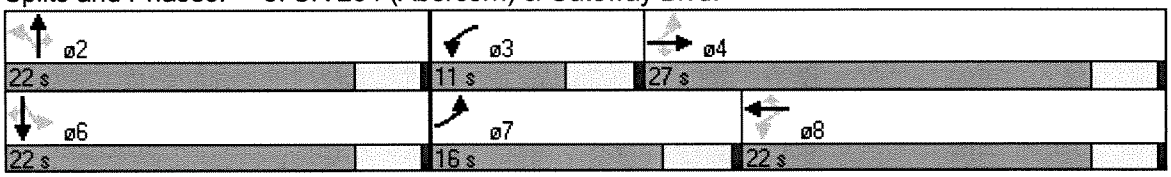


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	377	918	266	216	964	169	238	65	94	69	49	153
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phases	7	4	4	3	8	8	2	2	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	16.0	27.0	27.0	11.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (%)	26.7%	45.0%	45.0%	18.3%	36.7%	36.7%	36.7%	36.7%	36.7%	36.7%	36.7%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	34.0	23.0	23.0	25.0	18.0	18.0		18.0	18.0		18.0	18.0
Actuated g/C Ratio	0.57	0.38	0.38	0.42	0.30	0.30		0.30	0.30		0.30	0.30
v/c Ratio	0.97	0.74	0.37	0.71	0.98	0.38		0.94	0.20		0.45	0.28
Control Delay	51.9	20.1	3.4	24.2	45.9	4.6		58.0	5.0		22.9	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	51.9	20.1	3.4	24.2	45.9	4.6		58.0	5.0		22.9	4.6
LOS	D	C	A	C	D	A		E	A		C	A
Approach Delay		25.8			35.9			45.7			12.8	
Approach LOS		C			D			D			B	

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 30.9 — Intersection LOS: C
Intersection Capacity Utilization 80.8% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: SR 204 (Abercorn) & Gateway Blvd.

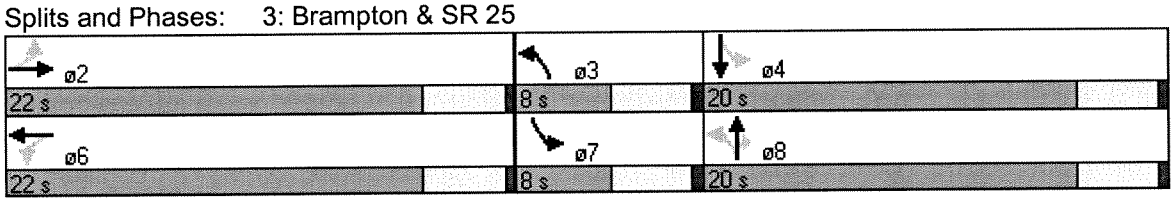


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Volume (vph)	20	46	66	33	39	285	98	25	214
Turn Type	Perm		Perm		pm+pt		Perm	pm+pt	
Protected Phases		2		6	3	8		7	4
Permitted Phases	2	2	6	6	8		8	4	
Detector Phases	2	2	6	6	3	8	8	7	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	22.0	22.0	22.0	22.0	8.0	20.0	20.0	8.0	20.0
Total Split (%)	44.0%	44.0%	44.0%	44.0%	16.0%	40.0%	40.0%	16.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	None	None	None	None	None
Act Effct Green (s)	12.1	12.1		12.1	10.9	11.0	11.0	10.1	9.4
Actuated g/C Ratio	0.42	0.42		0.42	0.33	0.36	0.36	0.29	0.31
v/c Ratio	0.04	0.11		0.20	0.11	0.48	0.17	0.08	0.24
Control Delay	10.4	7.6		10.1	6.2	9.1	2.9	7.0	7.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	7.6		10.1	6.2	9.1	2.9	7.0	7.7
LOS	B	A		B	A	A	A	A	A
Approach Delay		8.2		10.1		7.4			7.7
Approach LOS		A		B		A			A

Intersection Summary

Cycle Length: 50
Actuated Cycle Length: 28.5
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 7.9 — Intersection LOS: A
Intersection Capacity Utilization 40.9% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Brampton & SR 25

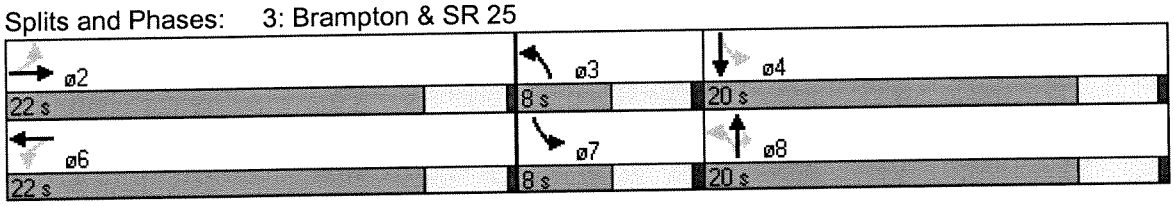


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Volume (vph)	23	16	170	83	52	315	33	8	341
Turn Type	Perm		Perm		pm+pt		Perm	pm+pt	
Protected Phases		2		6	3	8		7	4
Permitted Phases	2	2	6	6	8		8	4	
Detector Phases	2	2	6	6	3	8	8	7	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	22.0	22.0	22.0	22.0	8.0	20.0	20.0	8.0	20.0
Total Split (%)	44.0%	44.0%	44.0%	44.0%	16.0%	40.0%	40.0%	16.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	None	None	None	None	None
Act Effct Green (s)	15.4	15.4		15.4	15.3	14.6	14.6	13.9	11.9
Actuated g/C Ratio	0.39	0.39		0.39	0.35	0.37	0.37	0.30	0.30
v/c Ratio	0.07	0.10		0.76	0.19	0.58	0.07	0.04	0.49
Control Delay	10.6	6.0		20.4	9.0	14.2	4.7	9.0	13.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.6	6.0		20.4	9.0	14.2	4.7	9.0	13.1
LOS	B	A		C	A	B	A	A	B
Approach Delay		7.3		20.4		12.8			13.0
Approach LOS		A		C		B			B

Intersection Summary

Cycle Length: 50
Actuated Cycle Length: 39.9
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 14.6 — Intersection LOS: B
Intersection Capacity Utilization 53.6% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Brampton & SR 25

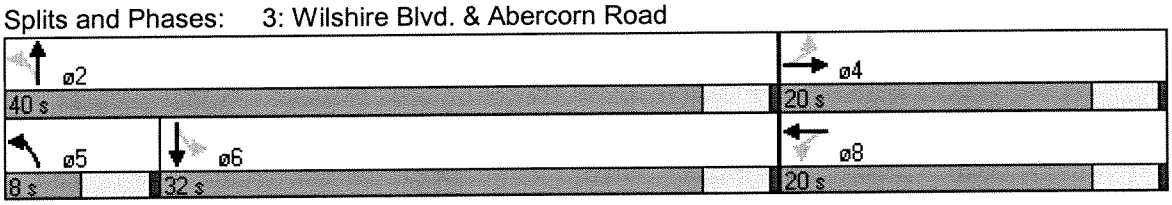


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	61	16	51	10	58	1968	17	893
Turn Type	Perm		Perm		pm+pt		Perm	
Protected Phases		4		8	5	2		6
Permitted Phases	4		8		2	2	6	6
Detector Phases	4	4	8	8	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	8.0	40.0	32.0	32.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	13.3%	66.7%	53.3%	53.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?					Yes		Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	Min
Act Effct Green (s)		8.2		8.3	36.9	37.6	32.7	32.7
Actuated g/C Ratio		0.15		0.16	0.67	0.73	0.63	0.63
v/c Ratio		0.36		0.35	0.21	0.57	0.21	0.31
Control Delay		12.7		17.7	4.7	4.9	11.4	6.2
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		12.7		17.7	4.7	4.9	11.4	6.2
LOS		B		B	A	A	B	A
Approach Delay		12.7		17.7		4.9		6.4
Approach LOS		B		B		A		A

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 51.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 6.2 — Intersection LOS: A
Intersection Capacity Utilization 61.6% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Wilshire Blvd. & Abercorn Road

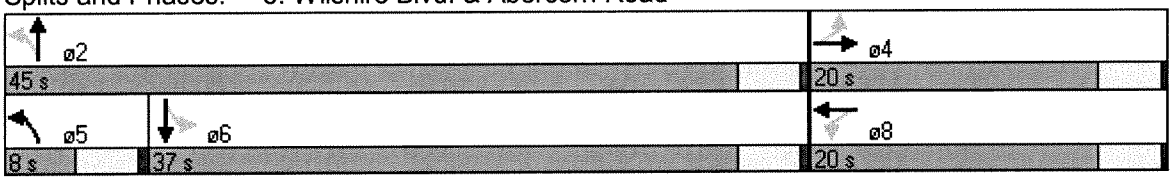


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	26	22	93	48	136	1424	91	1970
Turn Type	Perm		Perm		pm+pt		Perm	
Protected Phases		4		8	5	2		6
Permitted Phases	4		8		2	2	6	6
Detector Phases	4	4	8	8	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	8.0	45.0	37.0	37.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	12.3%	69.2%	56.9%	56.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?					Yes		Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	Min
Act Effct Green (s)		9.0		9.0	41.4	41.4	35.0	35.0
Actuated g/C Ratio		0.15		0.15	0.69	0.71	0.60	0.60
v/c Ratio		0.24		0.45	0.61	0.42	0.62	0.71
Control Delay		14.6		20.2	17.6	4.2	30.8	10.7
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		14.6		20.2	17.6	4.2	30.8	10.7
LOS		B		C	B	A	C	B
Approach Delay		14.6		20.2		5.4		11.7
Approach LOS		B		C		A		B

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 58.4
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 9.7 — Intersection LOS: A
Intersection Capacity Utilization 68.9% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 3: Wilshire Blvd. & Abercorn Road

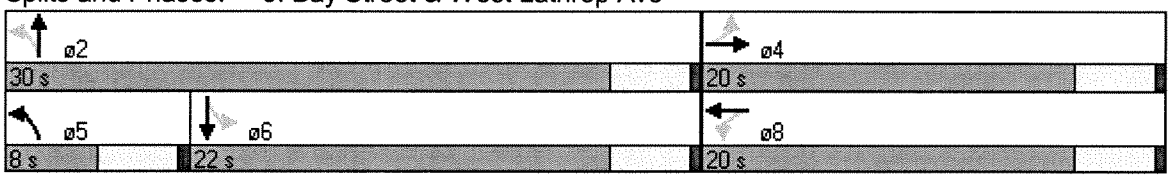


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	104	314	13	193	48	12	16	68
Turn Type	Perm		Perm		pm+pt		Perm	
Protected Phases		4		8	5	2		6
Permitted Phases	4		8		2	2	6	6
Detector Phases	4	4	8	8	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	8.0	30.0	22.0	22.0
Total Split (%)	40.0%	40.0%	40.0%	40.0%	16.0%	60.0%	44.0%	44.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?					Yes		Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	Min
Act Effct Green (s)	8.8	8.8	8.8	8.8		6.4		6.4
Actuated g/C Ratio	0.38	0.38	0.38	0.38		0.27		0.27
v/c Ratio	0.31	0.33	0.09	0.23		0.10		0.24
Control Delay	6.3	5.4	5.0	4.0		6.5		4.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	6.3	5.4	5.0	4.0		6.5		4.1
LOS	A	A	A	A		A		A
Approach Delay		5.6		4.1		6.5		4.1
Approach LOS		A		A		A		A

Intersection Summary

Cycle Length: 50
Actuated Cycle Length: 23.4
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.33
Intersection Signal Delay: 5.0 Intersection LOS: A
Intersection Capacity Utilization 34.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Bay Street & West Lathrop Ave

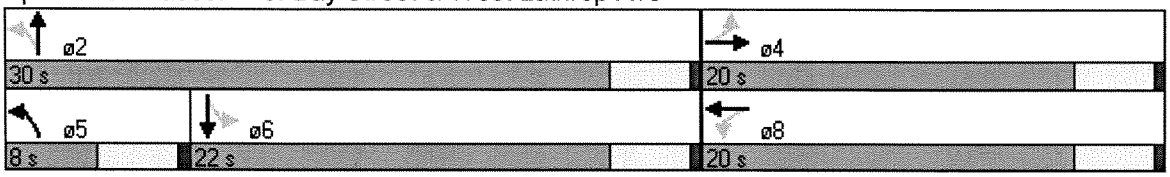


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	56	354	21	265	65	6	41	259
Turn Type	Perm		Perm		pm+pt		Perm	
Protected Phases		4		8	5	2		6
Permitted Phases	4		8		2	2	6	6
Detector Phases	4	4	8	8	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	8.0	30.0	22.0	22.0
Total Split (%)	40.0%	40.0%	40.0%	40.0%	16.0%	60.0%	44.0%	44.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?					Yes		Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	Min
Act Effct Green (s)	8.5	8.5	8.5	8.5		11.4		11.4
Actuated g/C Ratio	0.33	0.33	0.33	0.33		0.48		0.48
v/c Ratio	0.24	0.36	0.12	0.34		0.08		0.34
Control Delay	7.7	6.9	7.0	6.6		5.9		4.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	7.7	6.9	7.0	6.6		5.9		4.4
LOS	A	A	A	A		A		A
Approach Delay		7.0		6.6		5.9		4.4
Approach LOS		A		A		A		A

Intersection Summary

Cycle Length: 50
Actuated Cycle Length: 23.8
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.36
Intersection Signal Delay: 5.9 — Intersection LOS: A
Intersection Capacity Utilization 44.7% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Bay Street & West Lathrop Ave




Carter::Burgess

Appendix B

Victory Drive and SR 21 Analysis:

Traffic Data and Technical Memoranda

RS&H Architects•Engineers•Planners, Inc.

Memorandum

Date: December 14, 2007

To: Mike Weiner, City of Savannah
Mark Wilkes, Chatham County-Savannah Metropolitan Planning Commission

From: Steve Cote and Radha Krishna Swayampakala, RS&H

Subject: Traffic Signal Warrant Analysis, Rowland Avenue and Skidaway Road

Summary

RS&H has completed a signal warrant analysis for the intersection of Rowland Avenue and Skidaway Road using the 2007 Existing Conditions from the Congestion Management Process (CMP) Update Task Order for the Chatham County – Savannah Metropolitan Planning Commission. As presented in the initial 2007 Existing Conditions analysis from the CMP, traffic demand on Rowland Avenue either approaches or exceeds the roadway capacity limits at its intersection with Skidaway Road during the AM and PM peak hours. At the request of City of Savannah Traffic Engineering staff, a signal warrant analysis was performed to determine the need for a traffic signal at this intersection. The signal warrant analysis was completed using the eight (8) signal warrants described in the Manual on Uniform Traffic Control Devices (MUTCD) 2003 edition. Traffic count data for this intersection was collected in October 2007 for 7:00 AM – 9:00 AM; 11:00 AM – 1:00 PM; and 4:00 PM – 7:00 PM.

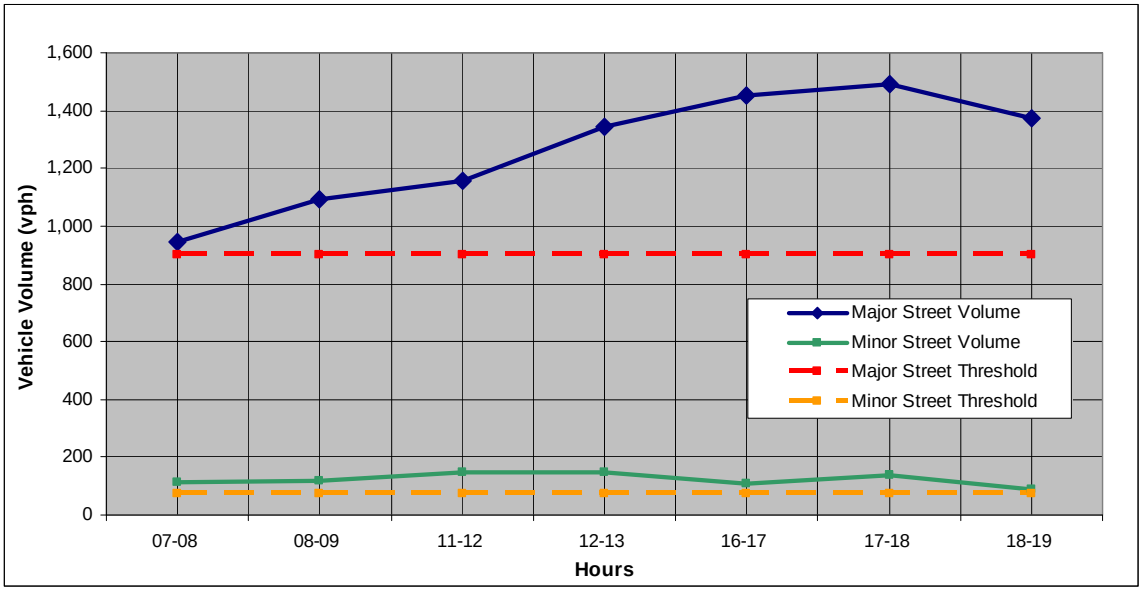
The results of the signal warrant analysis indicate that the following four of the eight warrants are met for installing a traffic signal at the intersection of Skidaway Road at Rowland Avenue:

- Warrant #1: Eight-hour Vehicular Volume
- Warrant #2: Four-hour Vehicular Volume,
- Warrant #6: Coordinated Signal System, and
- Warrant #8: Roadway Network

The following summarizes the detailed results of the warrant analysis.

Warrant 1 – Eight-Hour Vehicular Volume: According to the MUTCD, the need for a traffic signal under the Eight Hour Warrant shall be considered if the minor street approach traffic volume is greater than 75 vehicles per hour (vph) while the major street two-way volume is greater than 900 vph. The 2007 CMP Existing Conditions traffic volumes indicate that *Warrant 1* is met for the seven hours for which the traffic count data is available. Skidaway Road is designated as the major street and Rowland Avenue as the minor street for this analysis. Traffic count data is not available for the period between 1:00 PM and 4:00 PM. Traffic volumes on Rowland Avenue between 12:00 PM – 1:00 PM and 4:00 PM – 5:00 PM are 150 vph and 107 vph, respectively. Traffic volumes on Skidaway Road between 12:00 PM – 1:00 PM and 4:00 PM – 5:00 PM are 1,345 vph and 1,452 vph, respectively. Based on this data, the chances of having more 75 vph on Rowland Avenue and 900 vph on Skidaway Road are very high between 1:00 PM to 4:00 PM. Based on this information, the conditions for *Warrant 1 - Eight-Hour* are met. Figure 1 and Table 1 show the total volumes and Warrant 1 thresholds for the major street and minor streets.

Figure 1
Hourly Traffic Volumes and Warrant 1 Thresholds



Note: Major Street Volumes/Thresholds indicate the hourly totals for both approaches on Skidaway Road
Minor Street Volumes/Thresholds indicate the hourly volumes on Rowland Avenue

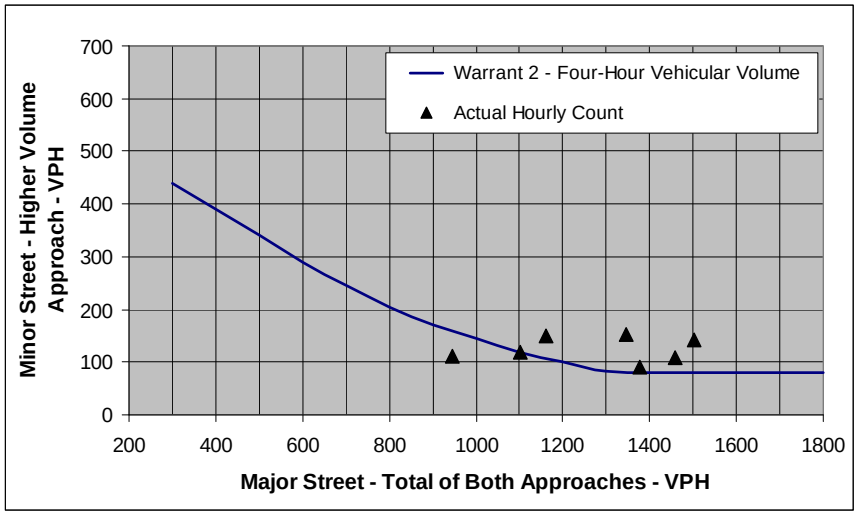
Table 1
Hourly Traffic Volumes and Warrant 1 Thresholds

Duration	Major Street Volume	Minor Street Volume	Major Street Threshold	Minor Street Threshold
7:00 AM – 8:00 AM	946	111	900	75
8:00 AM – 9:00 AM	1,093	119	900	75
11:00 AM – 12:00 PM	1,158	148	900	75
12:00 PM – 1:00 PM	1,345	150	900	75
4:00 PM – 5:00 PM	1,452	107	900	75
5:00 PM – 6:00 PM	1,494	139	900	75
6:00 PM – 7:00 PM	1,374	91	900	75

Warrant 2 – Four-Hour Vehicular Volume: According to the MUTCD, the need for a traffic signal under the Four-Hour Vehicular Volume Warrant shall be considered if, during any four hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and corresponding vehicles per hour on the higher-volume minor-street approach (one-direction only) fall above the applicable curve representing the warrant threshold.

As shown in Figure 2, five of the seven points corresponding to the hourly counts available for this intersection fall above the four-hour vehicular volume curve. Based on this information, the conditions for Warrant *2* are met.

Figure 2
Four-Hour Traffic Signal Warrant Analysis



Note: Points falling above the curve indicate the hours during which the Warrant 2 is met

Warrant 3 - Peak Hour: According to the MUTCD, the need for a traffic signal under the Peak Hour Warrant shall be considered if the criteria in either of the following two categories are met:

A) If all three of the following conditions exist for the same one hour (any four consecutive 15-minute periods) of an average day:
   1) The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a stop sign equals or exceeds: four vehicle-hours for a one-lane approach; or five vehicle-hours for a two-lane approach, and
   2) The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and
   3) The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches

B) The plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve representing the warrant threshold.

The highest stopped time delay experienced by the westbound Rowland Avenue traffic is 3.6 vehicle-hours, which is less then the threshold defined by the MUTCD. The hourly stopped time delays experienced by the traffic at the study intersection are presented in Table 2. Also, as shown in Figure 3 none of the seven points corresponding to the hourly counts available for this intersection fall above the peak hour vehicular volume curve. Based on this information, the conditions for Warrant *3* are not met.

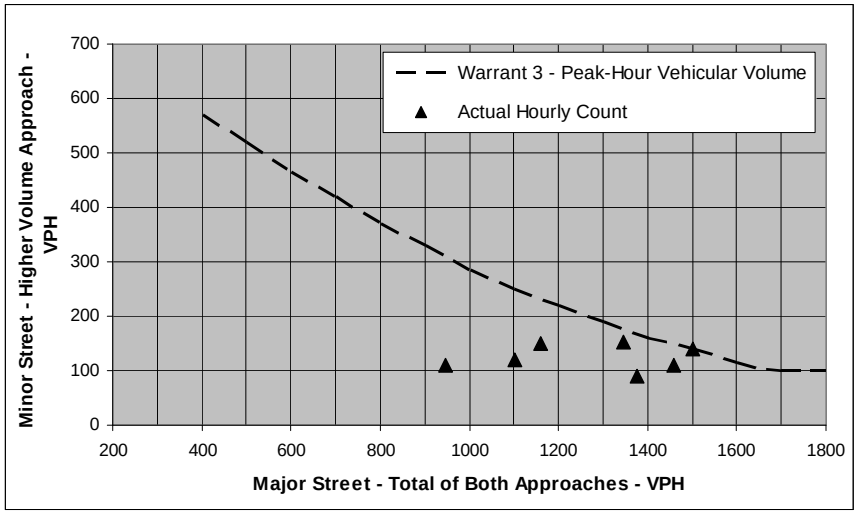
Table 2
Hourly Stopped Time Delays

Duration	Westbound Rowland Avenue *(Vehicle Hours)*	Northbound Skidaway Road *(Vehicle Hours)*	Southbound Skidaway Road *(Vehicle Hours)*
7:00 AM – 8:00 AM	0.8	1.1	1.2
8:00 AM – 9:00 AM	1.1	1.3	1.4
11:00 AM – 12:00 PM	1.3	1.4	1.5
12:00 PM – 1:00 PM	2.7	1.7	1.8
4:00 Pm – 5:00 PM	1.7	1.9	1.9
5:00 PM – 6:00 PM	3.6	2.0	1.9
6:00 PM – 7:00 PM	1.0	1.8	1.7

Note: The westbound approach stopped time delays indicate the delays experienced by all the westbound traffic

The northbound and southbound approach stopped time delays indicate the delays experienced by the left- and right-turning traffic off of the respective approaches

Figure 3
Peak Hour Traffic Signal Warrant Analysis



Note: Points falling above the curve indicate the hours during which the Warrant 3 is met

Warrant 4 – Pedestrian Volume: According to the MUTCD, the need for a traffic control signal at an intersection or midblock crossing shall be considered under the Pedestrian Volume Warrant if both of the following criteria are met:

A. The pedestrian volume crossing the major street at an intersection or midblock location during an average day is 100 or more for each of any 4 hours or 190 or more during any 1 hour; and

B. There are fewer than 60 gaps per hour in the traffic stream of adequate length to allow pedestrians to cross during the same period when the pedestrian volume criterion is satisfied. Where there is a divided street having a median of sufficient width for pedestrians to wait, the requirement applies separately to each direction of vehicular traffic.

The traffic count data indicates that number of pedestrians crossing Skidaway Road (major street) is less then 10 pedestrians per hour. Table 3 presents the pedestrian volume at the study intersection. Based on this information, the conditions for *Warrant 4* are not met.

Table 3
Pedestrian Volumes

Duration	**Westbound** *(Pedestrian/Hour)*	**Northbound** *(Pedestrian/Hour)*	**Southbound** *(Pedestrian/Hour)*
7:00 AM – 8:00 AM	0	0	0
8:00 AM – 9:00 AM	0	8	2
11:00 AM – 12:00 PM	1	1	2
12:00 PM – 1:00 PM	3	1	0
4:00 Pm – 5:00 PM	2	3	3
5:00 PM – 6:00 PM	2	5	3
6:00 PM – 7:00 PM	0	1	2

Warrant 5 – School Crossing: According to the MUTCD, the need for a traffic control signal under the School Crossing Warrant shall be considered if the frequency and adequacy of gaps in the vehicular traffic stream, (as related to the number and size of groups of school children at an established school crossing across the major street), shows that the number of adequate gaps in the traffic stream (during the period when the children are using the crossing) is less than the number of minutes in the same period, and there are a minimum of 20 students during the highest crossing hour.

Based on the available information, the conditions for Warrant *5* are not met.

Warrant 6 – Coordinated Signal System: According to the MUTCD, the need for a traffic control signal under the Coordinated Signal System Warrant shall be considered if one of the following criteria is met:

> A. On a one-way street or a street that has traffic predominantly in one direction: the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning.
>
> B. On a two-way street: adjacent traffic control signals do not provide the necessary degree of platooning, and the proposed and adjacent traffic control signals will collectively provide a progressive operation.

Based on the field conditions, installing a traffic signal would improve traffic platooning conditions along Skidaway Road in the vicinity of Rowland Avenue.

Warrant 7 - Crash Experience: According to the MUTCD, the need for a traffic signal under the Crash Experience Warrant shall be considered if five or more reported crashes (crash types susceptible to correction by a traffic control signal), have occurred within a 12-month period. Each crash must have involved personal injury or property damage apparently exceeding the applicable requirements for a reportable crash.

The Georgia Department of Transportation (GDOT) crash records obtained from the Critical Analysis Reporting Environment (CARE) database show that there were three traffic signal "correctable" crashes at this intersection for the period from December 2005 to November 2006. Based on this information, the conditions for Warrant 7 are not met.

Warrant 8 – Roadway Network: According to the MUTCD, the need for a traffic signal under the Roadway Network Warrant shall be considered if the common intersection of two or more major routes meets one or both of the following criteria:

A. The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour (vph) during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or

B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday).

During the peak hours more than 1,000 vph enter this intersection and meets the Warrant 2 under the 2007 Existing Conditions. Based on this information, the conditions for Warrant 8 are met.

MEMORANDUM

To: Mike Weiner, City of Savannah
Mark Wilkes, Chatham County-Savannah Metropolitan Planning Commission

From: Steve Cote and Beverly Davis, RS&H

Date: December 20, 2007

RE: Victory Drive Study Area Recommendations

Background

As part of the Congestion Management Process update, RS&H was asked to evaluate both short and long term alternatives in the area surrounding the new Home Depot shopping center on Victory Drive near Skidaway Road. In addition to Home Depot, a Target and Staples have also opened in the same center, as well as several other smaller businesses.

It was determined that updated traffic counts and turning movements in the area were needed to adequately assess and analyze the traffic conditions. RS&H met with MPC staff to determine the appropriate locations for these counts; the proposed count locations were also sent to the City staff for review. The traffic data was collected after the opening of the big box stores the third week of October. In addition to weekday counts, Saturday counts were also collected due to the peak period traffic associated with the businesses at the shopping center.

In addition, an internal staff workshop was held with the City staff, MPO staff, GDOT and RS&H on November 9th to identify any existing projects and to brainstorm on potential solutions for both the short and long terms.

The workshop resulted in identifying the following short term improvement alternatives for testing:

Alternative 1. At the intersection of Wallin Street and Victory Drive, change the northbound and southbound approach left-turn treatments to split phase
Alternative 2. At the intersection of Wallin Street and Victory Drive, add a dual left-turning lane for the northbound approach (exiting the shopping center)
Alternative 3. At the Victory Drive/Wallin Street intersection, prohibit the northbound left-turning movement and relocate them to the intersection of Victory Drive/Aaron's Rent Driveway; analyze roundabout, jug-handle, traffic signal or other innovative similar treatments to facilitate the northbound left-turning traffic and improve the traffic flow entering/exiting the shopping center.
Alternative 4. Signal warrant analysis at the Skidaway Road/Rowland Avenue intersection (City Requested)

It was decided that Alternative 3 was not a feasible option because of the sight distance issues due to the large live oak trees adjacent to Victory Drive. In addition, the implementation of a median cut at the eastern entrance to the shopping center was also decided to be impractical.

Two alternatives for improvements in the long term were identified. These alternatives included the implementation of a frontage road system on the south side of Victory Drive and a slip ramp from the northbound exit ramp of Truman Parkway directly into the shopping center. The potential for extending this connection west of Truman Parkway will also be examined.

Analysis

Alternatives 1 and 2:
These two alternatives were analyzed using Synchro/Sim Traffic. The results of the analysis are summarized below:

- Under the 2010 No Build Conditions, the northbound approach has a maximum queue length of 415 feet, with an average queue length of 175 feet.
- The northbound and southbound left-turn treatment was changed from Protected to Split treatment.
- Two left-turn lanes were provided for the northbound left-turn movement with 125 feet storage lengths.
- With these two improvements, the northbound approach maximum queue length will be reduced to 230 feet, with an average queue of 140 feet.
- The reduction in queue length would facilitate improved flow and better access into parking lots for the vehicles entering the shopping center at this intersection.
- The northbound dual left-turn scenarios with split and protected left-turn treatments were tested. The reduction in queue is not affected by the left-turn treatments; it is affected only by the dual vs. single left-turn lanes.
- By extending the storage lengths to 150 feet, the maximum and average queues for the northbound approaches would be 180 and 100 feet respectively.

A graphic depicting the queue lengths and the impacted area internal to the shopping center is shown in **Figure 1** found on Page 4.

Alternative 3:
While the analysis was completed for the third alternative, because of the associated issues described above, this alternative was not considered viable. In addition, a new signal would be required and the location of the entrance between the signals at Wallin and Skidaway was not a feasible option.

Alternative 4:
The results of the signal warrant analysis indicate that the following four of the eight warrants are met for installing a traffic signal at the intersection of Skidaway Road at Rowland Avenue:

- Warrant #1: Eight-hour Vehicular Volume
- Warrant #2: Four-hour Vehicular Volume,
- Warrant #6: Coordinated Signal System
- Warrant #8: Roadway Network

A full memo describing the signal warrant analysis was provided to City and MPC staff on December 14, 2007.

Recommendations

Although the long term alternatives were not tested for this effort, these potential solutions are considered in the overall recommendations. The following recommendations developed from the analysis include:

1. **Implement a dual left turn lane configuration for the westbound traffic exiting the shopping center at the Wallin Street\Victory Drive intersection.**

2. **Reconfigure Rowland Avenue at Skidaway to align with the entrance into the shopping center.**

3. **Install signal at the new Rowland Avenue/Shopping Center entrance intersection identified in #2 above.**

4. **Work with the property owners to close off the northernmost entrance bay in the parking lot by the Wallin Street entrance; this is required to allow enough vehicle storage in the dual left turn lane bays .**

It is anticipated that these recommendations, along with the current programmed GDOT projects of dual right turn lanes from the northbound exit ramp of Truman Parkway onto Victory Drive and the extension of the eastbound left turn lane on Victory Drive at Wallin Street will alleviate some of the congestion in the area.

The realignment of Rowland Avenue will work more efficiently both in the short term and in the long term regardless of the recommended alternative. The new alignment consolidates two intersections and provides parallel capacity to Victory Drive directly from the shopping center.

Figure 1. Shopping Center Queue Lengths

Memorandum

Reynolds, Smith and Hills, Inc.

Architectural, Engineering, Planning and Environmental Services

Date: January 30, 2008

To: Mark Wilkes, CUTS/MPO

From: Whitney Shephard, RS&H

Subject: CMP travel demand modeling for SR80/Victory Dr reliever

Figure 1 shows a conceptual layout for a potential parallel reliever for SR 80/Victory Drive at Truman Parkway, a congested location in Chatham County. Figure 2 and Figure 3 show alternative network coding to represent the parallel reliever. Figure 2 shows Shell Rd extended through the Home Depot plaza, passing over Truman Pkwy and connecting to Kerry Street, as a reliever to Victory Drive. While Rowland Avenue is a more likely candidate for extension, Rowland Ave is not coded in the original network; therefore, this figure represents a minimal intervention on the base model. Figure 3 shows the network with Rowland Avenue added and extended as a parallel reliever. (Running the travel demand model with the alternative coding helped to verify the results.) In both cases, centroid connector locations were adjusted to represent the local roads not included in the model networks.

The figures that follow show 2030 travel demand model output based on the Chatham County Interstate Study (CCIS) model for the 2030 existing plus committed (2030 EC) road network as well as the 2030 fiscally constrained CUTS model from GDOT. Figure 4 shows the CCIS daily level of service (LOS) and one-way volume model results without any changes to the road network. Figure 5 shows the model results with Shell Road extended. Figure 6 shows the results of adding Rowland Avenue to the model and extending it from its present end. Figure 7 shows the CUTS model results without changes. Figure 8 and Figure 9 show the results with the reliever in place, from Shell Road and Rowland Avenue, respectively.

Table 1 and Table 2 provide a quick summary of the model results. **Overall, the maximum estimated two-way peak hour reduction in traffic on SR80/Victory Drive is 540 vehicles (or a maximum of 210 vehicles per hour per lane). The maximum two-way daily reduction is 3,970 vehicles.** The daily level of service on SR80 at Truman Parkway is 'F' on the worst segments in the base case model results as well as all alternatives tested. However, **daily level of service on many links that are at or near congestion in the base case improves from 'F' to 'D' or 'D' to 'C' with the parallel reliever in place**.

Table 1 Summary of CCIS Model Results

	2030 EC Base Scenario	2030 EC with Parallel Reliever	
	Original 2030 EC CCIS model	With Shell Rd extended	With Rowland Ave added and extended
Max daily two-way volume on SR 80 at Truman Pkwy	44,220	40,250 (3,970 less than base)	40,410 (3,810 less than base)
Peak hour two-way volume estimate on SR 80	5,480	4,940 (540 less than base)	4,980 (500 less than base)
Reliever max daily volume	-	6,390	5,740
Max peak hour two-way volume estimate on reliever	-	810	720

Table 2 Summary of CUTS 2030 Constrained Model Results

	2030 Base Scenario	2030 with Parallel Reliever	
	Original 2030 CUTS Constrained model	With Shell Rd extended	With Rowland Ave added and extended
Max daily two-way volume estimate on SR 80	43,430	40,410 (3,020 less than base)	40,180 (3,250 less than base)
Peak hour two-way volume estimate on SR 80	5,330	4,920 (410 less than base)	4,920 (410 less than base)
Reliever max daily volume	-	5,280	4,990
Max peak hour two-way volume estimate on reliever	-	630	600

Note:

1. Modeling assumes trip generation remains constant from base run to both alternatives. That is, trip generation was not rerun for each alternative.

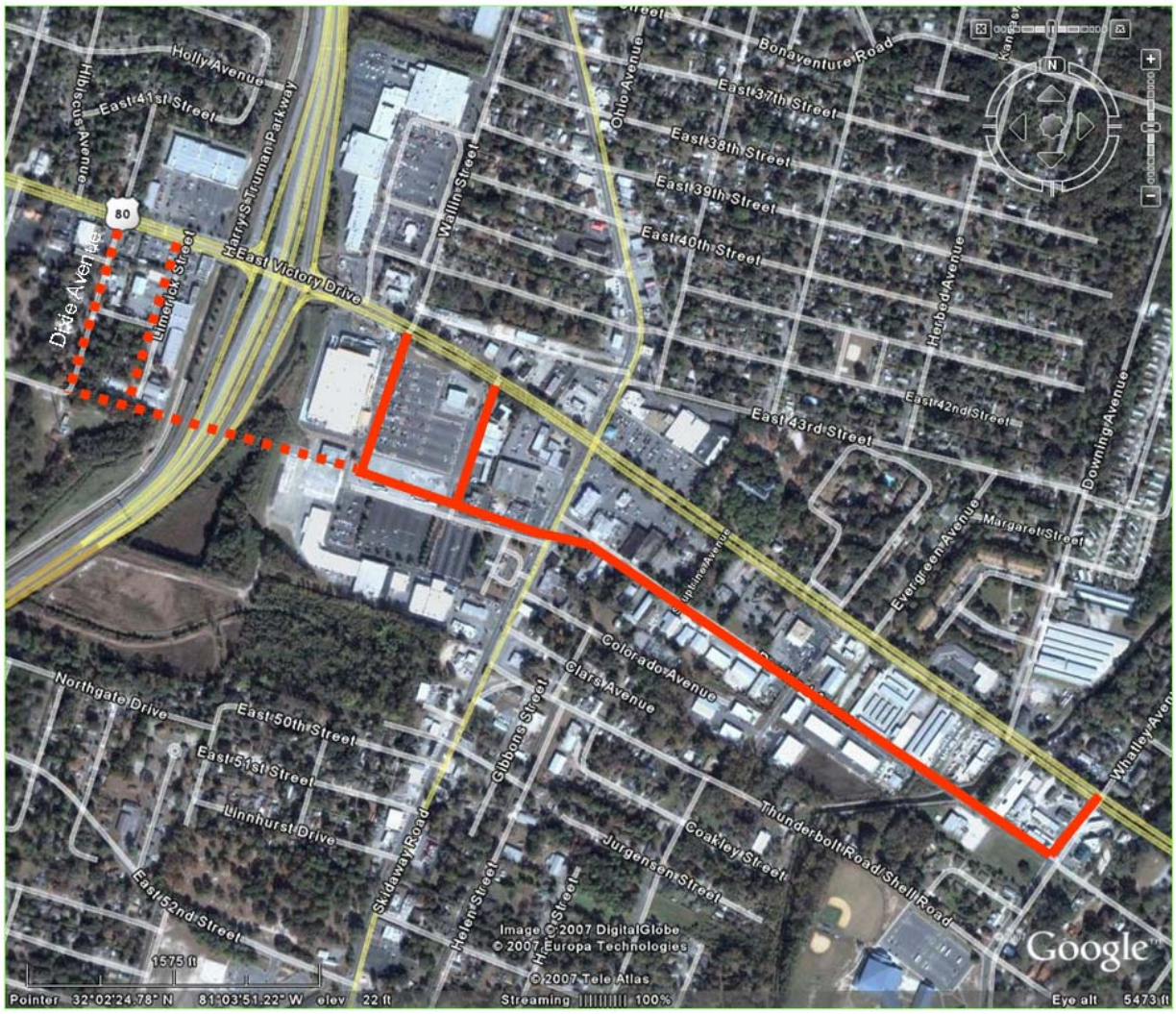


Figure 1 Conceptual layout of SR80/Victory Drive parallel reliever extending west from Rowland Avenue and connecting to Kerry Street west of Truman Pkwy

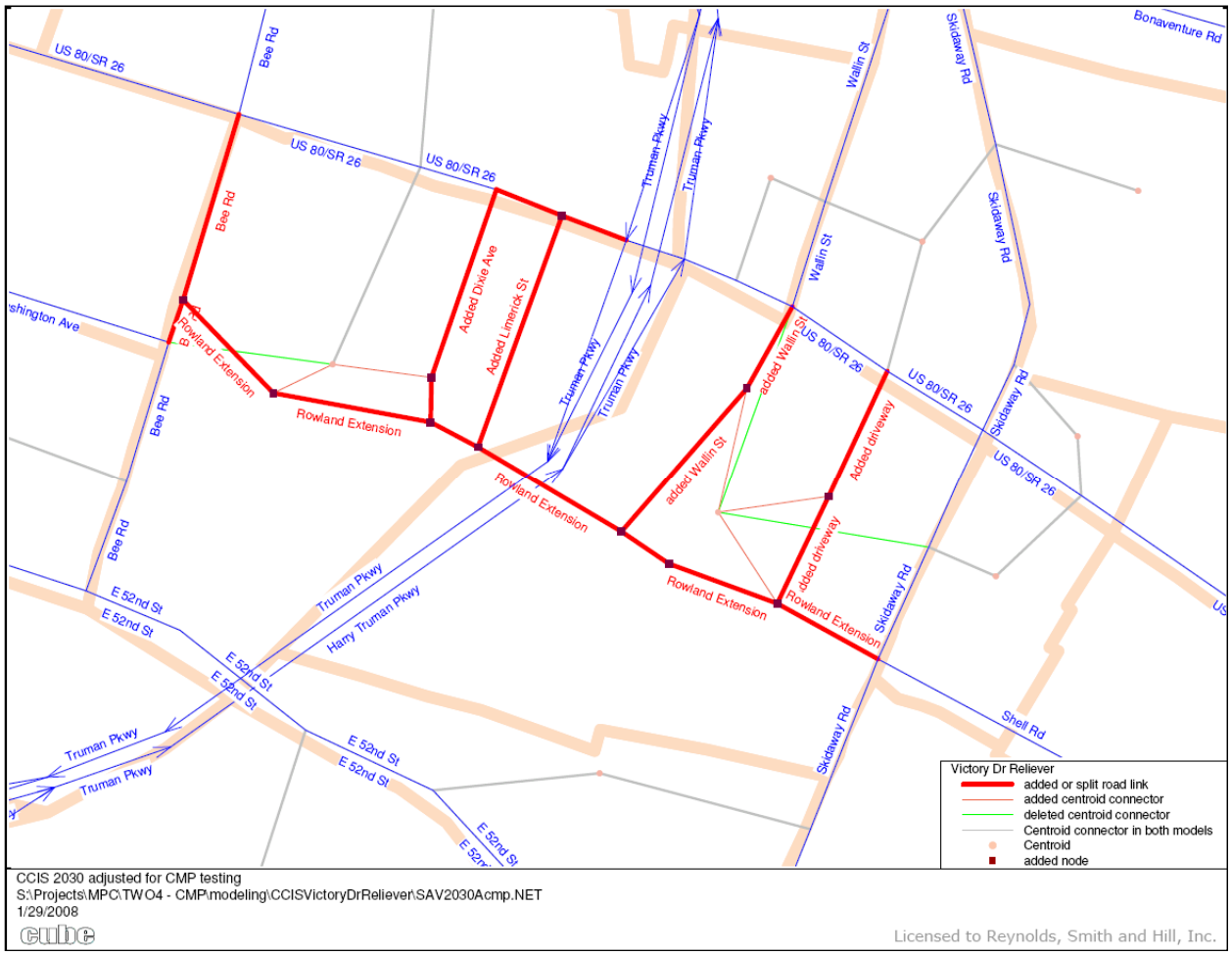


Figure 2 Model network with Shell Road (Thunderbolt Rd) extended west across Truman Pkwy

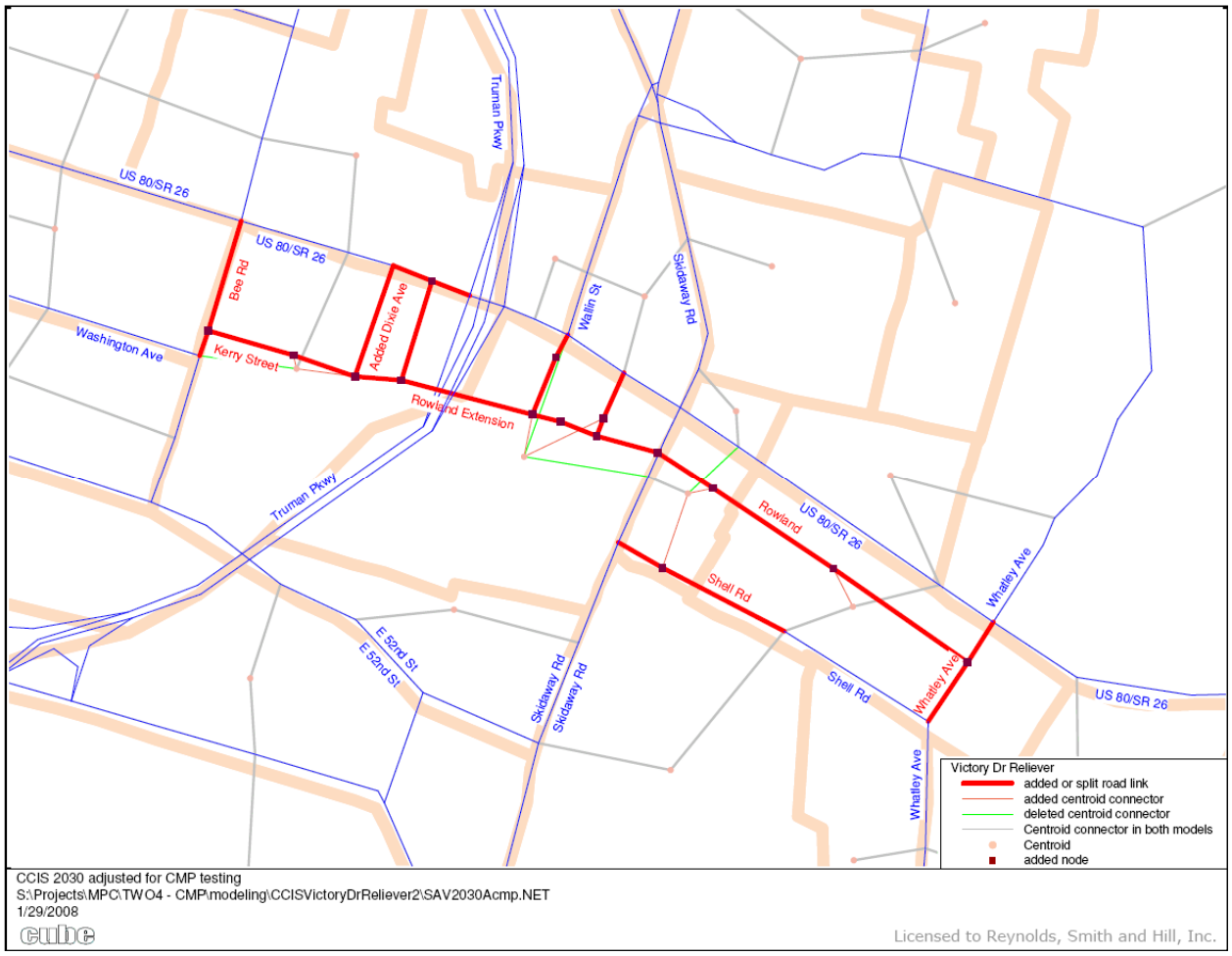


Figure 3 Model network with Rowland Avenue added and extended west across Truman Pkwy

Figure 4 Daily LOS and volume from CCIS 2030 EC model without any changes

Figure 5 Daily LOS estimate and volume with Victory Dr Reliever in place (Shell Rd extended as Rowland surrogate, reference run CCIS#1)

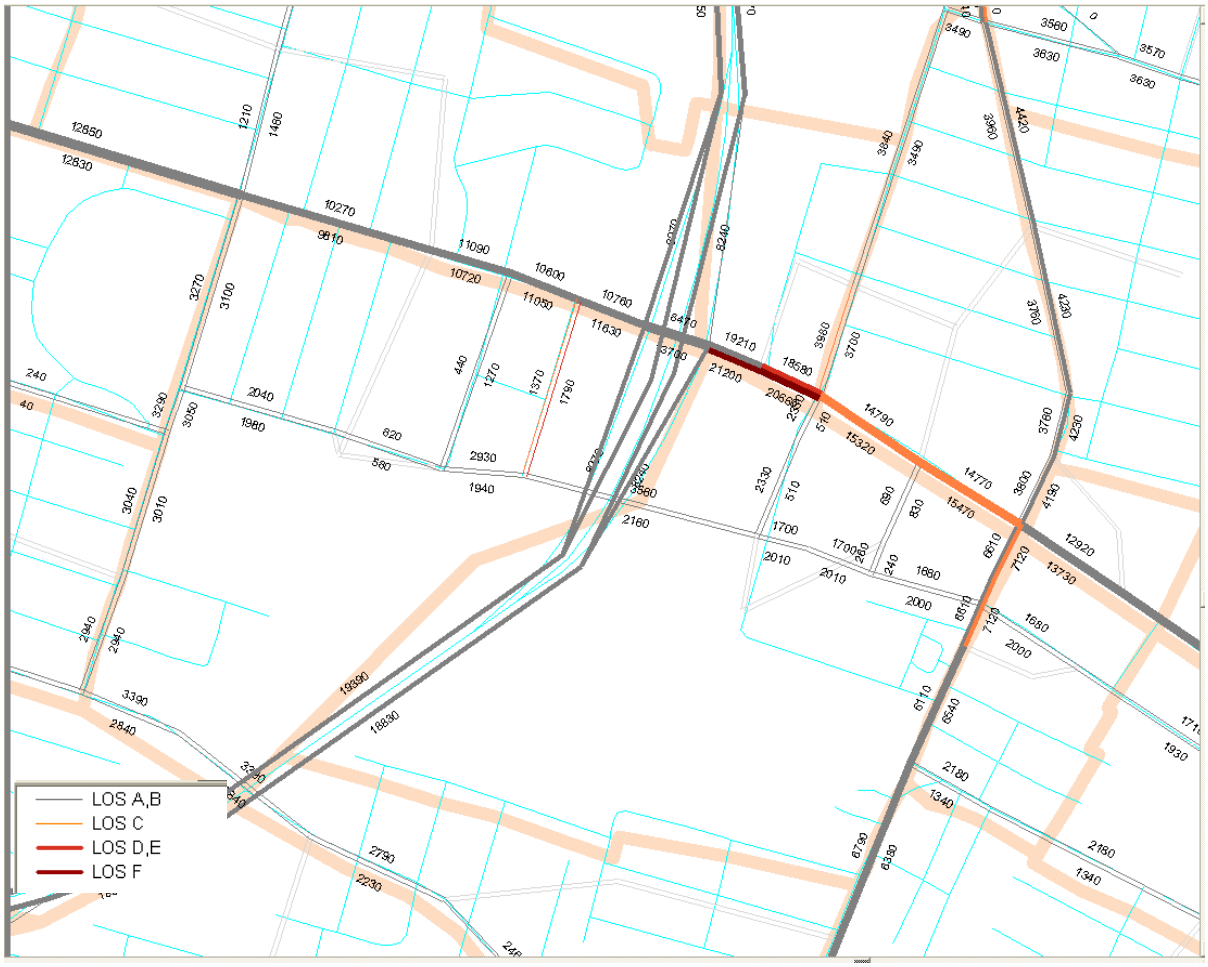


Figure 6 Daily LOS estimate and volume with Victory Dr reliever in place (Rowland added to network, reference run CCIS#3)

Figure 7 Daily LOS and volume for the CUTS constrained 2030 model with no changes

Figure 8 Daily LOS and volume on 2030 constrained CUTS model with Victory Dr/SR 80 reliever in place (as Shell Rd extended)

Figure 9 Daily LOS and volume on 2030 constrained CUTS model with Victory Dr/SR 80 reliever in place (with Rowland Avenue added to the network and extended)

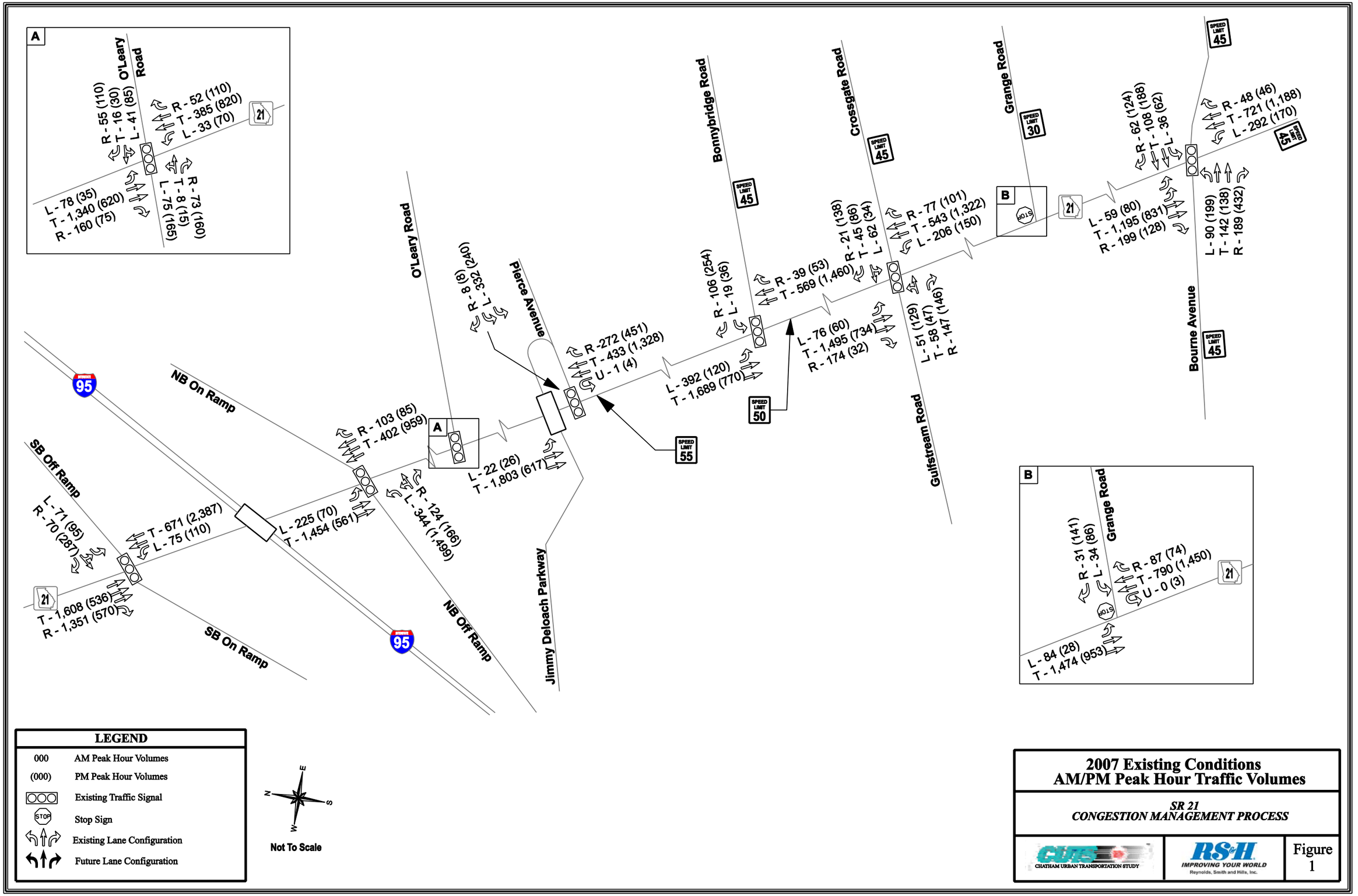
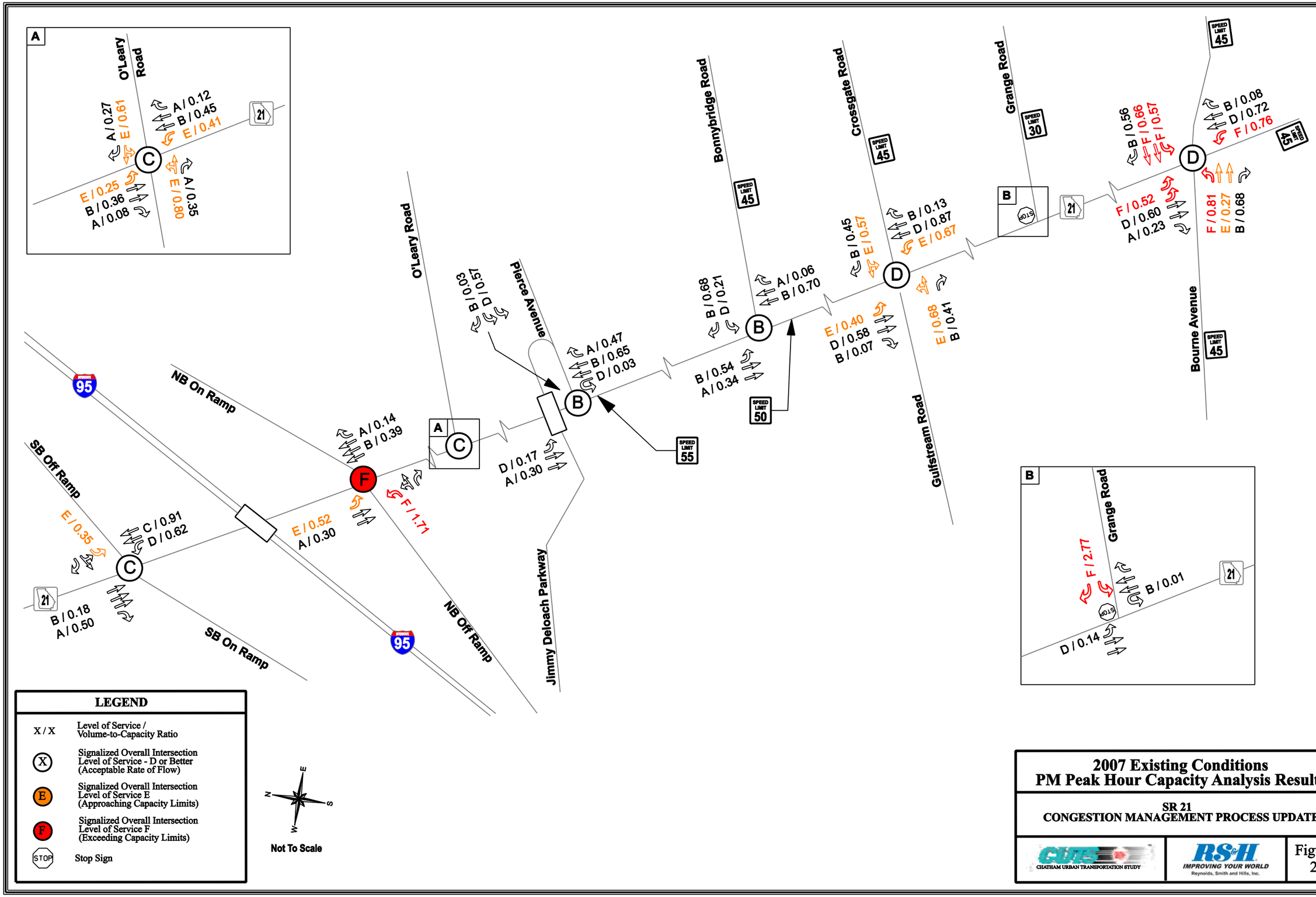


Fig 1 Traffic Volumes.dgn 3/11/2008 9:59:04 AM



LEGEND

X / X	Level of Service / Volume-to-Capacity Ratio
(X)	Signalized Overall Intersection Level of Service - D or Better (Acceptable Rate of Flow)
(E)	Signalized Overall Intersection Level of Service E (Approaching Capacity Limits)
(F)	Signalized Overall Intersection Level of Service F (Exceeding Capacity Limits)
STOP	Stop Sign

N E S W

Not To Scale

2007 Existing Conditions PM Peak Hour Capacity Analysis Results

SR 21
CONGESTION MANAGEMENT PROCESS UPDATE

CHATHAM URBAN TRANSPORTATION STUDY

RS&H IMPROVING YOUR WORLD Reynolds, Smith and Hills, Inc.

Figure 2

Appendix C

Additional Information:

Transportation Management Centers

Table of Contents

1.0 COLLABORATION AND COORDINATION: HOW TO IMPLEMENT AND MANAGE A TMC 4

1.1 Structure 4

1.2 Processes 5

1.3 Products 5

1.4 Resources 6

1.5 Performance Improvement 6

2.0 CASE STUDIES 7

2.1 Georgia Navigator 7

2.2 Capital Wireless Integrated Network (CapWIN) 11

2.2.1 Structure 11

2.2.2 Processes 12

2.2.3 Products 12

2.2.4 Resources 12

2.2.5 Performance Improvement 12

2.3 Transportation Operations Coordinating Committee (TRANSCOM) 12

2.3.1 Structure 12

2.3.2 Processes 12

2.3.3 Products 13

2.3.4 Resources 13

2.3.5 Performance Improvement 13

2.4 Southern California ITS Priority Corridor 13

2.4.1 Structure 13

2.4.2 Processes 14

2.4.3 Products 14

2.4.4 Resources 14

2.4.5 Performance Improvement 14

2.5 Summary of TMCs in the United States 14

3.0 OPERATIONS EQUIPMENT 15

List of Tables

Table 1. Action Steps for Regional Operations Collaboration and Coordination: Structure 5
Table 2. Action Steps for Regional Operations Collaboration and Coordination: Processes 5
Table 3. Action Steps for Regional Operations Collaboration and Coordination: Products 6
Table 4. Action Steps for Regional Operations Collaboration and Coordination: Resources 6
Table 5. Action Steps for Regional Operations Collaboration and Coordination: Performance Improvement 7
Table 6. Annual Benefits of Georgia Navigator 9
Table 7. Summary of TMC Costs 15

List of Figures

Figure 1. Typical Operations at the Georgia Navigator TMC 8
Figure 2. Average Incident Duration 10
Figure 3. Total Delay 10
Figure 4. Initial and Secondary Crashes 11
Figure 5. Closed-Circuit Television Camera 16
Figure 6. Ramp Meter 16
Figure 7. Changeable Message Sign (I) 17
Figure 8. Changeable Message Sign (II) 17
Figure 9. Video Detection System 18
Figure 10. Inside a TMC Facility (I) 18
Figure 11. Inside a TMC Facility (II) 19
Figure 12. Callbox 20

1.0 Collaboration and Coordination: How to Implement and Manage a TMC

A successful TMC relies on collaboration and coordination among an alliance of agencies. This may occur initially in response to a particular project or special event, such the Olympic Games. An ongoing process, however, requires a commitment by participating agencies to an intentional, focused effort toward regional operations. To support these efforts, there must be a pool of qualified staff and related resources among the participating agencies. In addition, there may need to be interagency positions to facilitate collaboration among the agencies.

Regional operations collaboration and coordination may be accomplished through a series of action steps that address *Structure, Processes, Products, Resources,* and *Performance Improvement*. These elements are explained in further detail below. The majority of this information was adapted from the Federal Highway Administration's *Regional Transportation Operations Collaboration and Coordination*.[1]

1.1 Structure

The structure of the operations environment within a TMC is represented by the relationships among participating agencies that enable collaboration and coordination. This may be a formal structure with legal authority or an informal, ad hoc arrangement whereby the agencies work toward common goals. These structures often evolve from less to more formal as agencies realize the benefits of operations collaboration. To be most effective, the structure of the operations environment should be linked to regional transportation planning; that is, while the initial structure may be a response to a specific need or special event, long-term success is achieved by tying operations management to regional transportation plans and programs, as well as transportation investments.

A variety of agencies may participate in the TMC operations, including the following:

- State Department of Transportation
- Metropolitan Planning Organization
- County or City Government
- Transit Authority
- Emergency Management
- Police
- Fire Department
- Chamber of Commerce

The particular participants within a region depend on the purpose of the TMC, its goals and objectives, and the willingness of agencies to participate in the process. Transportation Management Areas, which are urbanized areas with a population of over 200,000[2], are required to develop a Congestion Management Process (CMP) for the region. The CMP outlines how congestion will be managed through a series of recommendations. TMCs are often part of these recommendations, and have proven to be an effective means to manage congestion in a region.

The following table presents action steps for collaborating agencies to address the structure of operations management within a TMC.

---

[1] Regional Transportation Operations Collaboration and Coordination: A Primer for Working Together to Improve Transportation Safety, Reliability, and Security. *U.S. Department of Transportation, Federal Highway Administration. http://www.itsdocs.fhwa.dot.gov/JPODOCS/REPTS_TE/13686.html*

[2] *As of latest U.S. Census*

Table 1. Action Steps for Regional Operations Collaboration and Coordination: Structure

1. Identify key constituencies (e.g. employers, developers, communities) who support better system performance.
2. Enlist regional champions/leaders who are committed to working together (and encouraging others to work with them) in support of better system performance.
3. Develop a vision for regional transportation system performance that is shared by operators, service providers, and planners.
4. Establish operations as a regular item on the regional planning agenda.

Source: FHWA

1.2 Processes

Processes address how decisions are made among collaborating agencies to improve systems performance. An effective approach includes the consideration of capital improvements, multimodality, and other regional objectives that address the economy, environment, and mobility needs. The sharing of information and data is critical in the management of a TMC. This data is used to assess current transportation operations and identify trends that indicate specific needs for the transportation system.

The following table presents action steps for collaborating agencies to address processes within a TMC.

Table 2. Action Steps for Regional Operations Collaboration and Coordination: Processes

1. Make investments decisions based on the best combinations of capital investments and operations strategies (performance-based planning)
2. Ensure that the solutions (project) selection process and criteria provide a level playing field for operational improvements and investments. Tools are available to show the benefits of operational improvements.
3. Address operations activities (e.g. incident management, traveler information) in multimodal corridor planning.
4. Use operations performance audits (e.g. corridor-wide) as a tool for guiding investment choices.
5. Leverage operations to achieve regional goals (or meet other commonly sought outcomes).

Source: FHWA

1.3 Products

Once a TMC is fully functional, its products are typically the data, programs, plans, and other initiatives that are a direct result of the structure and processes of a TMC. These may include corridor studies, travel time data, volume counts, traffic monitoring, and so forth.

On a higher level, initial products of regional collaboration are the shared vision, strategies, and concept of operations that guide the management of the TMC. It defines what the participating agencies would like to accomplish, how that will be accomplished, what resources are needed (e.g., time, money, staff, equipment), and how the agencies should best work together to achieve this.

The following table presents action steps for collaborating agencies to address the products for a TMC.

Table 3. Action Steps for Regional Operations Collaboration and Coordination: Products

1. Provide a current conditions baseline to calibrate long-range planning
2. Develop a regional concept of operations that sets performance expectations for regional operators (priorities, projects, improvements, processes, performance, resources)
3. Get buy-in for the regional operations implementation agenda from public safety providers and agencies that operate elements of transportation systems.
4. Make the regional operations implementation agenda a necessary input into the transportation improvement plan/long-range plan (TIP/LRP).
5. Use market research as the common link between operations (customer feedback) and planning (planning input).

Source: FHWA

1.4 Resources

A TMC is operated with a pool of resources contributed by participating agencies. These resources include funding, staff, data, equipment, and other elements necessary to operate the center. The initial funding of regional operations typically comes from individual agency budgets, when the structure is not as formalized. As the TMC becomes fully functional, it is usually designated as a separate entity that receives funding from the participating agencies.

The following table presents action steps for collaborating agencies to address resources needed for a TMC.

Table 4. Action Steps for Regional Operations Collaboration and Coordination: Resources

1. Ensure linkages to the overall regional transportation planning process for needed investment in operations.
2. Use available funds to support convening activity for operators and planners.
3. Ensure that everyone at the regional collaboration and coordination table perceives a return on investment of time and other resources.
4. Use operations performance audits (e.g., corridor-wide) as a tool for guiding investment choices.
5. Make resources sufficiently available and flexible to effectively fund regional planning for operations activities and initiatives.

Source: FHWA

1.5 Performance Improvement

Performance improvement addresses the objectives of the TMC and how their success is measured. These may address public safety, security, mobility, and other elements addressed by operations management. Performance measures also encompass monitoring and reporting how well the specific systems or programs are operating, such as traffic signal controllers, surveillance equipment, and incident response.

The following table presents action steps for collaborating agencies to address performance within a TMC.

Table 5. Action Steps for Regional Operations Collaboration and Coordination: Performance Improvement

1. Agree on expected levels of performance and the need for improvement.
2. Develop and accept relevant regional performance measures.
3. Provide regular status reports on regional transportation system operations performance.
4. Share, link, and provide system managers and users with access to real-time and archived system performance data.

Source: FHWA

2.0 Case Studies

The following sections present additional case studies of TMCs according to the key elements presented in the previous sections: *Structure, Processes, Products, Resources,* and *Performance Improvement.* The majority of this information was adapted from the Federal Highway Administration's *Regional Transportation Operations Collaboration and Coordination*.[3]

2.1 Georgia Navigator

As previously stated, the GDOT created its Intelligent Transportation System, Georgia Navigator, in 1996 in anticipation of the Olympic Games in Atlanta to improve and monitor traffic mobility. The central hub of the Georgia Navigator TMC Center is in Atlanta, supported by several Transportation Control Centers through the metro Atlanta area. Since 1996, operations have expanded to include areas throughout the State, including a separate Transportation Control Center in Macon.[4]

Georgia Navigator coordinates with a variety of agencies within and outside GDOT. Within GDOT, these include:

- Office of Traffic and Safety Design (for ITS design services and project programming)
- Office of Maintenance (for emergency operations)
- Office of Construction (to coordinate ITS construction projects and traveler information for major GDOT construction projects)
- Office of Communications (for public information)
- Information Technology (for hardware and software support)
- Office of Utilities (for utility coordination in project design)
- Office of Oversize/Overweight Permits (for maintenance of ITS at weigh stations)
- Macon Regional TMC

Outside of GDOT, the TMC coordinates with additional agencies:

- Georgia Emergency Management Agency (GEMA)

[3] Regional Transportation Operations Collaboration and Coordination: A Primer for Working Together to Improve Transportation Safety, Reliability, and Security. *U.S. Department of Transportation, Federal Highway Administration. http://www.itsdocs.fhwa.dot.gov/JPODOCS/REPTS_TE/13686.html*

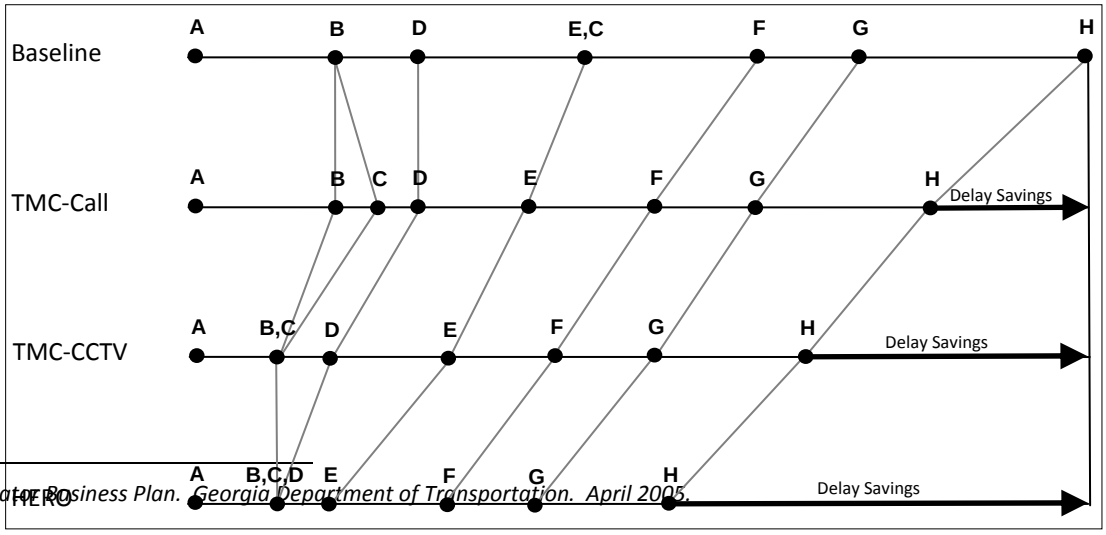
[4] *Navigator Business Plan. Georgia Department of Transportation. April 2005.*

- Local fire, police, EMS, and 911 centers
- Atlanta Regional Commission (ARC)
- Georgia Regional Transportation Authority (GRTA)
- Federal Highway Administration (FHWA)
- Towing and Recovery Association of Georgia (TRAG)
- Multi-state ITS Software Consortium (MISC)
- I-95 Corridor Coalition
- Georgia State Patrol (GSP)
- Department of Motor Vehicle Safety (DMVS)

Georgia Navigator's major functions are (a) Freeway and Arterial Management and (b) Incident Management. The TMC maintains mobility along the state's freeways and arterials through a system of cameras, detectors, ramp meters, and other infrastructure that support ITS information. These relay information such as travel time and major incidents to the TMC, which then disseminates the information to the public and the media. With Incident Management, the TMC coordinates human and technical resources to reduce the duration and impact of incidents, and improve the safety of motorists, victims, and safety responders. One of the most successful aspects of the Incident Management program is the implementation of HERO (Highway Emergency Response Operator) vehicles. These help restore traffic flow by responding quickly to incidents and clearing the roadway of stalled vehicles. Another element of the program is changeable message signs, which relay travel time and incident information to motorists along arterials and interstate highways. In addition, Georgia Navigator has a website that displays travel and incident information, as well as a phone line that motorists can call to receive real-time travel information.[5]

Figure 1 below shows a time-scaled chart of typical operations at the Georgia Navigator TMC. The baseline conditions exhibit operations to respond to an incident without the Georgia Navigator system. The next three lines exhibit operations to respond to an incident with a phone call to the TMC; detected by CCTV cameras; and response by a HERO unit, respectively. The chart shows that the Georgia Navigator system yields significantly lower response times, incident clearance times, and time to return to normal traffic flow, compared to operations with the Georgia Navigator system in place.

Figure 1. Typical Operations at the Georgia Navigator TMC



[5] *Navigator Business Plan. Georgia Department of Transportation. April 2005.*

Source: Benefits Analysis for the NaviGAtor Program, *August 2006*

Key: *Note: Figure is not to scale*

A = Incident Occurs
B = Incident Reported
C = Incident Verified
E = Response Arrives
F = Partial Clearance
G = Full Clearance

A significant expenditure of funds is required to operate the Georgia Navigator TMC. For the 2003/2004 fiscal year, the annual capital, operating, and maintenance expenses were $42.5 million.[6] However, the program has created far more benefits in cost savings. The table below is a synopsis of the annual benefits derived from the Navigator system's Incident Management program between May 2003 and April 2004.

Table 6. Annual Benefits of Georgia Navigator

Benefits Measure	Benefit	Cost Savings
Mobility	**7,254,495** vehicle-hours of incident-delay savings	$152,053,180
Environmental	**186** tons of HC emissions reduced **2,457** tons of CO emissions reduced **262** tons of NO_x emissions reduced	$20,243,009
	5,172,455 gallons of gasoline consumption reduced **1,658,170** gallons of diesel fuel consumption reduced	$10,365,969
Customer Satisfaction	**49,051** motorist assists provided to travelers	$2,955,323
Safety	**466** secondary crashes reduced	$1,614,564
Total		**$187,228,535**

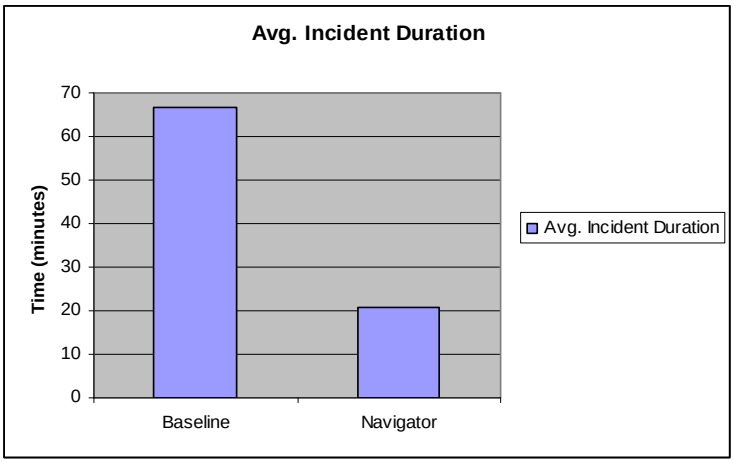
Source: Benefits Analysis for the GDOT Navigator Program – Executive Summary. August 2006.

The benefit of approximately $187 million in cost savings compared to the $42.5 million expenditure for the system creates a benefit-cost ratio of 4.4 to 1.

Below, Figures 2 through 4 show additional quantifiable benefits of the Georgia Navigator system.

[6] *Benefits Analysis for the GDOT Navigator Program – Executive Summary. August 2006.*

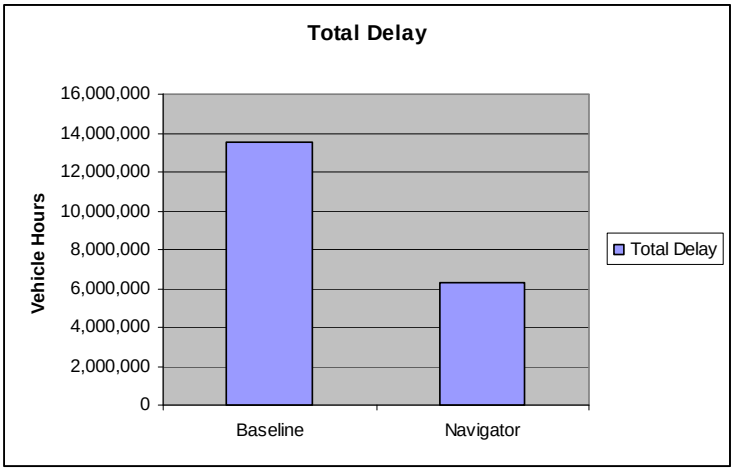
Figure 2. Average Incident Duration



Source: Georgia Navigator

The Navigator program caused a 68.9% decrease in the duration of an accident event. The duration is defined as from the time of the accident to the point of clearance and full flow of traffic.

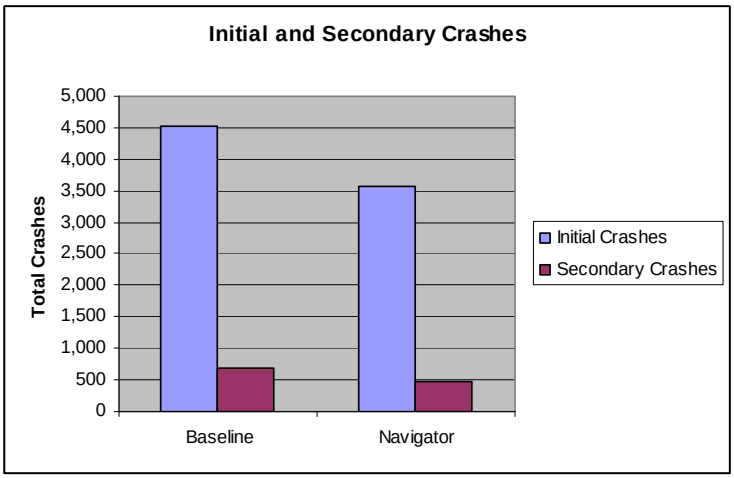
Figure 3. Total Delay



Source: Georgia Navigator

The Navigator program provided a 53.6% decrease in total vehicle hours during incident duration.

Figure 4. Initial and Secondary Crashes



Source: Georgia Navigator

The Navigator program caused initial crashes to drop by 20.8%, while the secondary crash rate dropped by 31.1% per incident.

2.2 Capital Wireless Integrated Network (CapWIN)

CapWIN, an integrated transportation and criminal justice information wireless network, is being developed to address better coordination and information-sharing among public safety and transportation agencies and organizations in Maryland, Virginia, and Washington, DC. Currently, agencies in the DC region cannot directly communicate in a mobile environment. Rather, when incidents occur, responders use their own communication centers to pass messages among other responders. CapWIN will allow these agencies to communicate directly with each other and access information to plan and implement traffic control during major incidents. Law enforcement and emergency medical services will also use CapWIN to share critical information across counties and regions and improve response to emergencies. The transportation-related benefits of CapWIN include:

- Reduced traffic delays,
- Increased customer satisfaction,
- Shared historical information among agencies,
- Improved resource allocation through real-time information,
- Increased worker safety in construction zones,
- Improved response to natural and man-made disasters,
- Increased transportation and public safety assistance through increased information, and
- Reduced duplication of expenditures on technology.

2.2.1 Structure

Law enforcement, fire and rescue, EMS, transportation agencies, motorist assistance services, information service providers, the media, and other incident responders have committed to working together to improve communications and to facilitate a coordinated response to emergencies. CapWIN has user groups that develop the strategic plan and other aspects of the project.

2.2.2 Processes

Improved voice and data communications have enhanced the capabilities of the agencies to respond to traffic incidents. The Coordination Working Group allows interested parties to coordinate their respective activities to minimize overlap of initiatives and pool resources.

2.2.3 Products

A strategic plan outlines function needs, system requirements, security requirements, information priorities, implementation strategy, and a long-term business plan to address ongoing operations and maintenance. Memorandums of understanding have been developed with each participating agency for the maintenance and long-term requirements of the network.

2.2.4 Resources

The participating public safety and transportation agencies are interested in developing partnerships to share limited resources and improve safety for their customers. CapWIN creates guidelines and standards in public safety and transportation communication systems, so that agencies' systems are compatible with one another (thus saving the agencies from costly, incompatible technologies). These improved systems are seen as a return on investment of time and resources.

2.2.5 Performance Improvement

The integrated wireless network allows transportation agencies to communicate directly and share real-time and historical information, which improves system performance. Collected data is put into an accessible, readily understandable format that can be utilized regardless of location in national, state, or local databases.

2.3 Transportation Operations Coordinating Committee (TRANSCOM)

TRANSCOM was created in 1986 as a regional coordination effort for construction projects in New York, New Jersey, and Connecticut. Since then, its role has expanded to include the distribution of traffic and incident information and the management of regional ITS programs. The intent of TRANSCOM is to enable the collaboration of multiple planning and operating agencies to improve transportation throughout these states. The agencies share traffic, incident management, and construction information through the use of sophisticated software. The communication among the agencies helped coordinate the management of the transportation system on September 11, 2001.

2.3.1 Structure

TRANSCOM was formed by the region's transportation leaders. Its 16 member agencies, which include State and City Departments of Transportation, toll authorities, transit authorities, and the State police, are champions for regional collaboration and better system performance. TRANSCOM also has relationships with more than 100 additional entities, including local governments, police, fire, emergency services, and planning organizations. Both planners and operators participate in TRANSCOM's activities, thereby creating a shared vision for the region's transportation system.

2.3.2 Processes

TRANSCOM was formed as a means to collectively address traffic, incident management, and construction issues, and to determine collaborative, multimodal approaches to solving the region's transportation problems.

2.3.3 Products

TRANSCOM maintains planning documents such as a multiyear strategic plan, an annual business plan and budget, information and communication systems plan, and a technology programs development plan.

2.3.4 Resources

TRANSCOM utilizes the resources of multiple agencies to collect and disseminate incident and event information. TRANSCOM's agencies collaborate to bring transportation funding into the region. Agencies would not be willing to participate in TRANSCOM if they did not see a return on investment of their time and resources.

2.3.5 Performance Improvement

TRANSCOM does not currently have performance standards, but it acknowledges the need for them and expects to develop them in the future. TRANSCOM's operations depend on real time and archived data shared among the involved agencies. The Operations Information Center collects and disseminates real-time incident and construction information to members and affiliated agencies 24 hours a day, and maintains a database of construction projects.

2.4 Southern California ITS Priority Corridor

Southern California has suffered through severe congestion and extreme air pollution over the past several years. Due to its federal air quality non-attainment status, no major expansions are planned for the region's freeway network. In addition, there are no increases expected in transit operations. Because of this, local officials have turned to operations-based solutions to manage the region's transportation network. As one of the Nation's four designated ITS Priority Corridors, the Southern California region receives Federal funds for ITS strategic planning and deployment. The ITS Priority Corridor Steering Committee, a partnership of 16 public entities, was formed to oversee the program, which allows:

- Multi-jurisdictional collaboration of multiple MPOs and state and local transportation agencies,
- Stakeholder participation,
- Movement from a major planning to an operations initiative,
- Integration of extensive ITS infrastructure, enabling traffic management centers to share data and traffic operations control, and
- Regional traveler information, which is of great value to the region's motorists.

As a result of the strategic planning and design by the Priority Corridor Steering Committee, an intermodal transportation management and information system will be implemented that allows for the integration of existing and future transportation management systems. This system will continuously evolve to fit with future transportation management initiatives.

2.4.1 Structure

Members of the ITS Priority Corridor Steering Committee include Caltrans (the State Department of Transportation), the California Highway Patrol, six county transportation authorities/commissions, two MPOs, one air quality management district, and three regional ITS strategic planning subcommittees. Additional participants include the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and local transportation agencies. Because the Priority Corridor decision making

process was conducted outside the bounds of traditional transportation funding processes, the participants have had to work hard to sustain political buy-in and acquire champions for their programs.

The operators and planners on the Steering Committee share a common vision for the improvement of Southern California's transportation system through integrated ITS systems, and they have agreed to expand the scope of the program to include all modes and all roads from Los Angeles to the Mexican border. The Priority Corridor has fostered new relationships among planners and operators, and promotes a common understanding of each other's missions that has resulted in the movement of the regional initiative from major planning to operations.

2.4.2 Processes

The Priority Corridor integrates traveler information from several sources, and therefore is a valuable resource for travelers. The network also links the four Caltrans TMCs, thereby enabling contingency control during emergencies so that one TMC can take control for another if needed. The Priority Corridor Committee assesses the value of ITS projects on a regional or corridor-wide basis.

2.4.3 Products

The Priority Corridor is characterized by decentralized information-sharing and an open system architecture that supports technical information-sharing and the integration of different systems. The agencies that operate the transportation systems in Southern California acknowledge the concept of operations. The concept of operations creates the strategy to "develop once, deploy many times," thereby allowing for cost sharing among the agencies.

2.4.4 Resources

All groups involved in the Priority Corridor see a return on investment of their time and resources because they are now able to access each other's data, share the costs of system upgrades and new technology applications, and communicate better among planners and operators. Funding has been made possible through Federal grants, which continued through 2002.

2.4.5 Performance Improvement

The integration of the various agencies' ITS infrastructures in the Priority Corridor enables data to be shared, linked, and made accessible to operators and planners throughout the region.

2.5 Summary of TMCs in the United States

Most major cities with a metropolitan population of over 3 million people have a TMC to monitor congestion. Table 7 below gives examples of TMCs in major metropolitan areas in the United States. The CUTS metropolitan area has a significantly lower population than these example cities; therefore, the costs associated with a TMC for CUTS would be lower, and the center would likely not require as much equipment and infrastructure.

Table 7. Summary of TMC Costs

TMC Location	Program Name	Capital Cost ($)	Size of TMC	Metro Population[7]	TMC Service Area	Cameras	Message Signs
Houston, TX	TransStar	$11.5 Million, TMC Only	52,000 sq ft	5,539,949	5,436 square mi.	600	63
Los Angeles, CA	LARTMC	$46 Million	13,400 sq ft	12,950,119	1,188 freeway mi.	350	109
Seattle, WA	ETMC	Not Available	Not Available	3,263,497	71 centerline mi.	120	N/A
Atlanta, GA	NAVIGATOR-ATMS	$14 Million, TMC Only $140 Million, Total Project	73,500 sq ft	5,138,233	480 mi.	574	101
Ft. Lauderdale, FL	SMART SunGuide	$36 Million	42,000 sq ft	5,463,857	N/A	145	72
Charleston, SC	No Name	$300,000, TCC Only	Not Available	603,178	Not Available		
Clayton Co, GA	No Name	$4.5 Million	1,500 sq ft	271,240[2]	143 square mi.	56	3, other signs by GDOT

Source: TransStar, LARTMC, ETMC, Georgia Navigator, SMART Sun Guide

3.0 Operations Equipment

This section presents images of operations equipment commonly employed in Transportation Management Centers. The equipment pictured is recognized throughout the industry as standard.

A closed-circuit television (CCTV) camera (Figure 6) provides comprehensive coverage of the roadway and allows the TMC to monitor this section of road at all times. An example of a CCTV camera is shown below.

[7] *Metropolitan Population includes areas beyond the incorporated city of the TMC location.*
[2] *Clayton is the 3rd smallest county in Georgia, but the 5th most populous county.*

Figure 5. Closed-Circuit Television Camera

Source: Minnesota Department of Transportation

A ramp meter (Figure 7) is a traffic signal placed at a freeway on-ramp to regulate the flow of traffic on the freeway. These are typically installed to alleviate bottlenecks at freeway entrances due to queuing traffic, and can also have the effect of causing motorists to choose alternate routes (thereby reducing congestion on the freeway.

Figure 6. Ramp Meter

Source: Arizona Department of Transportation

A changeable message (Figures 7 and 8) sign is installed on limited-access highways or major arterial to provide real-time information to motorists. These are typically managed by the TMC. The information displayed may include travel times, notification of traffic incidents, alternate routes recommended, or public service messages issued by law enforcement.

Figure 7. Changeable Message Sign (I)

Source: Metropolitan Transportation Commission, San Francisco, CA

Figure 8. Changeable Message Sign (II)

Source: Ontario Provincial Police

A Video Detection System (VDS, Figure 9) is similar to a CCTV camera system, but has more advanced capabilities. A VDS can detect the speed of vehicles, number of vehicles, and similar measures. This information is fed back to the TMC, which can then use the data to calculate travel times and congestion levels on the roadway.

Figure 9. Video Detection System

Source: Evaluation of Work Zone Speed Advisory System.[8]

The images below in Figures 10 and 11 are examples of TMC facilities. Depending on the scale of the TMC, the equipment and infrastructure of a TMC may occupy an entire building or just one room. Common components of a TMC facility include a series of screens for display of information or camera images and work stations for operators.

Figure 10. Inside a TMC Facility (I)

Source: Multi-Media Solutions for CalTrans

[8] *http://www.itsdocs.fhwa.dot.gov/JPODOCS/REPTS_TE/14057.htm*

Figure 11. Inside a TMC Facility (II)

Source: Suburban Emergency Management Project

A call box houses a telephone that motorists can use to contact emergency services during a vehicle break-down or incident. These calls may be routed through the TMC. The provision of call boxes allows authorities to respond to incidents more quickly, which also hastens the normal flow of traffic. Figure 12 below shows a typical roadside callbox.

Figure 12. Callbox

Source: FHWA