CONFORMITY DETERMINATION REPORT

For the Rome – Floyd County
Metropolitan Planning Organization 2016
Long Range Transportation Plan for 2040

APRIL 26, 2016

THIS REPORT HAS BEEN PRODUCED BY THE ROME – FLOYD COUNTY METROPOLITAN PLANNING ORGANIZATION (MPO) IN CONJUNCTION WITH FEDERAL HIGHWAY ADMINISTRATION (FHWA), ENVIRONMENTAL PROTECTION AGENCY (EPA), FEDERAL TRANSIT ADMINISTRATION (FTA), GEORGIA DEPARTMENT OF TRANSPORTATION (GDOT), AND GEORGIA ENVIRONMENTAL PROTECTION DIVISION (GA EPD)

Resolutions

RESOLUTION

for

CONFORMITY DETERMINATION REPORT

WHEREAS, the Fixing America's Surface Transportation (FAST) Act requires that the Rome-Floyd County Metropolitan Planning Organization (MPO)have a current Long Range Transportation Plan; and

WHEREAS, In November 1990 the United States Congress adopted the comprehensive Clean Air Act Amendments which placed an increased emphasis on the control of mobile source air pollution; and

WHEREAS, On December 17, 2004, the United States Environmental Protection Agency (EPA) designated Floyd County as nonattainment under the fine particulate (PM2.5) air quality standard with the effective date of designation of April 5, 2005; and on May 14, 2014 re-designated Floyd County to attainment for the fine particulate (PM2.5) air quality standard and approved the associated maintenance plan and motor vehicle emission budgets (MVEBs) for NOx and PM2.5 for the year 2023, with the effective date of June 12, 2014.; and

WHEREAS, As a result of the air quality designations, the MPO is required to prepare an air quality conformity determination analysis, based on the fine particulate matter standard (PM2.5), for its 2016 Long Range Transportation Plan and any subsequent revisions, updates, and Transportation Improvement Programs that follow; and

WHEREAS, Section 174 and Section 108(e) of the 1990 Clean Air Act amendments require that preparation of the State Implementation Plan revisions and related transportation — air quality planning activities be accomplished through intergovernmental agency consultation and coordinated with the continuing, cooperative, and comprehensive transportation planning process; and

WHEREAS, Transportation planning - air quality evaluations have been performed and interagency consultations have taken place to ensure that the 2016 Long Range Transportation Plan for 2040 and the April 2016 Amended 2014-2017 Transportation Improvement Program comply with the Transportation Conformity Regulations, EPA guidelines, and associated guidance for fine particulate matter nonattainment areas; and

WHEREAS, The Conformity Determination Report (as revised) quantitatively documents that the 2016 Long Range Transportation Plan for 2040 and the April 2016 Amended 2014-2017 Transportation Improvement Program satisfy the requirements for the "no greater than 2002 base year test" outlined in 40 CFR Part 93.119 and addresses applicable guidance; and

WHEREAS, Time for public review and comment has been given for this document as required by federal regulations; and

WHEREAS, The Technical Coordinating Committee, has reviewed the Revised Conformity Determination Report and concurs with the findings in the report; and

WHEREAS, The Technical Coordinating Committee recommended that the Transportation Policy Committee adopt the 2016 Conformity Determination Report.

NOW, THEREFORE, BE IT RESOLVED, that the 2016 Conformity Determination Report for the Floyd-Rome Urban Transportation Study is hereby adopted by the Transportation Policy Committee; and

BE IT FURTHER RESOLVED, that the Transportation Policy Committee finds that the conformity analysis for the MPO's 2016 Long Range Transportation Plan for 2040 and the April 2016 Amended 2014-2017 Transportation Improvement Program meet all applicable Transportation Conformity guidance allowing for a positive conformity for fine particulate matter; and

BE IT FURTHER RESOLVED, that the Transportation Policy Committee, the forum for cooperative transportation decision-making by locally elected officials in the area, does hereby approve and make a positive Transportation Conformity finding for the Air Quality Conformity Determination for the 2016 Long Range Transportation Plan for 2040 and the April 2016 Amended 2014-2017 Transportation Improvement Program; and

BE IT FURTHER RESOLVED, that copies of this resolution and referenced documents will be forwarded to the Environmental Protection Agency for comment and the Federal Highway and Transit Administrations for review and subsequent approval.

Adopted by the Rome – Floyd County Transportation Policy Committee.

Bill Irmscher 04/18/2016

Bill Irmscher — Date

Rome City Commissioner and Chair,

Transportation Policy Committee

RESOLUTION

Adopting Rome-Floyd County 2016 Long Range Transportation Plan for 2040; in accordance with the Fixing America's Surface Transportation (FAST) Act and regulations regarding the adoption of transportation plans of federally recognized Metropolitan Planning Organizations (MPOs)

Whereas, FAST, passed in 2015 provided funding for transportation projects and continued the requirements of MAP-21; and

Whereas, the Federal Highway Administration and Federal Transit Administration published a final Rule in 2014 to reflect the changes brought forth as a result of the passage of MAP-21 and its predecessor, the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU) governing the statewide and metropolitan transportation planning process; and

Whereas, the Rome-Floyd County Metropolitan Planning Organization (MPO) has prepared the 2016 Long Range Transportation Plan for 2040 using the applicable MAP-21 and FAST standards; and

Whereas, a public comment period seeking public input to the 2016 Long Range Transportation Plan for 2040 was met according to federal regulations;

NOW, therefore, the Transportation Policy Committee (TPC) of the Rome-Floyd County Metropolitan Planning Organization (MPO) does hereby approve and adopt the 2016 Long Range Transportation Plan for 2040.

Bill Irmscher

Bill Irmscher, City Commissioner and
Chair, Transportation Policy Committee

04/18/2016

Date

RESOLUTION TO AMEND

2014-2017 TRANSPORTATION IMPROVEMENT PLAN

WHEREAS, federal regulations for metropolitan transportation planning require that the Metropolitan Planning Organization, in cooperation with State and Federal Agencies and with operators of publicly owned transit services, develop a planning process which results in a Long-Range Transportation Plan, a Transportation Improvement Program, and a Unified Planning Work Program; and

WHEREAS, the Rome-Floyd County Planning Department is the Metropolitan Planning Organization for the Rome Urbanized Area and the funding recipient for transportation planning; and

WHEREAS, the urban transportation planning regulations require that the Transportation Improvement Program be a product of a planning process certified as in conformance with all applicable requirements of law and regulation; and

WHEREAS, the Rome-Floyd County Metropolitan Planning Organization Transportation Policy Committee adopted the 2014-2017 Transportation Improvement Program in August of 2013; and

WHEREAS, addition of an exempt project and amendments to funding for non-exempt highway projects must be reflected in the adopted 2014-2017 Transportation Improvement Program by means of an Amendment ; and

WHEREAS, the locally developed and adopted process for private sector participation has been followed in the development of said amendment; and

WHEREAS, the requirements of applicable law and regulation regarding urban transportation planning have been met

NOW, THEREFORE BE IT RESOLVED that the Rome-Floyd County Metropolitan Planning Organization Transportation Policy Committee adopts the April 2016 Amended 2014-2017 Transportation Improvement Program as set forth in the document attached to this resolution.

Bill Irmscher 04/18/2016

Bill Irmscher, City Commissioner and Chair, Transportation Policy Committee — Date

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1: Overview

1.1 Introduction

The transportation planning process is mandated by federal legislation contained within the 2015 Fixing America's Surface Transportation (FAST) Act. The Federal Surface Transportation Assistance Act of 1973 first required the formation of a Metropolitan Planning Organization. The specific language that deals with the Metropolitan Planning Organization (MPO) is found in the United States Code, Title 23, Section 134, which states that all areas classified as Urbanized Areas (UA) by the U.S. Census Department must participate in transportation planning.

The classification as an Urbanized Area means that the municipality and its surrounding metropolitan area have reached a population of 50,000 or greater. According to the legislation, the area must then designate or create an organization to become the UA's Metropolitan Planning Organization (MPO). The MPO is specifically charged with implementing and carrying out the duties required of the UA by federal law. The MPO must consist of all of the UA, but may encompass the surrounding areas that are expected to reach urbanized status within the next 20 years, or that area that is, by designation, the Metropolitan Statistical Area (MSA). The Rome – Floyd County MPO has consisted of the entire county since 2003; the boundaries of which also define the MSA and attainment/maintenance area.

The Rome-Floyd County Metropolitan Planning Organization's 2016 Long Range Transportation Plan (LRTP) for 2040, and subsequent Transportation Improvement Programs (TIP) are the major elements of the transportation planning process and fall within the attainment/maintenance conformity requirements of the Clean Air Act. The 2016 LRTP for 2040 was adopted in April of 2016, and demonstrates conformity to the 1997 annual PM2.5 Standards, as documented within this 2016 Conformity Determination Report (CDR). The United States Department of Transportation (USDOT) issued the conformity determination finding for the 2016 LRTP for 2040 on April XX, 2016.

The purpose of the 2016 Conformity Determination Report for Rome – Floyd County is to document that the Rome-Floyd County 2016 LRTP for 2040 complies with the relevant elements of the Clean Air Act, the Transportation Conformity Rule (40 CFR Parts 51 and 93) and the Metropolitan Planning Regulations (23 CFR Part 450).

1.2 Transportation Conformity

The Clean Air Act requires the United States Environmental Protection Agency (USEPA) to set limits on how much of a particular pollutant can be in the air anywhere in the United States. USEPA has defined the allowable concentrations of pollution in the air for six different pollutants – Carbon Monoxide, Lead, Nitrogen Dioxide, Particulate Matter, Ozone and Sulfur Dioxide. These limits are the National Ambient Air Quality Standards (NAAQS).

The Clean Air Act specifies how areas within the country are designated as either "attainment", "non-attainment", or "attainment/maintenance" of an air quality standard, and provides USEPA the authority to define the boundaries of those areas. For areas designated as non-attainment for one or more of the National Ambient Air Quality Standards (NAAQS) listed above, the Clean Air Act defines a specific timetable to attain the standard. Each state must develop and submit a State Implementation Plan (SIP) that addresses how the state will reduce the pollutant(s) for which it fails to meet the NAAQS. SIP requirements vary according to pollutant type and classification (severity of pollution). For some pollutants (e.g., ozone), the Clean Air Act uses a classification system to tailor air quality planning requirements to the severity of the pollution and sets deadlines for attaining the air quality standards. In Georgia, the Georgia Environmental Protection Division (GA EPD) is responsible for the development of the SIP and for defining the regional plans to reduce air pollution emissions in areas of Georgia that violate the NAAQS.

There is a direct link between air quality and transportation. Transportation Conformity is a process of ensuring that transportation planning contributes to the attainment of NAAQS. Therefore, to receive federal transportation project funds, the Rome-Floyd County MPO must demonstrate that the 2016 LRTP for 2040 contributes to the attainment of air quality goals listed in the SIP.

Depending on the pollutant the area is in violation of the NAAQS for, the MVEB sets the maximum amount of emissions such as NOx, VOC, Particulate Matter and/or Carbon Monoxide (CO) that can be emitted due to on-road mobile sources. Each attainment/maintenance area must prepare a Conformity Determination Report to indicate which emissions may result from the existing transportation system, and from any proposed improvements; and, using the MVEB, determine whether the emissions are within the limits of the SIP.

On December 17, 2004, the United States Environmental Protection Agency (EPA) designated Floyd County as nonattainment under the fine particulate (PM2.5) air quality standard. The effective date of designation was April 5, 2005. On May 14, 2014 the EPA re-designated Floyd County to attainment for the fine particulate (PM2.5) air quality standard and approved the associated maintenance plan and motor vehicle emission budgets (MVEBs) for NOx and PM2.5 for the year 2023. The effective date of this re-designation was June 12, 2014.

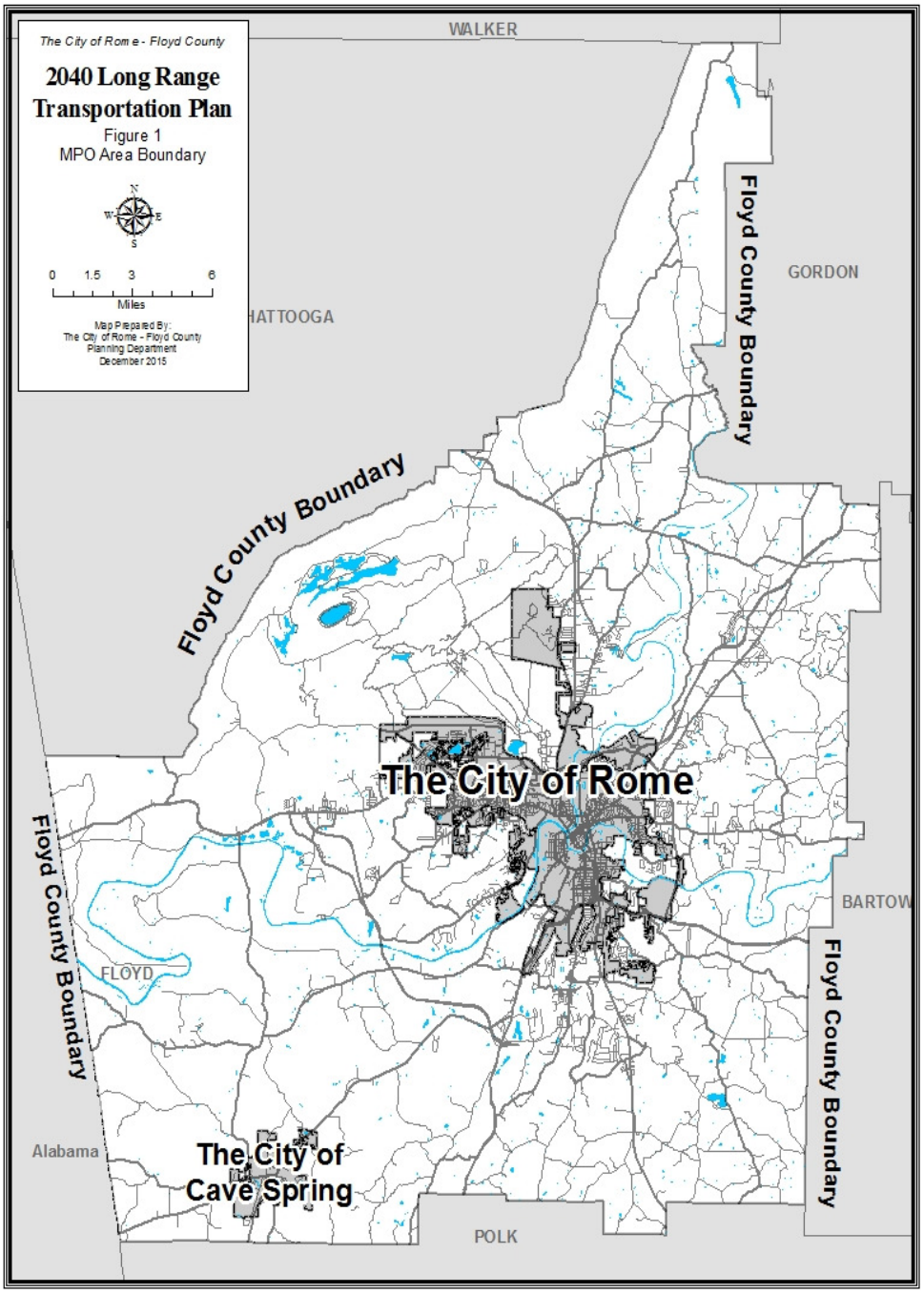
The determination of attainment/maintenance initiated two 10-year periods when attainment must be maintained; and after which it is assumed that attainment will continue. During that time, each LRTP process must include a determination of conformity. The Rome-Floyd County MPO has completed a conformity analysis under the PM2.5 standard for their 2016 LRTP for 2040 and subsequent Transportation Improvement Programs (TIP), based on the air quality budget approved in 2014.

1.3 Planning Boundaries

As the designated Metropolitan Planning Organization (MPO) for the Rome-Floyd County Urbanized Area, the Rome-Floyd County Planning Department is responsible for the continuing, cooperative, and comprehensive metropolitan planning process required by Title 23 U.S.C. 134. Based on the 2010 Census, the Rome-Floyd County urbanized area boundary includes all of the City of Rome plus an area of Floyd County immediately surrounding the city. However, the Rome-Floyd County MPO planning area and attainment/maintenance boundaries have included all of Floyd County since 2003. Figure 1.1-1 illustrates the boundaries.

The MPO is responsible for developing a Long Range Transportation Plan (LRTP) and short-range Transportation Improvement Program (TIP) for the area within its planning boundary. The LRTP and TIP deal directly with the transportation planning activities within the Rome – Floyd County planning area. The conformity analysis documented in this report is for the Rome-Floyd County attainment/maintenance area. The development of the LRTP is documented in the 2016 Long Range Transportation Plan for 2040, while the development of the TIP is documented in the April 2016 Amended FY 2014 – FY 2017 Transportation Improvement Program.

Figure 1 Rome-Floyd County MPO and Attainment/maintenance Area



Chapter 2: Statement of Conformity

2.1 Statement of Conformity

On December 17, 2004, the United States Environmental Protection Agency (EPA) designated Floyd County as nonattainment under the fine particulate (PM2.5) air quality standard. The effective date of designation was April 5, 2005. On May 14, 2014 the EPA re-designated Floyd County to attainment for the fine particulate (PM2.5) air quality standard and approved the associated maintenance plan and motor vehicle emission budgets (MVEBs) for NOx and PM2.5 for the year 2023[1]. The effective date of this re-designation was June 12, 2014.[2] The Rome-Floyd County MPO completed a conformity analysis under the PM2.5 standard for their new 2040 Long Range Transportation Plan (LRTP) and the April 2016 Amended 2014-2017 Transportation Improvement Program (TIP).

A detailed listing of the procedures and planning assumptions for the conformity analysis can be found in Appendix C: Rome-Floyd County Interagency Summary of Planning Assumptions Used in Regional Emissions Analysis. The Summary was submitted for Interagency Consultation (IAC) in accordance with Section 93.105(c)(1)(i) of the Transportation Conformity Rule which requires interagency review of the model(s) and associated methods and assumptions used in the regional emissions analysis. All assumptions apply to both the LRTP and all subsequent TIPS.

Since motor vehicle emission budgets have been set, it was decided through interagency consultation that the conformity test would be to compare emissions from 2023, 2030, and 2040 to motor vehicle emissions budgets for 2023 to ensure that each year's emissions are less than the budgets. The analysis years selected for the test meet the requirements for specific horizon years that the transportation plan must reflect as specified in Section 93.106 of the Transportation Conformity Rule and specific analysis years that the regional emissions analysis must reflect per Section 93.118. See Appendix C for full planning assumptions including the conformity test, analysis years, and qualitative finding "that there are no factors which would cause or contribute to a new violation in the years before the last year of the maintenance plan," as required by Section 93.118(b)(2)(i).

The results of the 2016 LRTP for all analysis years for the Rome $PM_{2.5}$ attainment/maintenance area demonstrate that the emissions for each analysis year are no greater than the 2023 motor vehicle emissions budgets (MVEBs). Based upon the technical conformity analysis, it has been determined that the 2016 LRTP for 2040 demonstrates compliance with the Clean Air Act as amended in 1990, in accordance with all the conformity requirements detailed in 40 CFR Parts 51 and 93 (the Transportation Conformity Rule) and 23 CFR Part 450 (the Metropolitan

[1] Approved 2023 MVEBs were 994.4 tpy NOx; and 38.0 tpy PM2.5.
[2] https://www.federalregister.gov/articles/2014/05/14/2014-10960/approval-and-promulgation-of-implementation-plans-and-designation-of-areas-for-air-quality-planning

Planning Regulations as established in SAFETEA-LU). The 2014-2017 TIP was prepared and adopted under the 2012 LRTP for 2040. The April 2016 Amended 2014-2017 TIP will be the first to be prepared under the 2016 LRTP for 2040. As a subset of the 2016 LRTP for 2040, the April 2016 Amended 2014-2017 TIP and any subsequent TIPs will be financially constrained and in conformance with air quality regulations as listed above.

FHWA developed a checklist entitled "Demonstration Requirements for Transportation Conformity of Metropolitan Long-Range Plans," shown in Appendix A. This checklist is a guide to assist both the MPO and FHWA in the preparation and review of the conformity determination report. The following sections are identified in this chapter and in other documents that contain the required information to address the itemized checklist.

Chapter 3: Interagency Consultation

3.1 Overview

According to 40 CFR Part 51, Subpart T, section 51.390, the "federal conformity rules...establish the conformity criteria and procedures necessary to meet the requirements of the Clean Air Act section 176(c) until such time as EPA approves the conformity implementation plan revision required by this subpart... Following EPA approval of the state conformity provisions (or a portion thereof) in a revision to the state's conformity implementation plan, conformity determinations will be governed by the approved (or approved portion of the) state criteria and procedures as well as any applicable portions of the federal conformity rules that are not addressed by the approved conformity SIP."

The interagency consultation requirements of the federal transportation conformity rule, at 40 CFR Part 93.105, which are by necessity fairly general, were in effect for this conformity determination. As intended by the federal rule, specifics of the consultation process were worked out in consultation with planning partners.

3.2 Composition of the Interagency Consultation Group

The interagency consultation group consisted of representatives from various state, federal and local agencies listed below:

- Rome-Floyd County Planning Department (MPO)
- Rome Transit Department (RTD)
- Georgia Department of Transportation (GDOT)
- Georgia Environmental Protection Division (GA EPD)
- Federal Highway Administration (FHWA)
- Federal Transit Administration (FTA)
- Environmental Protection Agency – Region 4 (EPA)

As the designated MPO for the Rome urbanized area, the Rome-Floyd Metropolitan Planning Organization (herein after, the MPO) is responsible for the continuing, cooperative, and comprehensive metropolitan planning process required by Title 23 U.S.C. 134. The MPO is also responsible for preparation of the LRTP and the TIP documents that conform to the air quality requirements of the Clean Air Act. GDOT is authorized by Georgia Code to organize, administer, and operate an efficient, modern system of public roads and other modes of transportation including public transit, rail, aviation, ports, and bicycle and pedestrian facilities. GDOT is responsible for managing the state's transportation planning program including coordinating with urban areas throughout the state on their transportation plans and projects and conducting planning studies in rural areas.

Representatives from several different departments of GDOT such as transit, intermodal and planning are invited to participate in the consultation group. The RTD is responsible for providing transit service for Rome. RTD is the designated recipient for Federal Transit Administration (FTA) funds for the Rome area.

GA EPD is responsible for the development of the SIP and for defining the regional plans to reduce air pollution emissions in Georgia areas that violate the NAAQS. The MPO and USDOT (FHWA and FTA collectively) have the responsibility to ensure that the transportation plan and program within the metropolitan planning boundaries conform to the requirements of the Clean Air Act. In metropolitan areas, the policy board of each MPO must formally make a conformity determination on its transportation plan and TIP prior to submitting them to the USDOT for an independent review. USDOT must approve the conformity determination, in consultation with USEPA, before the TIP and LRTP are considered complete.

The interagency consultation group met on a regular basis to address the transportation and air quality issues in the MPO attainment/maintenance area. MPO staff coordinated its activities for this conformity analysis with the interagency consultation group and provided regular briefings to the Citizen Advisory Committee, the Transportation Coordinating Committee (TCC), and the Policy Committee during the development of the 2016 LRTP for 2040 and the April 2016 Amended 2014-2017 TIP . A summary of the interagency meetings is listed in Appendix B. Draft documents were distributed to the MPO's committees, planning partners and general public in February through March 2016 in order to allow for time to comment prior to formal adoption or publication in accordance with 93.105(b)(2)(iii) of the Transportation Conformity Rule. Public outreach and involvement activities were conducted during the development of the plan which is documented in the 2016 LRTP for 2040.

3.3 Emissions Analysis – Models and Assumptions

Section 93.105(c)(1)(i) of the Transportation Conformity Rule requires an interagency process for evaluating and choosing a model and associated methods and assumptions to be used in

the regional emissions analyses. MOVES2010b was chosen as the vehicle emissions model through the interagency process. This vehicle emissions model choice and associated methods and assumptions are listed in the procedures and planning assumptions used for the conformity analysis of the 2040 LRTP, which can be found in Appendix C, "Rome-Floyd County Interagency Summary of Planning Assumptions Used in Regional Emissions Analysis." This document was distributed to the interagency consultation committee for review and consensus.

GA EPD assisted with the development of the MOVES input files that specify all federally mandated motor vehicle emission control programs. In addition, the input files were customized to reflect the specific weather conditions, fuel parameters, and vehicle registration data for the Rome-Floyd County attainment/maintenance area.

MOVES input and output files are available electronically from the Rome-Floyd County Metropolitan Planning Organization staff upon request.

3.4 Identification of Regionally Significant Projects and Exempt Projects

The regional emissions analysis required for the transportation plan and TIP must include emissions from the entire transportation system, including all projects that are designated as "regionally significant," regardless of the funding source. The federal transportation conformity rule requires that, at a minimum, all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel be explicitly modeled in a metropolitan area's transportation network. Section 93.105(c)(ii) of the Transportation Conformity Rule requires an interagency consultation process to determine which projects, other than those meeting the minimum criteria, should be considered regionally significant for the purposes of regional emissions analysis. It has been determined through interagency consultation that, in accordance with current and previous transportation and emissions modeling practice in Georgia, link-level regional emissions analyses will be performed and will include every link in the travel demand model. For conformity purposes other than regional emissions analysis, MPO staff reviewed the roadway system in the attainment/maintenance area to identify minor arterials which are regional in function. Based on this review and analysis the facilities identified in Appendix D were defined as Regionally Significant Facilities. This system contains the following:

1. 100% of the principal arterials identified on the network;
2. Supporting facilities (i.e. minor arterials) that improve regional connectivity and access to major activity centers;
3. Facilities that serve an important regional purpose, and
4. The above (1-3) facilities are resident in the network (i.e., model) for the FRUTS Study Area.

FRUTS staff prepared a detailed technical memorandum on the definition of Regionally Significant Facilities for the 2012 Conformity Determination Report that was distributed to the Interagency Consultation Committee for review. There was consensus by the Interagency

Consultation Committee that the Regionally Significant Facilities outlined in the Memo detailed in Appendix D would be used in the development of the 2016 LRTP for 2040, the 2016 CDR, and any TIP's that are considered to be subsets. Projects that would be considered to be Regionally Significant are listed below, in Table 1.

Section 93.105 (c)(1)(iii) of the Transportation Conformity Rule provides for an evaluation of whether or not projects otherwise exempt should be treated as non-exempt in cases where projects may have adverse impact on emissions. Exempt projects are those considered to be neutral with respect to the impact on air quality.

The projects in the 2016 LRTP for 2040 that are considered exempt were determined by the interagency consultation process. The complete listing of the projects is included below in Table 1. Projects were also reviewed as a part of the 2016 LRTP for 2040 mobility process to ensure the transportation needs of the MPO are still being met.

TABLE 1 Projects of Regional Significance and Exempt Projects

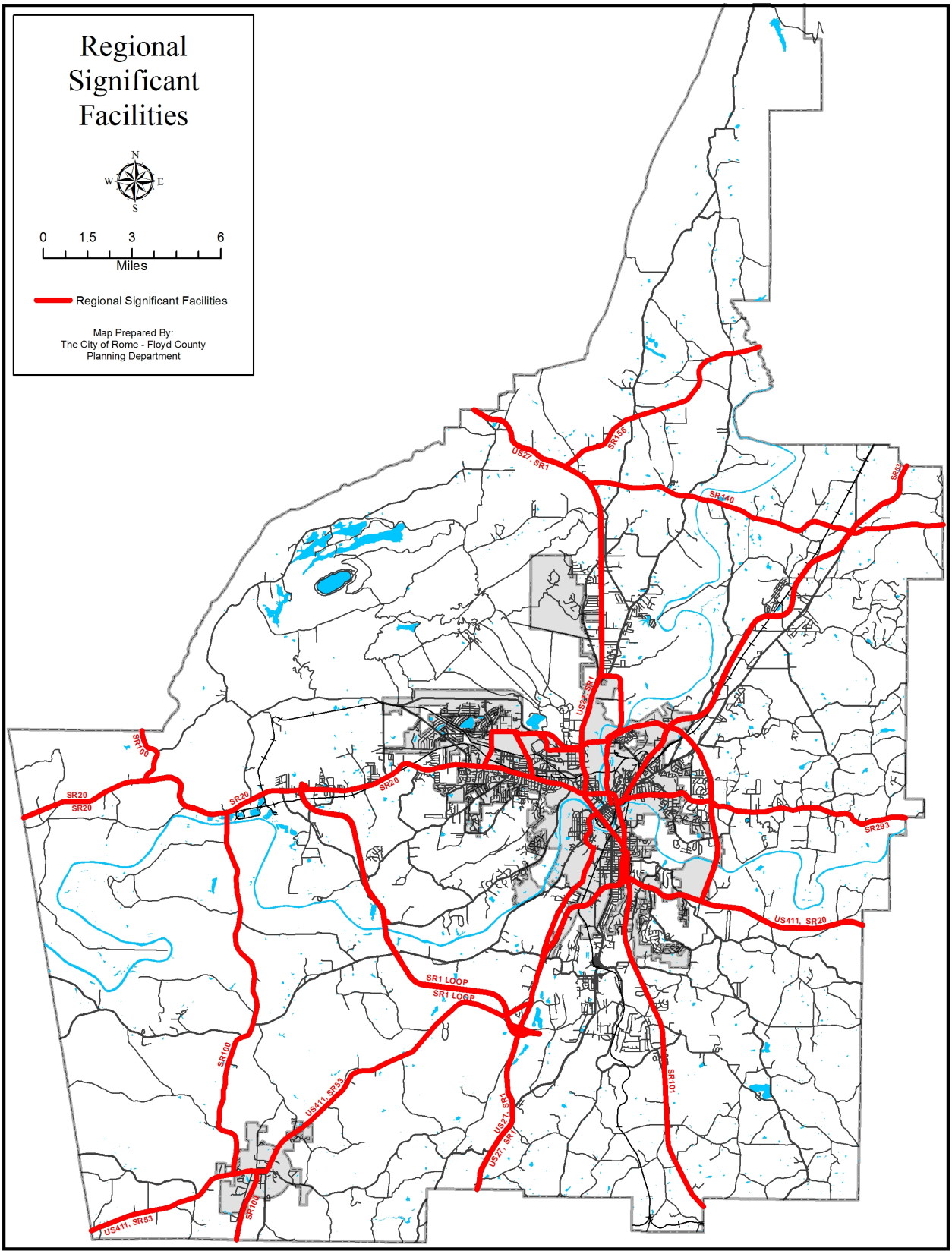
PI#	Project	From	To	Phase	Projected YOE	Regional Significance	Exempt Status
621600	South Rome Bypass	SR101/Rockmart Road	SR1/US27 at Booze Mountain Road	UTL	2017	Yes	Non-exempt
621600	South Rome Bypass	SR101/Rockmart Road	SR1/US27 at Booze Mountain Road	CST	2017	Yes	Non-exempt
0013718	SR1/SR20/SR27 @Etowah River & NS#719103R			PE	2016	Yes	Exempt
0013718	SR1/SR20/SR27 @Etowah River & NS#719103R			ROW	2018	Yes	Exempt
0013718	SR1/SR20/SR27 @Etowah River & NS#719103R			CST	2020	Yes	Exempt
0013937	SR1/US27 @Big Dry Creek			PE	2017	Yes	Exempt
0013937	SR1/US27 @Big Dry Creek			ROW	2019	Yes	Exempt
0013937	SR1/US27 @Big Dry Creek			CST	2020	Yes	Exempt
632760	SR101 Interchange	SR 1/ SR 20 / SR 53 / US 411	-	ROW	2017	Yes	Non-exempt
650540	SR1/SR101	West 3rd Street	SR1/SR20	UTL	2017	No	Exempt
650540	SR1/SR101	West 3rd Street	SR1/SR20	CST	2017	No	Exempt
662420	Southeast Rome Bypass	SR101 NE	US411	UTL	2018	Yes	Non-exempt

662420	Southeast Rome Bypass	SR101 NE	US411	CST	2018	Yes	Non-exempt
0007019	SR140/Turkey Mountain Widening	SR1/US27	SR53	PE	2023	Yes	Non-exempt
13533	SR101 Interchange			ROW	2017	Yes	Non-exempt
13533	SR101 Interchange			UTL		Yes	Non-exempt
-	Maintenance	-	-	-		N/A	Exempt
0000400	SR101 Widening	South Rome Bypass	CR740/McCord Road	ROW	2024	Yes	Non-exempt
0000400	SR101 Widening	South Rome Bypass	CR740/McCord Road	UTL	2026	Yes	Non-exempt
0000400	SR101 Widening	South Rome Bypass	CR740/McCord Road	CST	2026	Yes	Non-exempt
621690	SR101 Widening	CR 740/Saddle Trail	CR 335/Lombardy Way	UTL	2028	Yes	Non-exempt
621690	SR101 Widening	CR 740/Saddle Trail	CR 335/Lombardy Way	CST	2028	Yes	Non-exempt
632760	SR101 Interchange	SR 1/ SR 20 / SR 53 / US 411		UTL	2028	Yes	Non-exempt
632760	SR101 Interchange	SR 1/ SR 20 / SR 53 / US 411		CST	2028	Yes	Non-exempt
-	Maintenance	-	-	-		N/A	Exempt
0006019	SR 20 Widening	SR100	Alabama State line	PE	2040	Yes	Non-exempt
621740	Cave Spring West Bypass	SR100	SR53	PE	2037	Yes	Non-exempt
-	Maintenance	-	-	-		N/A	Exempt

3.5 Timely Implementation of TCMs

There are no Transportation Control Measures (TCMs) in the Rome-Floyd County attainment/maintenance area.

FIGURE 2 Regionally Significant Facilities



Chapter 4: Public Involvement

4.1 Introduction

The MPO's Public Involvement Plan was amended in 2014 and modified in October of 2015 (found at: ftp://ftp.romega.us/Planning/The2014ParticipationPlanAdminModOct15.pdf) is the determinant document in the approach of the MPO and its committees in seeking public input for their plans. The CDR is no exception. The Public Involvement Plan involved a 30 day comment period, and the review of each committee during its meetings, which were always open to the public. It was the intent of both the MPO and its committees that all interested parties be allowed to review and comment on the CDR before it became final. The MPO also has a Limited English Proficiency Plan (found at: ftp://ftp.romega.us/Planning/2013LEPPlan.pdf), and a Title VI Plan (found at: ftp://ftp.romega.us/Planning/GDOT%20Title%20VI%20Plan%20FINAL.pdf).

4.2 Public Comment Process

The 2016 CDR was distributed for comment upon the completion of the draft phase by the MPO and the Interagency Committee. It was during this phase in which the plan was compiled from the various meetings, studies, models, and reports the agencies had completed. The Public Involvement Plan calls for any plan requiring public comment to be disbursed to no fewer than five locations throughout the county. The plan must also be advertised in the local organ of the county, which it was, to alert the public that the comment period is approaching.

The five places of disbursement called for in the PIP are:

1. The Rome-Floyd Planning Department Offices, 607 Broad St., Rome, Ga.
2. The Floyd County Clerk's Office, 5 Government Plaza, Rome, Ga.
3. The Rome City Clerk's Office, 601 Broad St., Rome, Ga.
4. The Cave Spring Clerk's Office, 10 Georgia Ave., Cave Spring, Ga.
5. The Rome-Floyd Co. Library, 205 Riverside Drive, Rome, Ga.

Each location is supplied with a full copy of the draft document as approved by the Interagency Committee for a period of 37 days. Each document was supplied with additional pages, which were blank, in order that anyone who came in to view the document might have sufficient space to record their comments.

The committees of the MPO also reviewed the 2016 CDR, both during and after the comment period. The CAC and TCC made recommendations to the TPC which officially adopted the 2016 CDR for the MPO. However, this was only after calls for review from all parties that were involved, especially the public, and its representative committee, the CAC.

4.3 Public Comment Response

The Rome-Floyd County MPO is required, according to federal regulations, to compile any comments into an organized summary/report. However, there were no comments received by the MPO concerning the 2016 CDR, nor transcribed by the public on the documents out for review, therefore no such report has been generated.

4.4 Public Involvement Plan Evaluation

The Public Involvement Plan was reviewed and updated in 2014. As outlined in the PIP (ftp://ftp.romega.us/Planning/The2014ParticipationPlanAdminModOct15.pdf) this process will periodically be reviewed by the MPO and the Policy Committee in terms of its effectiveness in assuring that the process provides full and open access to all persons. According to the PIP, the evaluation occurs by, "following up with the established network and involved citizens for any suggestions on improvements." The PIP also states that, "…the public involvement process will be reviewed by FHWA and FTA during recertification of the FRUTS process to assure the process provides full and open access to the MPO decision making process."

Chapter 5: Financial Considerations

5.1 Projected Funds

The budget development process for the projects, programs and studies included in the 2016 LRTP for 2040 is summarized in Attachment 7 of the Long Range Transportation Plan for 2040. The estimated Federal-aid available for the Rome MPO during the life of the Plan were based on projections of the Office of Financial Management (OFM) from GDOT, historical trends and experience from previous years. The 2016 LRTP for 2040 forecasted that Federal and State monies will total approximately $233,754,611, with an additional $6,967,052 in local funds for transportation projects from 2016 through 2040. Projected funding is shown in Table 3.

TABLE 3 Projected Funding (2016-2040)

2016-2040 Rome Funding Projections *

Year	*Projects Estimate*	*Maintenance Estimate*	*Total Estimate*
2016	$19,049,069	$885,689	***$19,934,758***
2017	$7,959,880	$894,546	***$8,854,426***
2018	$8,039,479	$903,491	***$8,942,970***
2019	$8,119,874	$912,526	***$9,032,400***
2020	$8,201,072	$921,651	***$9,122,724***
2021	$8,283,083	$930,868	***$9,213,951***
2022	$8,365,914	$940,176	***$9,306,090***
2023	$8,449,573	$949,578	***$9,399,151***
2024	$8,534,069	$959,074	***$9,493,143***

2025	$8,619,409	$968,665	***$9,588,074***
2026	$8,705,603	$978,351	***$9,683,955***
2027	$8,792,660	$988,135	***$9,780,794***
2028	$8,880,586	$998,016	***$9,878,602***
2029	$8,969,392	$1,007,996	***$9,977,388***
2030	$9,059,086	$1,018,076	***$10,077,162***
2031	$9,149,677	$1,028,257	***$10,177,934***
2032	$9,241,174	$1,038,540	***$10,279,713***
2033	$9,333,585	$1,048,925	***$10,382,510***
2034	$9,426,921	$1,059,414	***$10,486,335***
2035	$9,521,190	$1,070,009	***$10,591,199***
2036	$9,616,402	$1,080,709	***$10,697,111***
2037	$9,712,566	$1,091,516	***$10,804,082***
2038	$9,809,692	$1,102,431	***$10,912,123***
2039	$9,907,789	$1,113,455	***$11,021,244***
2040	$10,006,867	$1,124,590	***$11,131,456***
total	***$233,754,611***	***$25,014,684***	***$258,769,295***

** Projection amounts are YOE $ - (1% inflation per year)*

5.2 Projected Project Costs

The estimated costs of the projects, programs and studies included in the 2016 LRTP for 2040 are shown in the Long Range Transportation Plan for 2040. Cost estimates were developed for both maintenance and capital improvements of roads and bridges.

Routine maintenance costs on the Federal and State road system were estimated by GDOT based on route miles by functional classification. These costs were extrapolated into an annual amount for the years 2016-2040 of $25,014,684. Estimates of future maintenance and repair costs for other facilities were calculated from trends using actual expense information. The total cost for the maintenance and capital improvements are listed in Table 3:

5.3 Financial Balancing

The project costs in the 2016 LRTP for 2040 were inflated to account for future inflation in accordance with SAFETEA-LU, MAP-21, and FAST. The MPO used a cost banding system in which low, mid and high ranges were calculated for the life of the 2016 LRTP for 2040. This process is explained in detail in the 2016 LRTP for 2040 and shown in Appendix G of this project. The summary below shows that projected funding exceeds projected project costs in the first two ranges, and projected project costs exceed projected funding only in the final, high range. Because it is unlikely that all projects would be constructed in the high-range, or even in the mid-range, the 2016 LRTP for 2040 is considered to be financially constrained because there are sufficient funds to implement the adopted 2016 LRTP for 2040. In any case, two LRTP updates will be undertaken

prior to the beginning of the mid-range, and three LRTP updates will be undertaken prior to the beginning of the high-range.

TABLE 4 Financial Balance Summary

SUMMARY								
		Low-Range		Mid-Range		High Range		
Projected State and Federal Revenue		$	233,754,611	$	233,754,611	$	233,754,611	
Projected Project Costs		$	231,592,284	$	233,612,784	$	235,633,285	
Difference		$	2,162,327	$	141,827	-$	1,878,674	

Based on Section 93.108 of the Transportation Conformity Rule and the Metropolitan Planning Regulation 23 CFR 460.324(e), the 2016 CDR confirms that the 2016 LRTP for 2040 is financially balanced.

Chapter 6: Latest Planning Assumptions

Section 93.110(a) of the Transportation Conformity Rule requires that conformity determinations must be based upon the most recent planning assumptions at the time conformity analysis begins. It also requires that the planning assumptions available at the time the conformity analysis begins be determined through the interagency consultation process. Planning assumptions that were agreed to by the Interagency Committee, and are applicable to the Rome-Floyd County area (Appendix C) include the estimates of current and future population, employment, travel and congestion. In addition the conformity determination for each transportation plan and TIP must include reasonable assumptions about transit service and increases in transit fares. The planning assumptions were agreed to by the Interagency Consultation Committee at the periodic meetings held by this group. See Appendix B for the notes from these meetings.

6.1 Socioeconomic Forecasts

Estimates of existing and future socio-economic data, such as population, households and employment, provide linkage between the land use and transportation planning activities. Estimates of population, households and several categories of employment are key variables used in estimating current travel demand and projecting future levels of travel demand and transportation deficiencies that may not exist at the present time. Levels of current and future travel demand are computed by the travel demand model which combines socioeconomic data forecasts, mathematical travel behavior data and transportation system networks.

Future year projections of socioeconomic data were based on region wide forecasts of population, households and employment. Along with an allocation model that was developed for the MPO as part of the land use plan, future year 2040 estimates of socio-economic data were

projected for small areas called traffic analysis zones. There were 191 traffic analysis zones (TAZ's) designated in the Rome-Floyd County MPO planning area for this update. A detailed explanation of the procedure and information used to forecast socioeconomic data to the horizon year of 2040 is contained in the 2016 LRTP for 2040.

The same basic methodology was used for the 2040 projections as was previously used in the update of the projections for 2035. In October 2007, the Interagency Consultation Committee reviewed the methodology used for the 2035 Long Range Transportation Plan. The basic methodology was approved by consensus to be used as the basic methodology for the 2016 LRTP for 2040 and the Conformity Determination Report projections. Existing 2010 and future year 2040 socio-economic data estimates are summarized in terms of population, households and total employment in the 2016 LRTP for 2040.

6.2 Transit Service and Fares

The Rome Transit Department is responsible for providing transit service for the City of Rome. Currently the city provides local funding for operating and capital costs for the Transit Department. A combination of federal, state, and local funding as well as system revenues cover the operating and capital costs of the Transit Department. The regular fare for the Transit Authority is $1.25 for a one way trip and transfers are free. The fare for senior citizens, students, and the disabled is $0.60.

As part of the transportation modeling and conformity analysis performed for the 2016 LRTP for 2040, assumptions about transit fares and level of service for the existing and future Rome Transit Department were made and incorporated into the travel demand modeling process. It was assumed that the transit fare would remain constant over the life of the plan. Transit fares remain constant in order to maintain the relationships between transit ridership and socio-economic data and service levels that were used originally to calibrate the travel demand model.

Currently, the RTD operates five fixed bus routes in the City of Rome. In addition, there are 19 downtown tripper buses for the public school system, which provide public service as well. The service hours for the bus routes are from 6:00 a.m. to 6:30 p.m. Monday - Friday. It was assumed that this level of service would remain approximately the same through the life of the plan.

Chapter 7 Technical Analysis Procedures

7.1 Travel Demand Modeling Procedures

Georgia DOT is responsible for the development and application of travel demand models for use in urban areas outside the Atlanta area. In recent years GDOT has been updating its travel demand models for these urban areas to contain state of the practice modeling procedures and techniques to address transportation and air quality planning and conformity analysis.

This section summarizes the key travel demand modeling attributes listed below, in the

Rome model as they relate to the most important factors in estimating emissions for conformity determinations.

1. Socio-economic data based on best available information provided by MPO
2. Consistency between transportation alternatives and land use scenarios
3. Modeled volumes validated against observed traffic counts
4. Reasonable agreement between travel times used for trip-distribution and trip assignment
5. Reasonable sensitivity to time, cost and other factors affecting travel choices
6. Capacity-sensitive traffic assignment methodology

Model Attributes 1 & 2 (Socio-Economic Data)

The primary data inputs to travel demand models is socio-economic data, such as population, employment, and transportation networks. The modeling attributes one and two deal specifically with the socio-economic data inputs to the travel demand modeling process.

The first modeling attribute is that the socio-economic data be based on the best available information. In Georgia, each MPO has the responsibility for preparing socio-economic data. Georgia DOT reviews the socio-economic data for reasonableness and accuracy. The data development process and accuracy checks rely on the best available information, such as US Census data, aerial photography, land use maps, knowledge of proposed new developments and site visits (local knowledge). Other reasonableness and logic checks are made for data at the traffic analysis zone level, such as calculating statistics including population per household, population density and employment density. MPOs and GDOT work cooperatively, using the best available data, to insure that the data inputs to travel demand models are accurate and reasonable.

The second modeling attribute is that socio-economic data reflect the transportation alternatives being considered. This relates to the fact that improved transportation accessibility can alter land use patterns. However, it is generally accepted that significant improvements in transportation accessibility are necessary to bring about relatively small changes in land use. Due to their complexity, land use models are generally utilized in only a few large metropolitan areas in the United States. Georgia's MPOs, with the exception of Atlanta, do not use land use models. Instead, usually a single forecast for future socio-economic data is made that takes into consideration planned major transportation improvements. Future forecasts are generally made by first developing regional control totals for expected growth. Allocation of expected growth is then done using known development patterns and proposals as the basis, taking into consideration planned infrastructure improvements (new highways, sewer extensions, etc.). If unanticipated major projects are evaluated during the plan update process, a revised forecast may be developed with guidance from the local Technical Coordinating Committee. The population and employment forecasts for the FRUTS area are listed in Table 5.

Table 5
Population and Employment Forecasts for Rome-Floyd County
Metropolitan Planning Area 2010 to 2040

	2010	2023*	2030*	2040
Total Population	94,454	100,249	103,154	107,304
Number of Households	39,974	42,297	43,548	45,335
Number of Employment	43,067	48,000	50,656	54,451

**2010 and 2040 Socio-Economic data was provided by MPO, the interim years of 2023 and 2030 SE data was straight-line interpolated based on the 2010 and 2040 Socio-Economic data.*

Model Attribute 3 (Model Validation)

The next attribute involves the validation of travel demand models against observed traffic counts. Model validation is the process of insuring travel models produce results that reasonably replicate observed travel patterns. Properly validated models not only replicate observed conditions, but they also use accurate inputs and apply reasonable calculations to do so.

Georgia DOT applied multiple validation checks to each of the major steps in the Rome travel demand modeling process. In addition to socio-economic data checks, both the inputs and outputs to the models were checked for accuracy and reasonableness during each step of the process. These inputs and outputs include transportation network attributes, trip generation parameters and results, trip distribution parameters and average trip lengths by purpose, auto occupancy rates, and speed-volume relationships.

Highway Networks – Air Quality Attributes

Georgia DOT develops and maintains highway networks with review by and assistance from the Rome-Floyd County MPO. Highway network attributes are reviewed for accuracy using the state road characteristics database, aerial photography and site visits / local knowledge. Network link attributes include the Highway Performance Monitoring System (HPMS) functional classification, so that modeled and observed Vehicle Miles Traveled (VMT) can be compared by county. Networks also include GDOT traffic count station numbers, so counts for the base year model can be included in output networks for validation purposes.

Highway Networks - Speed

Since speeds are highly important for conformity emissions estimation, GDOT uses reasonable inputs and validates each of the factors that influence speed estimation; particularly the following:

- Roadway capacities
- Free-flow speeds
- Modeled volumes
- Speed-volume relationships

Link Capacities

Georgia DOT's link capacities were developed using the latest Highway Capacity Manual Software with typical parameters for various roadway classes and area types. The density of population and employment is used to classify the intensity of development patterns throughout the study area. The Rome model uses the following seven area types to classify land use.

- (1) - Central Business District (CBD) / High Density Urban
- (2) - Urban Commercial
- (3) - Urban Residential
- (4) - Suburban Commercial
- (5) - Suburban Residential
- (6) - Exurban
- (7) - Rural

Table 6 displays the hourly capacities per lane utilized in the Rome travel demand model.

Table 6

Rome-Floyd County Model Hourly Per Lane Capacity Matrix

Per Lane Hourly Capacities by Facility Type and Area Type

		Area Type							
		1	**2**	**3**	**4**	**5**	**6**	**7**	**Facility Description**
Facility Type	**1**	1900	1950	2000	2050	2100	2060	2020	Interstate
	2	1600	1660	1730	1790	1850	1820	1780	Freeway
	3	1300	1380	1450	1530	1600	1570	1540	Expressway
	4	1170	1240	1310	1370	1440	1410	1380	Parkway
	6	1400	1530	1650	1780	1900	1860	1820	Freeway-to-Freeway Ramp
	7	900	1030	1150	1280	1400	1370	1340	Entrance Ramp
	8	800	810	810	820	820	810	790	Exit Ramp
	11	1000	1030	1050	1080	1100	1080	1060	Principal Arterial - Class I
	12	900	900	900	900	900	880	860	Principal Arterial - Class II
	13	800	810	810	820	820	810	790	Minor Arterial - Class I
	14	630	630	640	640	640	630	610	Minor Arterial - Class II
	15	760	760	770	770	770	760	740	One-Way Arterial
	21	520	530	540	550	560	550	540	Major Collector
	22	380	390	390	400	400	390	380	Minor Collector
	23	460	470	470	480	480	470	460	One-way Collector
	30	340	350	360	370	380	370	360	Local Roads
	32	0	0	0	0	0	0	0	Centroids

Free-flow Speeds

Assumed free-flow speeds are approximately 5 mph faster than typical speed limits for the various roadway classes and area types, taking into consideration control for delay (i.e. traffic signals) if applicable. Peak and off-peak free-flow speeds were evaluated using observed speeds obtained from a travel time study conducted in the Augusta area. An analysis of the Augusta data determined Augusta's characteristics and data results are appropriate for use in the Rome model since the travel dynamics for these urban areas are very similar. Table 7.0-3 displays the free-flow speeds utilized in the Rome travel demand model.

Table 7
Rome Model Free-flow Speed Matrix

Speeds by Facility Type and Area Type

Facility Type	Area Type 1	2	3	4	5	6	7	Facility Description
1	55	60	60	60	60	70	70	Interstate
2	50	55	55	55	55	60	60	Freeway
3	50	50	50	50	55	55	55	Expressway
4	45	50	50	50	50	55	55	Parkway
6	55	55	55	55	55	55	55	Freeway-to-Freeway Ramp
7	45	50	50	50	50	55	55	Entrance Ramp
8	22	23	30	31	34	40	48	Exit Ramp
11	25	28	33	34	37	47	52	Principal Arterial - Class I
12	23	26	31	32	35	45	49	Principal Arterial - Class II
13	22	23	30	31	34	40	47	Minor Arterial - Class I
14	21	22	27	30	32	38	45	Minor Arterial - Class II
15	23	26	30	32	35	42	48	One-Way Arterial
21	17	18	21	27	29	34	42	Major Collector
22	14	15	18	24	26	30	40	Minor Collector
23	17	18	21	27	29	34	42	One-way Collector
30	14	14	17	18	22	28	35	Local Roads
32	14	14	17	18	22	28	35	Centroids

Modeled Volumes

Output modeled volumes are validated against traffic counts at several levels – regional, corridors (screenlines & cutlines) and link-by-link. Regional evaluations include VMT, Root Mean Squared Error (RMSE) and R-Squared calculations. Corridor evaluations are primarily screenline and cutline comparisons. Nationally recognized maximum desirable deviation standards are applied to analyze model performance at the link level.

Base year external station volumes are based directly on observed traffic counts at each location. Future year external station volumes are estimated from historical trends in traffic counts at each location. Extrapolated future external station volumes are refined to insure use of reasonable

annual compounded growth rates.

Speed-Volume Relationships

Georgia DOT uses speed-volume relationships that are different for various roadway types and area types. The speed-volume curves are calibrated to accurately reflect observed traffic volumes, while retaining sensible shapes to insure reasonable congested speeds. Peak-period speed data obtained from the GDOT travel time study was used as a reasonableness check in calibrating GDOT speed-volume curves.

Trip Generation

The GDOT trip generation process primarily uses parameters from the Augusta household travel survey, the Quick Response Freight Manual and US Census data. Minor adjustments are made to GDOT standard procedures to reflect unique characteristics in each area being modeled (e.g., port, military bases, etc.). Various validation checks are made to insure that trip generation results are reasonable. National data sources are used as reasonableness checks for trip generation results.

Trip Distribution

Trip distribution parameters are calibrated to produce reasonable average trip lengths. Expected average trip lengths are estimated from Census Journey-to-Work data and the population and geographic size of the modeled area. Travel times from trip assignment are used as input to trip distribution (i.e., feedback), which strengthens the validity of the modeled trip lengths.

Model Attribute 4 (Feedback of Travel Times)

The Rome model insures that there is reasonable agreement between travel times used for trip distribution and trip assignment by implementing a feedback loop. Within the feedback loop, all model steps from trip distribution to trip assignment are repeated until trip tables and link volumes change very little from one loop to the next. The Rome model includes closure criteria for determining whether there is "reasonable agreement" in travel times for trip distribution and trip assignment. Closure is obtained if the following criterion is met:

- Maximum link volume change=<500

The Method of Successive Averages is used to insure that the model reaches stable conditions.

Model Attribute 5 (Mode Choice)

The fifth modeling attribute calls for mode choice models to be reasonably sensitive to changes in travel times and costs. The Rome travel demand model utilizes a trip-end based procedure that determines transit-oriented person trips before the region's person trips are converted to vehicle trips. This trip-end model estimates transit patronage based on socio-economic characteristics such as income or auto-ownership, rather than transportation system characteristics.

Model Attribute 6 (Traffic Assignment)

The sixth modeling attribute calls for the use of capacity sensitive assignment procedures. The Rome model uses equilibrium assignment procedures. The assignment algorithm is a hybrid of a 24-hour assignment and time-of-day assignments. The Rome model was validated using 24-hour counts and modeled volumes.

7.2 Travel Demand Modeling Post-Processing Procedures

The Rome regional travel demand model produces daily estimates of travel and vehicle hours traveled (VHT) and a peak hour speed for each link in the highway network. The links from the daily highway assignment contain a variety of attributes such as the number of lanes, distance, speed, capacities and daily volumes. The daily VMT is determined by multiplying the daily volume by the distance for each link. In order to account for travel conditions throughout the day, VMT estimates, times and speeds by hour were produced. Other refinements to the network link data, discussed below, were performed to produce the files needed for MOVES. The procedures used in estimating emissions for the Rome model area are consistent with the procedures used for emissions modeling (including conformity analyses) in the other attainment/maintenance areas in Georgia.

HPMS Adjustment of VMT

In order to develop the information necessary to perform emissions modeling, post-processing of the output from the travel demand model was required. First, intra-zonal VMT is normally not reflected in the daily network assignment. A procedure was used that multiplied the number of intra-zonal vehicle trips from the vehicle trip table by the zone centroid distance to calculate the intra-zonal VMT. This VMT was then added to the network in a new link and summarized in the model VMT summaries.

Next, the daily VMT from the travel demand model was adjusted based on the VMT estimates that GDOT develops for the Highway Performance Monitoring System (HPMS). According to Section 3.4.2.4 of EPA's "Volume IV" guidance, "[T]he detailed VMT estimates produced by the transportation planning process should be made consistent in the aggregate with HPMS." Consistent with this long-standing SIP guidance, Section 93.122(b)(3) of the Transportation Conformity Rule, Procedures for Determining Regional Transportation Related Emissions, says:

> *"Highway Performance Monitoring System (HPMS) estimates of vehicle miles traveled (VMT) shall be considered the primary measure of VMT within the portion of the attainment/maintenance or maintenance area and for the functional classes of roadways included in HPMS.... For areas with network-based travel models, a factor (or factors) may be developed to reconcile and calibrate the network-based travel model estimates of VMT in the base year of its validation to the HPMS estimates for the same period. These factors may then be applied to model estimates of future VMT."*

EPA guidance issued in August 2005, *Guidance for Creating Annual On-Road Mobile Source Emission Inventories for PM2.5 Attainment/maintenance Areas for Use in SIPs and Conformity*, identified

several approaches for preparing PM2.5 emissions. The guidance also specified that the interagency consultation process should be used to determine which approach is most appropriate for the area. The Rome interagency consultation group agreed to the *Single-Run Approach* recommended by GA EPD and GDOT for establishing the MVEB and performing subsequent conformity analyses. This methodology involves a single set of modeling runs using MOVES for each scenario year and annual average VMT.

HPMS adjustment factors were developed based on the average annual daily HPMS VMT for the model calibration year. In the case of Rome there are two model calibration years, 2002 and 2009. The Rome model that was used to prepare the emissions for the base year 2002 was calibrated and validated for the year 2002. A new Rome model has been developed that was calibrated and validated for the year 2009. The 2009 model was used to prepare the emissions for the years 2012 through 2040.

The HPMS adjustment reconciles the travel demand model link-based VMT to the average annual daily travel conditions at the functional class level. The aggregate functional classification level was used for 2009 since FHWA eliminated the urban/rural area type distinction from HPMS functional classifications beginning with the 2009 data, reported in 2010. (Guidance for the Functional Classification of Highways (updated), Federal Highway Administration, October 14, 2008.) The HPMS adjustment factor by functional class and urban area was used for 2002.

To determine the "2009 HPMS VMT" adjustment factors, the average annual daily Floyd County VMT for the year 2009 was summarized by the HPMS functional classifications from the Georgia Department of Transportation's Office of Transportation Data "445 Report." The data was summarized for the Rome MPO area which consists of all of Floyd County. The 445 Report summarizes the mileage and VMT by function classification by county.

The following equation was used to calculate the 2010 HPMS adjustment factors:

$$HPMS\ Adjustment\ Factor_i = (2009\ HPMS\ VMT_i / 2010\ Model\ VMT_i)$$

where $_i$=HPMS functional class)

The 2002 factors were applied to the VMT on each link in the highway network based on the functional classification for the year 2002. These factors were applied to the model application for 2002. A separate set of HPMS adjustment factors were developed for 2009 using the aggregate method. The 2010 factors were applied to the model applications for all analysis years (2023, 2030, and 2040). Table 8 lists the adjustment factors based on the comparison between the HPMS VMT and the VMT from the regional travel demand model for 2010.

Table 8
HPMS VMT Adjustment Factors for Rome MPO Area
(from the Rome-Floyd County MPO travel demand model)

Functional Class Name	Functional Class No.	2010 HPMS VMT	2010 Model VMT	2010 Adjustment Factors
Interstates and Urban Freeways	1,11,12	70,000	76,266	0.92
Principal Arterials	2,14	1,024,000	1,030,057	0.99
Minor Arterials	6,16	599,000	585,946	1.02
Collectors	7,8,17	374,000	346,276	1.08
Local	9,19	873,000	333,793	2.62

Table 9 shows the adjusted average annual daily modeled VMT for Floyd County used in the emissions modeling procedures for the years 2002 through 2040.

Table 9
Average Annual Daily Modeled VMT for Floyd County
(As adjusted per Table 8)

Year	Average Annual Daily Adjusted VMT
2023	2,988,966
2030	3,210,878
2040	3,358,023

VMT Estimation by Hour

Factors derived using the methodology described in the report *Speed and Delay Prediction Models for Planning Applications* were used to develop VMT estimates by hour from the daily estimates. The methodology is a simplified queuing-based model (QSIM) which incorporates several key features such as the use of temporal distribution as a basis for developing hourly traffic estimates and the estimation of "peak spreading" for both arterials and freeways. Because most analytical methods consider only the effects of peak hour congestion (such as V/C ratio), a new measurement of daily congestion was used: the Average Annual Daily Traffic-to-Capacity (AADT/C) ratio, where capacity is the two-way capacity. Hourly factors were developed based on the AADT/C ratio and are listed in Table 10. These factors were applied to the daily traffic assignment to develop hourly volumes and VMT by link. Conical volume-delay curves were then used to develop hourly times and speeds by link.

Roadtype Classification

The network link data was classified by MOVES roadtype based on functional classification. The mapping of FHWA highway functional system classifications to the appropriate MOVES roadtypes used for this modeling is listed in Table 11. Interstate and freeway ramps are functionally classified as local facilities in Georgia. Since these facilities operate with restricted access, the facility type definition variable (a unique variable in the highway network that defines the highway facilities based on their operation) was used to classify ramps as either rural or urban restricted facilities. Off-network activity is calculated within the MOVES process based on the source type (vehicle) population and is not an input from the travel demand model data.

Table 10
Hourly Distribution of Daily Vehicle Miles Travelled (VMT)

Hour of Day																						
3	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**
.48	0.45	0.67	1.85	5.01	7.73	6.13	4.82	4.79	5.12	5.36	5.47	6.05	7.27	8.28	8.27	5.89	4.18	3.32	3.03	2.44	1.77
.48	0.43	0.64	1.82	5.04	7.67	6.42	4.97	4.82	5.19	5.41	5.53	6.07	7.14	7.97	7.90	5.87	4.21	3.33	3.10	2.53	1.84
.48	0.42	0.63	1.81	5.06	7.64	6.56	5.05	4.84	5.22	5.43	5.56	6.08	7.08	7.81	7.71	5.86	4.22	3.33	3.13	2.58	1.88
.47	0.40	0.61	1.80	5.05	7.49	6.61	5.19	4.95	5.29	5.46	5.60	6.09	6.99	7.58	7.50	5.92	4.31	3.38	3.18	2.63	1.91
.45	0.38	0.58	1.79	5.05	7.33	6.65	5.33	5.06	5.35	5.50	5.64	6.11	6.90	7.34	7.28	5.98	4.39	3.43	3.23	2.68	1.93
.44	0.36	0.56	1.78	5.04	7.17	6.70	5.47	5.17	5.42	5.53	5.68	6.12	6.81	7.10	7.06	6.04	4.48	3.48	3.28	2.73	1.96
.75	0.68	0.86	1.98	4.97	6.92	6.49	5.36	5.09	5.32	5.42	5.55	5.96	6.59	6.86	6.82	5.88	4.45	3.54	3.35	2.85	2.14
.06	0.99	1.16	2.18	4.90	6.67	6.28	5.25	5.00	5.21	5.30	5.43	5.80	6.37	6.61	6.58	5.73	4.43	3.60	3.43	2.97	2.33
.37	1.31	1.46	2.38	4.82	6.42	6.07	5.14	4.92	5.11	5.19	5.30	5.63	6.15	6.37	6.34	5.57	4.40	3.65	3.50	3.09	2.51
.68	1.63	1.76	2.58	4.75	6.17	5.86	5.04	4.84	5.00	5.08	5.18	5.47	5.93	6.12	6.10	5.42	4.38	3.71	3.58	3.21	2.70
.99	1.95	2.06	2.77	4.68	5.92	5.65	4.93	4.75	4.90	4.96	5.05	5.31	5.71	5.88	5.86	5.26	4.35	3.77	3.65	3.33	2.88
.30	2.26	2.36	2.97	4.60	5.67	5.43	4.82	4.67	4.79	4.85	4.92	5.14	5.49	5.63	5.61	5.10	4.32	3.82	3.72	3.45	3.06
.61	2.58	2.66	3.17	4.53	5.42	5.22	4.71	4.59	4.69	4.74	4.80	4.98	5.27	5.39	5.37	4.95	4.30	3.88	3.80	3.57	3.25
.92	2.90	2.96	3.37	4.46	5.17	5.01	4.60	4.50	4.58	4.62	4.67	4.82	5.05	5.14	5.13	4.79	4.27	3.94	3.87	3.69	3.43
.24	3.22	3.27	3.57	4.39	4.92	4.80	4.49	4.42	4.48	4.51	4.55	4.66	4.83	4.90	4.89	4.64	4.25	4.00	3.95	3.81	3.62
.55	3.53	3.57	3.77	4.31	4.67	4.59	4.38	4.33	4.38	4.39	4.42	4.49	4.61	4.66	4.65	4.48	4.22	4.05	4.02	3.93	3.80
.86	3.85	3.87	3.97	4.24	4.42	4.38	4.28	4.25	4.27	4.28	4.29	4.33	4.39	4.41	4.41	4.32	4.19	4.11	4.09	4.05	3.98
.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17

Table 11
Listing of FHWA Highway Functional Classifications
Mapped to MOVES Road Types

FHWA Highway Functional System	MOVES Road Type	MOVES Value
Rural interstate	Rural restricted access	2
Rural other principal arterial	Rural restricted access	2
Rural minor arterial	Rural unrestricted access	3
Rural major collector	Rural unrestricted access	3
Rural minor collector	Rural unrestricted access	3
Rural local	Rural unrestricted access	3
Urban interstate	Urban restricted access	4
Urban other freeways	Urban restricted access	4
Urban other principal arterial	Urban unrestricted access	5
Urban minor arterial	Urban unrestricted access	5
Urban collector	Urban unrestricted access	5
Urban local	Urban unrestricted access	5

Speed Bin Classification

The network link hourly data was also stratified by speed bin. As previously mentioned, conical volume-delay curves were used to develop hourly times and speed by link. MOVES defines 16 "speed bins" which describe the average driving speed on a roadtype or highway network link. Table 12 lists the speed bins and ranges that were assigned to the network link data by hour.

Table 12
Listing of MOVES Speed Bins

Speed Bin	Lower Range	Upper Range
1	0	2.4
2	2.5	7.4
3	7.5	12.4
4	12.5	17.4
5	17.5	22.4
6	22.5	27.4
7	27.5	32.4
8	32.5	37.4
9	37.5	42.4
10	42.5	47.4
11	47.5	52.4
12	52.5	57.4

Speed Bin	Lower Range	Upper Range
13	57.5	62.4
14	62.5	67.4
15	67.5	72.4
16	72.5	99

7.3 Regional Emissions Analysis for PM2.5 Conformity Determination

The regional emissions analysis consisted of MOVES runs to produce emissions results in grams per weekday and then converting the emissions to units of tons per year. To complete this conversion, an annualization factor was developed that also takes into account the lower level of activity on weekends vs. weekdays (instead of just multiplying by 365). The factor was based on the MOVES defaults for DayVMTFractions which is being used as part of the MOVES inputs. The following formula was used:

Number of weekday equivalents in a year = 365*(5/7) + 365*(2/7)*
MOVES Urban Weekend Adjustment Factor (.7793) = 341.9809

This is shown in cell D34 of tab "Import HPMS AADVMT and Factors" in the EPA AADVMTCalculator Excel workbook. The daily emissions are produced in grams and are converted to tons by dividing by 907,184.74. MOVES input and output files are available electronically from the Rome-Floyd County Metropolitan Planning Organization staff upon request. The daily emissions in tons are then multiplied by 341.9809 to produce annual emissions.

The results from the regional emissions analysis produced using the travel demand model and the MOVES emission model are listed in Table 13 by year. The Transportation Conformity Rule requires that the LRTP, TIP and projects not from a conforming LRTP and TIP must satisfy the budget test required by Section 93.109(c)(1) for areas with motor vehicle emissions budgets. **The emissions predicted for analysis years 2023, 2030, and 2040 are not greater than the 2023 motor vehicle emissions budgets for both NOx and $PM_{2.5}$; therefore, the budget tests are met. Table 13 shows that the conformity determination for the 2016 LRTP for 2040 and the April 2016 Amended 2014-2017 TIP meet the required federal standards.** Figures 3 and 4 graphically show the emissions for each analysis year compared to the motor vehicle emissions budgets for $PM_{2.5}$ and NOx respectively.

Table 13
Summary of Emissions for $PM_{2.5}$ Conformity Determination
(Tons/Year)

NOx	**2023**	**2030**	**2040**
NOx emissions	803.9	628.6	613.2
2023 NOx MVEB	994.4	994.4	994.4
$PM_{2.5}$	**2023**	**2030**	**2040**
$PM_{2.5}$ emissions	30.3	24.3	25.2
2023 $PM_{2.5}$ MVEB	38.0	38.0	38.0

Figure 3
Summary of $PM_{2.5}$ Emissions Test (for $PM_{2.5}$ Conformity Determination (Tons/Year))

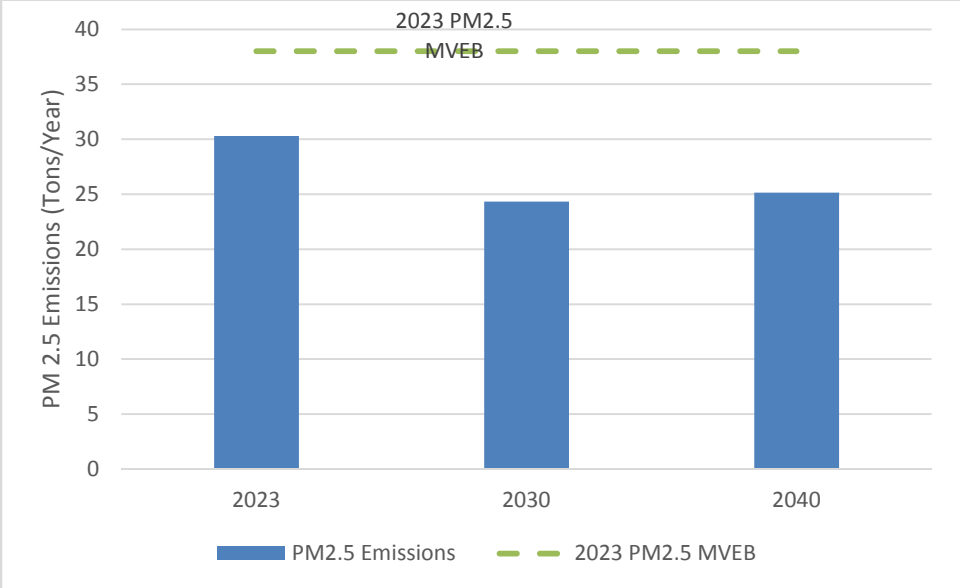
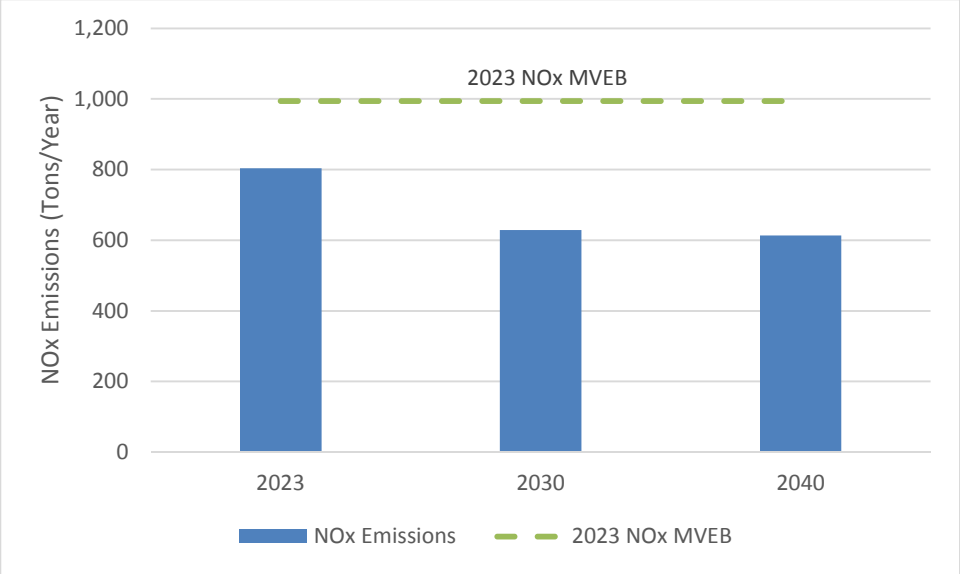


Figure 4
Summary of NOx Emissions Test (for $PM_{2.5}$ Conformity Determination (in Annual Tons)



Appendix A: FHWA Checklist

FHWA Resource Center
AIR QUALITY TEAM
Demonstration Requirements for Transportation Conformity of Metropolitan Long Range Plans

Identify if the Item is Complete with a Check and Include the Appropriate Page Number from the Document.
General

___ 1. The report documents that the Transportation Plan is in conformance with the State Implementation Plan (SIP) and complies with the Clean Air Act, the Transportation Conformity Regulation, the Statewide and Metropolitan Planning Regulation, and other applicable federal and state requirements. Page Number ___
___ 2. Tabulation of Analysis Results for applicable pollutants showing that the required conformity test was met for each analysis year. Page Number ___
___ 3. The report contains a copy of the Adopting Resolution by the Metropolitan Planning Organization (MPO) of the Transportation Plan, and the Conformity Determination for the Transportation Plan. Page Number ___
___ 4. The report documents that the Transportation Plan at minimum has a 20 year planning horizon. Page Number ___
Recommendation: Indicate the date of the last Transportation Plan update.
___ 5. The report states that the Transportation Plan and Transportation Improvement Program (TIP) are fiscally constrained and a funding source for all the projects listed in the Plan and TIP for the construction and operation (if applicable) of the project is identified. Page Number ___
Recommendation: Identify specific funding source by category.
___ 6. The report documents that the contents of the Transportation Plan meet the requirements of 40 CFR 93.106; Including the highway and transit system described in terms of regional significance which is sufficiently identified in terms of design concept and design scope to allow modeling consistent with the modeling methods for area-wide transportation analysis in use by the MPO. Page Number ___
Recommendation: Indicate the project classification - exempt, safety, widening, etc.
___ 7. The report documents all projects for each of the Transportation Plan's horizon years, including project identification number for reference in the TIP, exempt status, and regional significance, including non-federal projects. Page Number ___
Recommendation: Explain the process for non-federal regionally significant project disclosure.
___ 8. The report documents that the latest planning assumptions were used, including demographics, employment, land use, and other factors affecting the analysis that were updated or revised from the last adopted Plan. Page Number ___
Recommendation: Provide the source and year the assumption was last updated.
___ 9. The report explains how the latest planning assumptions of the Transportation Plan meet the requirements of 40 CFR 93.110. Page Number ___
___ 10. The dates the area was designated or redesignated by the Environmental Protection Agency (EPA) are shown along with information on criteria and/or precursor pollutants. Page Number ___
Identify if the Item is Complete with a Check and Include the Appropriate Page Number from the Document.
Interagency / Public Comment
___ 11. The report documents comments raised verbally or in writing by an interagency consultation partner and how the MPO addressed such concerns; or, the report states that no significant comments were received. Page Number ___
___ 12. The report documents the Public Involvement Plan process of the Transportation Plan and conformity analysis including any comments raised verbally or in writing and how the MPO addressed such concerns; or, the report states that no significant comments were received. Page Number ___
___ 13. The report explains how the Transportation Plan and conformity analysis were developed according to the consultation procedures outline in 40 CFR 93.105 and 93.112 including but not limited to, model evaluation and selection, minor arterials and other transportation projects treated as regionally significant, and determining if a project otherwise exempt under 40 CFR 93.126 should be treated as non-exempt. Page Number ___
Transportation Control Measures (TCMs)
___ 14. If the Transportation Plan contains any SIP TCMs the requirements in 40 CFR 93.110 (e) and 93.113 are met; or, the report states the Transportation Plan contains no SIP TCMs. Page Number ____
Recommendation: Provide the schedule dates to show compliance with the SIP. If delayed, explain why and how this deficiency is being addressed.
Regional Emission Analysis
___ 15. The analysis/horizon years were selected by the MPO through the interagency consultation process. Page Number ___
___ 16. The analysis/horizon years meet the requirements of 40 CFR 93.106 (a)(1), 93.118 (b), or
93.119 (e), whichever is applicable. Page Number ___
___ 17. The report documents the use of the latest emissions estimation model, consistency with the SIP assumptions, and provides copies of the input and output files used in the analysis. Page Number___
___ 18. The report documents how the requirements of the Emission Budget Test in 40 CFR 93.118 or the Emission Reduction Test in 40 CFR 93.119 were met for each pollutant the area is designated attainment/maintenance or maintenance. Page Number ___
___ 19. Applicable if Emission Budget Test was used: the report documents that the emission budgets used in the conformity analysis are those found in the latest approved SIP or latest SIP budget found adequate by the EPA for transportation conformity. The appropriate Federal Register notice is also present. Page Number ___
___ 20. Applicable if Emission Reduction Test was used: The report documents that the "Baseline" scenario includes all the future transportation system resulting from all in place regionally significant highway and transit facilities; all ongoing travel demand management and regionally significant projects that are currently under construction or undergoing right-of-way acquisition, regardless of funding source. Page Number ___
Identify if the Item is Complete with a Check and Include the Appropriate Page Number from the Document.
___ 21. Applicable if Emission Reduction Test was used. The report documents that the "Action" scenario includes all facilities, services, and activities in the "Baseline" scenario as well as all the future transportation system resulting from the implementation of the proposed Transportation Plan, all expected regionally significant projects and additional projects delineated in 40 CFR 93.119 (g). Page Number ___
___ 22. The report documents that the requirements of 40 CFR 93.122 are met, including but not limited to, explaining how the Vehicle Miles of Travel (VMT) from projects which are not regionally significant have been estimated in accordance with reasonable

professional practice, and how reasonable methods were used to estimate VMT for off-model transportation projects. Page Number ___

Recommendation: Indicate the date the model was updated and calibrated.

___ 23. The report explains (as applicable) how the travel demand model VMT used as the basis for the emission inventory has been reconciled and calibrated to the Highway Performance Monitoring System VMT for the year of validation and future estimates of VMT. Page Number ___

Disclaimer: This checklist is intended solely as an informal guideline to be used in reviewing Transportation Plans and TIPs for adequacy of their documentation. It is in no way intended to replace or supersede the Transportation Conformity Regulations 40 CFR Parts 51 and 93, Statewide and Metropolitan Planning Regulations 23 CFR Part 450, or any EPA, FHWA, and FTA guidance pertaining to Transportation Conformity or Statewide and Metropolitan Planning. For further information on the correct use of this checklist you may contact:

Mike Roberts, Air Quality Specialist
Federal Highway Administration
Resource Center
61 Forsyth St., Suite 17T26
Atlanta, GA 30303-3104
(404) 562-3928

Appendix B: Summary of Interagency Consultation

Inter-Agency Consultation
Excerpts from the Minutes

19 November 2015 IAC Meeting
Attendees included K. Mote, H. Kasha, and T. Caiafa, and P. Peevey of GDOT; G. Grodzinsky of EPD; D. Kall of Cambridge Systematics, Inc.; and D. Myers and A. Sommerville of EPA. The two options for Planning Assumptions for 2016 LRTP for 2040and 2016 CDR were considered. All present agreed on using Option A, but asked that the MPO get input and agreement from FHWA (Andrew Edwards of FHWA agreed on using Option A in an e-mail dated 24 November 2015).

17 December 2015 IAC Meeting, 1:30 p.m.
Attendees included K. Mote, H. Kassa, T. Caiafa, and P. Peevy of GDOT; G. Grodzinsky of EPD; D. Kall of Cambridge Systematics, Inc.; D. Myers and A. Sommerville of EPA; O. Lewis of FHWA. The Regional Significance Memo and lists were discussed and GDOT, EPD, and EPA agreed to use of the Memo. GDOT, EPD, and EPA asked for the lists to be reformatted to include phase and year of expenditure, and MPO agreed to revise the lists and send them out for an e-mail determination of agreement to their use. FHWA did not respond on agreement to the Memo or the lists. (Olivia Lewis of FHWA agreed on using the Memo and the lists in an e-mail dated 29Dec15, G. Grodzinsky of EPD agreed on the lists and Memo in an e-mail dated 29Dec15, T. Caiafa of GDOT agreed on the lists and Memo in an e-mail dated 29Dec15).

21 January 2016 IAC Meeting, 1:30 p.m.
Attendees included K. Mote, H. Kassa, and T. Caiafa of GDOT; G. Grodzinsky of EPD; D. Myers of EPA; O. Lewis of FHWA. The Regional Significance Memo and the project list have been reviewed by all and are acceptable. Myers asked what the time frame for the LRTP and CDR is. It must be approved and adopted by 26 April 2016 and appears to be progressing on schedule; Kassa stated that work is on schedule. The schedule for a new TIP was discussed. Mote stated that GDOT would not have the information for a new TIP until near the end of FY2016; at that time a 2017-2020 or even a 2018-2021 TIP will be developed. In the meantime, the amended (October 2015) 2014-2017 TIP is in place, and will be amended or modified if necessary. There was no dissension with that scenario. There was no further business. NOTE: following the January meeting GDOT added a new Exempt project to the LRTP: the MPO informed all IAC members via e-mail that the new project would be added to the 2016 LRTP for 2040 and the 2014-2017 TIP would be amended to include the new project

18 February 2016 IAC Meeting, 1:30 p.m.
Attendees included K. Mote, P. Peevy, D. ??, and T. Caiafa of GDOT; G. Grodzinsky of EPD; D. Myers and R. Wong of EPA, D. Kall of Cambridge Systematics. Kall confirmed that the air quality modeling will be complete by 11 March. Because of some minor project changes (funding source for a non-exempt project, addition of an exempt project) there will be an April 2016 amendment to the 2014-2017 TIP. There was no dissension. Myers discussed the PM2.5 SIP Rule, which may be finalized by late summer 2016. Peevy asked if the 1997 standard should be used in the meantime, and Myers concurred. There was no further business.

Appendix C: Rome Interagency Summary of Planning Assumptions Used in PM2.5 Regional Emissions Analysis

Rome Interagency Summary of Planning Assumptions
Used in PM 2.5 Regional Emissions Analysis
November 12, 2015

On December 17, 2004, the United States Environmental Protection Agency (EPA) designated Floyd County as nonattainment under the fine particulate (PM2.5) air quality standard. The effective date of designation was April 5, 2005. On May 14, 2014 the EPA re-designated Floyd County to attainment for the fine particulate (PM2.5) air quality standard and approved the associated maintenance plan and motor vehicle emission budgets (MVEBs) for NOx and PM2.5 for the year 2023[1]. The effective date of this re-designation was June 12, 2014.[2] The Floyd-Rome Urban Transportation Study (FRUTS) will be completing a conformity analysis under the PM2.5 standard for their new 2040 Long Range Transportation Plan (LRTP) and the FY 2014-2017 Transportation Improvement Program (TIP). *(NOTE: in February of 2016 the MPO informed the IAC that due to changes in programmed projects and funding an April 2016 Amended 2014-2017 TIP will be the first prepared under the 2016 LRTP for 2040.)*

Below is a detailed listing of the procedures and planning assumptions for the upcoming conformity analysis. This summary is submitted to Interagency Consultation (IAC) in accordance with Section 93.105(c)(1)(i) of the Transportation Conformity Rule which requires interagency review of the model(s) and associated methods and assumptions used in the regional emissions analysis. All assumptions apply to both the LRTP and the TIP.

Interagency consultation on methods and assumptions that affect the conformity analysis is an ongoing process. All of the planning assumptions listed below have been discussed and agreed upon by the interagency partners, and documented in previous meeting summaries. This briefing provides formal documentation that there has been interagency review and concurrence on all methods and assumptions used in the regional emissions analysis.

Section 1: General Methods and Assumptions

1) Modeling Methodology
    a. Existing Rome travel demand modeling process for Floyd County
    b. Supplemented with GDOT's latest modeling procedures
    c. All of Floyd County is modeled
    d. Newly validated Base Year 2010 model will be used for all conformity analysis years

2) Conformity Analysis Years
    a. 2023, 2030 and 2040

3) Conformity Test

[1] Approved 2023 MVEBs were 994.4 tpy NOx; and 38.0 tpy PM2.5.
[2] https://www.federalregister.gov/articles/2014/05/14/2014-10960/approval-and-promulgation-of-implementation-plans-and-designation-of-areas-for-air-quality-planning

a. Comparison to 2023 MVEBs for years 2023, 2030, and 2040

4) Qualitative Finding of No Factors Contributing to Violation Before Last Year of Maintenance Plan[3]
    a. Floyd County has attained the 1997 annual PM2.5 standard of 15 µg/m3 and currently has an approved maintenance plan in place. Floyd County was designated attainment under the more stringent 2012 annual PM2.5 standard of 12 µg/m3 based on monitoring data from 2011-2013. This continuing improvement in PM concentration levels in Floyd suggests that there are no factors which would cause or contribute to a new violation or exacerbate an existing violation in the years before the last year of the maintenance plan (2023).

5) Modeling Start Date: Modeling activities began January 2015. This start date is defined as the initiation of the first model run for the LRTP.

6) IAC Consensus on Planning Assumptions: IAC provided consensus on all planning assumptions in November 2015.

Section 2: Travel Demand Modeling Assumptions

1) Validation Year: 2010
2) Models' Calibration Year: 2010
3) Project Listing: Provided as separate attachment; includes
    a. Regionally Significant and Federally Funded
    b. Regionally Significant and Non-Federally Funded
4) Travel Demand Model is state of the practice and described in a separate document.
5) Demographic Data: Provided in a separate document
6) Transit Modeling (covered in travel demand modeling document)
    a. Transit mode split is estimated using trip end mode choice
        i. Estimates trips from the person trips developed in trip generation
        ii. Determines transit-oriented person trips prior to conversion of region's person trips to vehicle trips

Section 3: Emissions Model Assumptions

1) Emission Factor Model: MOVES2010b - Database: MOVES20121030
    a. Emission Process - using MOVES in Inventory mode for a July day, which will then be annualized

[3] Section 93.118(b)(2)(i) of the Transportation Conformity Regulations requires areas with a maintenance plan that does not establish budgets before the last year of the maintenance plan (2023) to show a "qualitative finding that there are no factors which would cause or contribute to a new violation or exacerbate an existing violation in the years before the last year of the maintenance plan."

2) MOVES Inputs –
    a. Temperature and relative humidity
        i. 2007 data from National Mobile Inventory Model's (NMIM) default database (NCD20090531)
    b. Fuel
        i. Floyd County
            1. Use MOVES defaults for each month of year combined into July dummy month – MOVES defaults for Bibb County were used as a surrogate for Floyd because the RVP for Floyd appears to be too low in the MOVES database. This is consistent with EPA Guidelines in *Section 3.9 Fuel (Formulation and Supply) of Technical Guidance on the Use of MOVES2010 for Emission Inventory Preparation in State Implementation Plans and Transportation Conformity.*
    c. 2002 Regional Fleet Age Distribution
        i. Derived from R.L. Polk & Co. registration data for Floyd county
        ii. Default for HDDV Class 8B
    d. Regional Vehicle Population
        i. Started with 2002 R.L. Polk & Co. registration data for the Floyd county, as well as the Georgia Dept. of Revenue's registration data for 2003 and 2007
        ii. Vehicles by type were grown from 2002 to 2007 using different growth factors by vehicle type based on either Census person population estimates or on Georgia 2007 registration data. Methodology developed by EPD for inputs to the SMOKE-MOVES Integration Tool.
        iii. 2023, 2030 and 2040 data grown from 2007 based on estimated MPO population growth
        iv. Vehicle population for MOVES source type 62 revised using MOVES default VMT/VPOP ratios and VMT for HPMS type 60 data
    e. MOVES Default VMT fractions by source type, adjusted using GDOT count data

Section 4: HPMS Adjustment Factors

1) Floyd County
    a. Calculated for the 2010 model's estimates of 2010 VMT
    b. Calculated using average annual DVMT for 2010 (from GDOT 445 Report)
    c. Reflects Section 93.122(b)(3) of the Transportation Conformity Rule which recommends that HPMS adjustment factors be developed to

reconcile travel model estimates of VMT in base year of validation (2010) to HPMS estimates for the same period.

d. HPMS adjustments based on all of Rome MPO area to capture the regional travel activity
e. Resulting HPMS-adjusted DVMT will be entered into EPA AADVMT converter to produce annual VMT which will be imported into MOVES

Section 5: Off-Model Calculations

1) No off-model calculations

Section 6: TCMs

1) No TCMs

Appendix D: Technical Memorandum on the Definition of Regionally Significant Facilities

Rome-Floyd County Metropolitan Planning Organization

Technical Memorandum

TO: Interagency Committee

FROM: Sue Hiller, Director

DATE: 3 December 2015

RE: Regionally Significant Facilities

On 17 December 2015 this technical memorandum concerning the designation of Regionally Significant Facilities was discussed with the Interagency Committee (IC). This memorandum follows the wishes of the Interagency Committee for defining Regional Significance for the Rome-Floyd County attainment/maintenance area. The basic rationale used in identifying regionally significant facilities for the attainment/maintenance area was founded on the stated tenants of the Transportation Conformity Rule; specifically, a regionally significant facility must be one of the following:

1. a principal arterial highway or fixed guide way transit facility that offers an alternative to regional highway travel, and

2. a facility that serves regional transportation needs (e.g. access to and from the area outside of the region, major activity centers in the region, major planned developments like new retail malls, sport complexes, terminals etc.), and

3. a facility that would normally be included in the modeling of a metropolitan area's transportation network.

In addition to the above criteria, the Interagency Committee is required to determine which minor arterials and other transportation projects should be considered "regionally significant" for the purposes of regional emissions analysis. It has been determined through interagency consultation that, in accordance with current and previous transportation and emissions modeling practice in Georgia, link-level regional emissions analyses will be performed and will include every link in the travel demand model. For conformity purposes other than regional emissions analysis, regionally significant facilities may be in addition to those functionally classified as principal arterial or higher or fixed guide way systems or extensions that offer an alternative to regional highway

travel. The following sections of this memorandum are developed to assist the committee in identifying those minor arterials which are regional in function.

The Rome-Floyd County attainment/maintenance area is located in the geographic center of the Coosa Valley Region as designated by the Georgia Department of Community Affairs (DCA) as a planning area and the US Department of Commerce, Economic Development Administration as an economic district. This region was used by the MPO staff for analyzing the significance of facilities within attainment/maintenance area. (See Map 1)

Linkages by transportation resources from second tier cities and communities to the central city of Rome represent a true demarcation of regional connectivity for the Coosa Valley Area. Table 1 shows these linkages and the functional classification of each route.

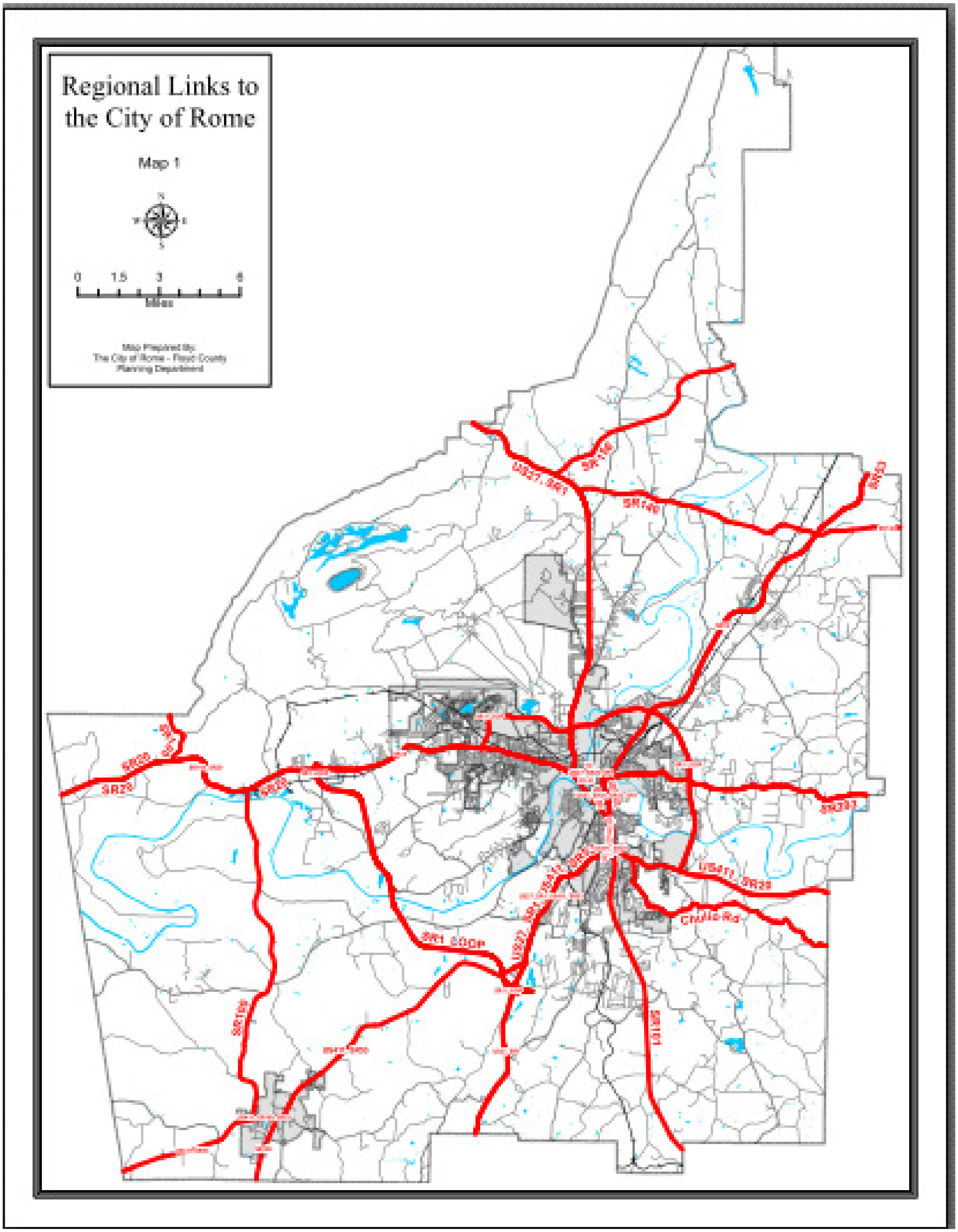

Regional Links to
the City of Rome
Map 1
0 1.5 3 6
SR20
SR140
SR293
SR1 LOOP
SR101

Table 1. Regional Links to the City of Rome

City	Route	Functional Classification
Cartersville	U.S. 411 to Floyd Co. Line	Principal Arterial
Cartersville	SR1LO from US411/SR20 to SR53	Principal Arterial
Cartersville	SR 293 to Floyd Co. Line	Major Collector
Euharlee	CR 639 (Chulio Road) from U.S. 411 to Floyd Co. Line	Minor Arterial / Major Collector
Rockmart	U.S. 101 from downtown to the Floyd Co. Line	Minor Arterial
Cedartown	U.S. 27 / SR 1 from downtown to the Floyd Co. Line	Principal Arterial
Cave Spring, GA / Centre, AL	U.S. 411 / SR 53 from SR 20 to the Floyd Co. Line	Minor and Principal Arterial
Cave Spring, GA / Centre, AL	SR1LO from SR20 to US27	Principal Arterial
Cedar Bluff, AL / Centre, AL	SR 20 from downtown to the Floyd Co. Line	Principal Arterial
Cedar Bluff, AL / Centre, AL	SR1LO from SR20 to US27/SR53/US411	Principal Arterial
Summerville / LaFayette	SR 20 / SR 100 from SR 1LO to the Floyd Co. Line	Principal Arterial / Major Collector
Summerville / LaFayette	U.S. 27 / SR 1 from SR 1LO to the Floyd Co. Line	Principal Arterial
Calhoun	SR 53 from SR 1LO to the Floyd Co. Line	Minor Arterial
Adairsville	SR 140 from U.S. 27/SR 1 to the Floyd Co. Line	Minor Arterial
Rome	SR 1LO from U.S. 411 to SR 20	Principal Arterial
Rome	U.S. 27/SR20/SR53 from Ledbetter Interchange to SR 1LO	Principal Arterial

As can be seen from the preceding table, these highways are principal arterials, minor arterials, and major collectors. Significance is given to the listed minor arterials because they represent a true regional connection from within the region to the city of Rome.

Regional connectivity to major activity centers must also be considered when evaluating the designation of a street or highway. Six classifications of major activity centers within the attainment/maintenance area were identified for this purpose; namely, employment centers, shopping areas, educational institutions, tourism destinations, medical services, and regional transportation facilities. (See Map 2) Each of these centers attracts regional trips for specific reasons. The following provides the rationale for identifying these centers which were used in the regional facility analysis:

1. As with other central cities in the nation, Rome offers jobs for many living outside of the city, but within the region. Major employment centers like Floyd County Industrial Park (942 employees), Berry Corporate Center (576 employees), Floyd Medical Center (1;880 employees), and Redmond Regional Medical (1,050 employees) offers employment to residents of the Northwest Georgia Region. The North Floyd Industrial Park currently employs 900+/- persons;

2. Shopping centers or major shopping areas of 200,000 square feet of floor area or more are generally recognized as regional shopping facilities. The Mount Berry Square Mall on US 27/SR 1 at approximately 487,000 sq. ft., the Riverbend Center on US 27/SR 20/SR 53 at approximately 266,000 sq. ft., and the Shorter Ave. Corridor meet this criterion. Proposed commercial development on Turner McCall Boulevard near Floyd Medical Center, near the Braves Stadium on SR1LO, and on Riverside Parkway may also meet this criteria;

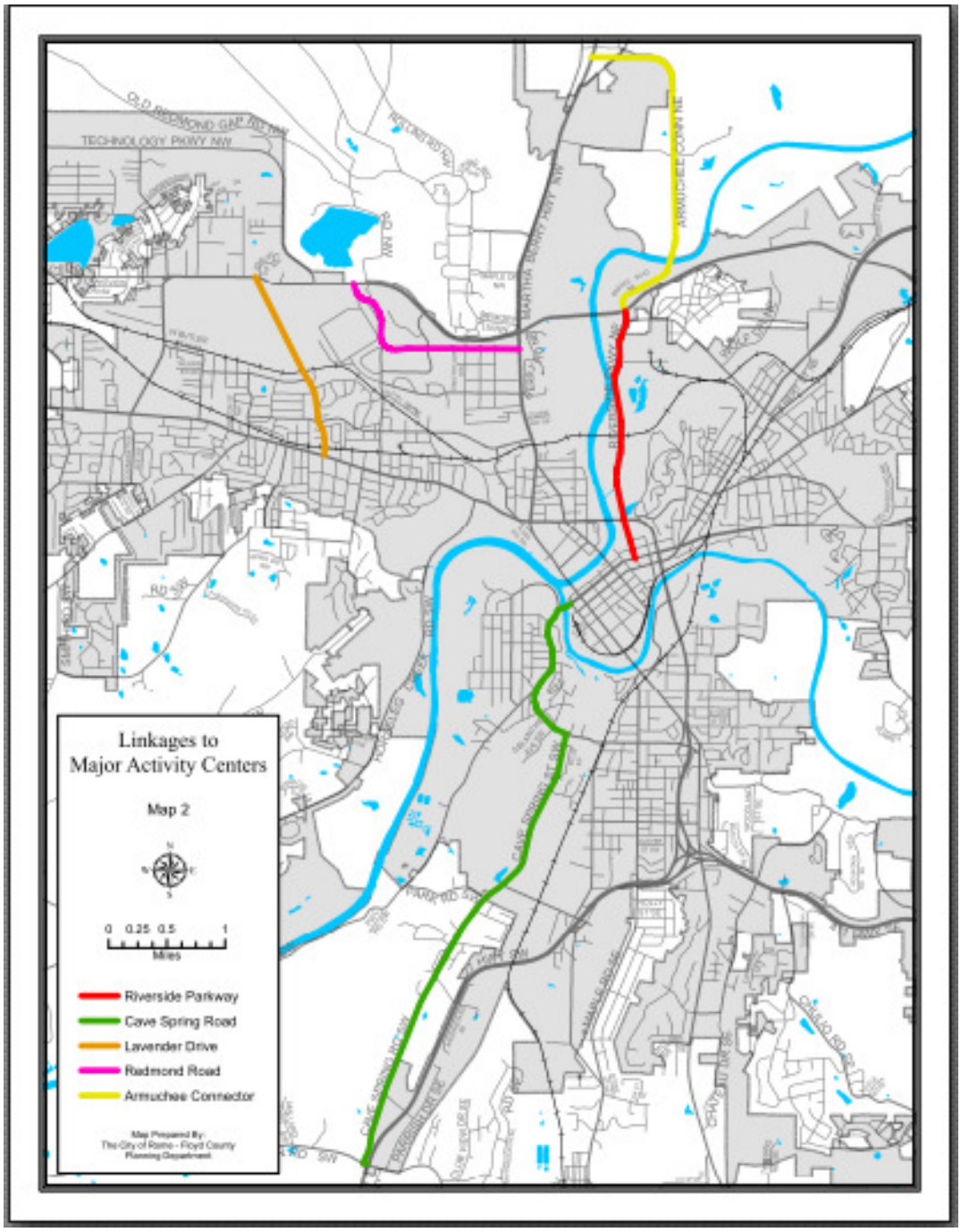
3. Colleges and Universities have historically attracted local, regional and extra-regional students; this holds true for Berry College, Georgia Highlands College, Georgia Northwestern Technical College, and Shorter College. The city of Rome is also home to the Darlington School. Darlington is a 430-acre, internationally renowned private boarding school providing education from Pre-K to the 12th grade, and has an enrollment of approximately 900 students from 20 states and 24 countries.

4. Museums also have similar travel patterns. The Oak Hill Historical Site, the Myrtle Hill Historical Cemetery, the Rome Area History Museum, and the Chieftains Museum all located in and around the CBD attract visitors from both within and outside the Northwest Georgia Region;

5. Smaller communities in the region generally rely on medical services provided in the central city rather than their own community. In fact, many smaller communities in the region do not have a hospital. Special medical services and facilities offered by urban medical centers attract patients from all over the region as well as from other communities outside the region. Floyd Medical Center and Redmond Regional Medical offer special services relating to cancer and cardiovascular patients, respectively; and

6. Airports and terminal stations traditionally offer regional and statewide linkages. The Richard B. Russell Regional Airport provides through connections to Hartsfield-Jackson Airport in Atlanta for private users, while also serving the Northwest Georgia area with aviation related businesses and services.

Many of the roads previously listed in Table 1 have a major activity center located somewhere along the route. However, after reviewing the location of these centers, it was determined that additional streets and roads serve as regional facilities by providing access to major locales of activity within the attainment/maintenance area.


Linkages to
Major Activity Centers
Map 2
0 0.25 0.5 1
Miles
Riverside Parkway
Cave Spring Road
Lavender Drive
Redmond Road
Armuchee Connector
Map Prepared By:
The City of Rome - Floyd County
Planning Department

The table below provides a listing of these additional streets and highways that should be included in the regional system.

Table 2 Linkages to Major Activity Centers

Facility	Linkages	Functional Classification
Riverside Parkway	CBD with SR 1LO	Minor Arterial
Cave Spring Road	CBD with US 27/US 411	Minor Arterial
Lavender Drive	SR 20 with SR 1LO	Minor Arterial/Major Arterial
Redmond Road	US 27 with SR 1LO	Principal Arterial
Armuchee Connector	US 27 with SR 1LO	Local Road

In summary, the proposed Regionally Significant Facilities, as identified in this memorandum, represent a system which can be credibly used for conformity purposes in the Rome-Floyd County attainment/maintenance Area. Specifically this system contains:

1. 100% of the principal arterials identified on the network;

2. supporting facilities (i.e. minor arterials) that improve regional connectivity and access to major activity centers;

3. facilities that serve an important regional purpose, and

4. the above listed facilities that are resident in the network (i.e. model) for the Rome-Floyd County Study Area.

Accordingly, the system identified on the two attached Maps is recommended as the Regionally Significant Facility designation for the Rome-Floyd County Area.

Appendix E: Source Type Population Input Data Preparation

1) Date sources

2002-2003 Polk's data: Registration data from R. L. Polk & Co.'s National Vehicle Population Profile ® (current as of October 2002) and R. L. Polk & Co.'s TIPNet ® (current as of March 2003) are used. This database includes number of vehicles by age and 16 vehicle types in each Georgia county, and has been used to develop age distribution.

Georgia registration data (2003 and 2007): These registration data were obtained from www.georgiastats.uga.edu. This database includes number of vehicles by passenger vehicles, trucks, trailers, motorcycles, buses and others in each county as explained on the Georgia Department of Revenue website (http://motor.etax.dor.ga.gov/stats/renewalsstats.aspx). Passenger Vehicles include Ambulances, Convertibles, Coupes, Hearses, Jeeps, Limousines, Mixers, Motor Homes, Multi-Purpose Vehicles, Roadsters, Station Wagons, Touring Cars, Vans, 2 Doors, 3 Doors, and 4 Doors. Trucks include Truck Tractors, Trucks, and Wreckers.

2) Methodology

The Polk's data were summarized by 16 vehicles types in each county and then grown to 2007 using different growth factors by vehicle types (Table 1). The number of HDBS, HDBT and MC in Polk's data is comparable to Georgia registration data (Table 2 and Table 3). Therefore, the numbers of HDBS and HDBT were grown to 2007 by multiplying ratios of the number of buses in Georgia motor vehicle registration data in 2007 and 2003. The number of MC was grown to 2007 by multiplying ratios of the number of motor cycles in Georgia motor vehicle registration data in 2007 and 2003. The number of the rest of vehicle types was grown to 2007 by multiplying ratios of human population in 2007 and 2002. The Georgia motor vehicle registration data were not used for these vehicle types due to the difficulty to match the vehicle type used in Georgia motor vehicle registration data to the 16 vehicle types as used in the Polk's data. Since the ratios of 2007 and 2003 passenger cars and trucks in motor vehicle registration data are comparable to the ratios of population data (Table 4), population data were used as the growth indicator.

Table 1. List of different growth factors used by vehicle types

Vehicle types	Growth factor
HDBS	Georgia registration data (2003 and 2007), Buses
HDBT	Georgia registration data (2003 and 2007), Buses
HDV2B	Population 2002 and 2007
HDV3	Population 2002 and 2007
HDV4	Population 2002 and 2007
HDV5	Population 2002 and 2007
HDV6	Population 2002 and 2007
HDV7	Population 2002 and 2007
HDV8A	Population 2002 and 2007
HDV8B	Population 2002 and 2007
LDT1	Population 2002 and 2007
LDT2	Population 2002 and 2007
LDT3	Population 2002 and 2007

LDT4	Population 2002 and 2007
LDV	Population 2002 and 2007
MC	Georgia registration data (2003 and 2007), Motor cycles

Table 2. Summary of 2002-2003 Polk's data by 16 mobile vehicle types in four Georgia regions

Vehicle types	ATL13	ATL7	GAGAS	GAOTHER	Total
HDBS	7,854	1,333	2,032	8,221	19,440
HDBT	1,362	102	139	540	2,143
HDV2B	56,809	11,761	15,405	49,039	133,014
HDV3	27,628	5,996	7,822	23,797	65,243
HDV4	13,623	2,262	2,850	10,351	29,086
HDV5	6,005	1,162	1,550	5,577	14,294
HDV6	19,294	4,088	5,932	21,688	51,002
HDV7	16,380	2,528	3,838	15,309	38,055
HDV8A	37,555	4,307	6,619	31,883	80,364
HDV8B	14,449	2,201	3,061	10,926	30,637
LDT1	722,044	131,873	181,393	607,189	1,642,499
LDT2	95,101	28,933	37,692	156,187	317,913
LDT3	302,139	62,530	75,409	284,851	724,929
LDT4	43,616	8,019	9,721	39,432	100,788
LDV	1,723,769	255,647	346,907	1,383,696	3,710,019
MC	50,081	10,657	13,767	41,123	115,628

Table 3. Summary of 2003 Georgia registration data by 4 mobile vehicle types

Vehicle types	ATL13	ATL7	GAGAS	GAOTHER	Total
Buses	10,676	1,559	2,434	9,797	21,237
Trucks	558,496	168,930	237,022	823,867	1,788,315
Passenger Cars	2,259,027	339,456	449,177	1,744,474	4,792,134
Motorcycles	46,836	10,203	13,124	38,561	108,724

Table 4. Comparison between different growth factors

				Ratios	
	2002	**2003**	**2007**	**2007/2002**	**2007/2003**
Motor vehicle registration					
Passenger Car		4,792,134	5,330,256		1.112
Trucks		1,788,315	1,952,470		1.092
Motor Cycle		108,724	174,617		1.606
Bus		21,237	35,124		1.654
Population in Georgia, U.S. Census					
Population	8,585,535	8,735,259	9,533,761	1.110	1.091
Total Average Annual Daily VMT in Georgia, Georgia DOT 445 report, miles					
VMT	292,562,380	296,810,994	305,327,543	1.044	1.029
MOVES national SALESGROWTH factor defaults					
Motorcycle				1.383	1.311
Passenger Car				0.940	1.001
Passenger Truck				0.972	0.948
Light Commercial Truck				0.972	0.948
Intercity Bus				1.353	1.268
Transit Bus				1.353	1.268
School Bus				1.353	1.268
Refuse Truck				1.353	1.268
Single Unit Short-haul Truck				1.353	1.268
Single Unit Long-haul Truck				1.353	1.268

Motor Home				1.353	1.268
Combination Short-haul Truck				1.464	1.405
Combination Long-haul Truck				1.464	1.405

The projected 2007 vehicle population by 16 vehicle types in each county were then converted to 32 vehicles types, which were matched with 28 vehicle types and 12 vehicle types (corresponding to 12 SCC codes) as shown in the EPA MOVES converter tool. The EPA MOVES converter tool was also used to convert vehicle population in MOVES format by each of the four reference counties. These populations are the sum of populations of all counties sharing the same reference counties. The 2007 vehicle population was grown to future year population using the growth in population as a surrogate.

Appendix F: List of Acronyms

List of Acronyms

ADA	Americans with Disabilities Act
ACS	American Community Survey
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAC	Citizens Advisory Committee
CST	Construction
EJ	Environmental Justice
EPA	Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FAST	Fixing America's Surface Transportation Act
GDOT	Georgia Department of Transportation
GIS	Geographic Information System
GPS	Global Positioning System
ITS	Intelligent Transportation System
LRTP	Long Range Transportation Plan
MAP-21	Moving Ahead for Progress in the 21st Century Act
MOU	Memorandum of Understanding
MPA	Metropolitan Planning Area, herein referring to the Rome-Floyd County Metropolitan Planning Area
MPO	Metropolitan Planning Organization, herein referring to the Rome-Floyd County Metropolitan Planning Organization
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NS	Norfolk Southern Railway
PE	Preliminary Engineering
PIP	Public Involvement Plan
PL	Planning
PM	Particulate Matter
ROW	Right-of-way
RTD	Rome Transit Department
SPLOST	Special Purpose Local Option Sales Tax
SRTS	Safe Routes to School
STIP	State Transportation Improvement Program
TAP	Transportation Alternatives Program
TAZ	Traffic Analysis Zone
TCC	Technical Coordinating Committee
TDM	Travel Demand Model
TIP	Transportation Improvement Program

TPC	Transportation Policy Committee
UPWP	Unified Planning Work Program
UTL	Utilities

Appendix G: LRTP Fiscally Constrained Project List

PI#	Project	From	To	Phase	Cost	Projected YOE	Projected Cost Increase (Low-range)	Projected Cost Increase (Mid-Range)	Projected Cost Increase (High Range - Upper Year of Project Band)	Exempt Status/Section /Horizon Year
2016-2023										
621600	South Rome Bypass	SR101/Rockmart Road	SR1/US27 at Booze Mountain Road	UTL	$ 3,626,420	2017	$3,626,420	$3,626,420	$3,626,420	Non-Exempt, 2023
621600	South Rome Bypass	SR101/Rockmart Road	SR1/US27 at Booze Mountain Road	CST	$ 46,664,796	2017	$46,664,796	$46,664,796	$46,664,796	Non-Exempt, 2023
0013718	SR1/SR20/SR27 @Etowah River & NS#719103R			PE	$ 500,000	2016	$ 500,000	$500,000	$500,000	Exempt, 93.126
0013718	SR1/SR20/SR27 @Etowah River & NS#719103R			ROW	$ 250,000	2018	$ 250,000	$250,000	$250,000	Exempt, 93.126
0013718	SR1/SR20/SR27 @Etowah River & NS#719103R			CST	$ 7,622,154	2020	$ 7,622,154	$7,622,154	$7,622,154	Exempt, 93.126
0013937	SR1/US27 @Big Dry Creek			PE	$500,000	2017	$500,000	$500,000	$500,000	Exempt, 93.126
0013937	SR1/US27 @Big Dry Creek			ROW	$ 250,000	2019	$ 250,000	$250,000	$250,000	Exempt, 93.126
0013937	SR1/US27 @Big Dry Creek			CST	$3,500,000	2020	$3,500,000	$3,500,000	$3,500,000	Exempt, 93.126
632760	SR101 Interchange	SR 1/ SR 20 / SR 53 / US 411	-	ROW	$ 4,312,533	2018	$4,312,533	$4,312,533	$4,312,533	Non-Exempt, 2023
650540	SR1/SR101	West 3rd Street	SR1/SR20	UTL	$ 1,559,150	2019	$1,559,150	$1,559,150	$1,559,150	Exempt, 93.126
650540	SR1/SR101	West 3rd Street	SR1/SR20	CST	$ 5,213,593	2019	$5,213,593	$5,213,593	$5,213,593	Exempt, 93.126
662420	Southeast Rome Bypass	SR101 NE	US411	UTL	$ 22,363,623	2018	$22,363,623	$22,363,623	$22,363,623	Non-Exempt, 2023
662420	Southeast Rome Bypass	SR101 NE	US411	CST	$ 37,770,019	2018	$37,770,019	$37,770,019	$37,770,019	Non-Exempt, 2023

0007019	SR140/Turkey Mountain Widening	SR1/US27	SR53	PE	$ 5,045,631	2023	$5,045,631	$5,045,631	$5,045,631	Non-Exempt, 2023
	Maintenance				$ 5,942,073		$5,942,073	$5,942,073	$5,942,073	
					$139,177,919		$139,177,919	$139,177,919	$139,177,919	
2024-2030										
0000400	SR101 Widening	South Rome Bypass	CR740/McCord Road	ROW	$12,280,162	2024	$12,280,162	$12,529,474	$12,778,786	Non-Exempt, 2030
0000400	SR101 Widening	South Rome Bypass	CR740/McCord Road	UTL	$ 4,678,501	2026	$4,678,501	$4,773,484	$4,868,467	Non-Exempt, 2030
0000400	SR101 Widening	South Rome Bypass	CR740/McCord Road	CST	$ 13,332,589	2026	$13,332,589	$13,603,267	$13,873,946	Non-Exempt, 2030
621690	SR101 Widening	CR 740/Saddle Trail	CR 335/Lombardy Way	UTL	$3,631,289	2028	$3,631,289	$3,705,011	$3,778,734	Non-Exempt, 2030
621690	SR101 Widening	CR 740/Saddle Trail	CR 335/Lombardy Way	CST	$17,811,346	2028	$17,811,346	$18,172,952	$18,534,558	Non-Exempt, 2030
632760	SR101 Interchange	SR 1/ SR 20 / SR 53 / US 411		UTL	$1,499,491	2026	$1,499,491	$1,529,934	$1,560,376	Non-Exempt, 2030
632760	SR101 Interchange	SR 1/ SR 20 / SR 53 / US 411		CST	$36,220,585	2026	$36,220,585	$36,955,935	$37,691,286	Non-Exempt, 2030
-	Maintenance	-	-	-	$7,063,258		$7,063,258	$7,063,258	$7,063,258	
		-	-		$89,453,963		$89,453,963	$91,270,058	$93,086,153	
2031-2040										
0006019	SR 20 Widening	SR100	Alabama State line	PE	$2,432,401	2040	$2,432,401	$2,600,350	$2,768,299	Non-Exempt, 2040
621740	Cave Spring West Bypass	SR100	SR53	PE	$528,000	2037	$528,000	$564,457	$600,913	Non-Exempt, 2040
-	Maintenance	-	-	-	$13,886,993		$13,886,993	$13,886,993	$13,886,993	
					$2,960,401		$2,960,401	$3,164,807	$3,369,212	
	* Local Funding not calculated in Project, Low, Mid, or High Range Totals				**Project Costs**		**Low-range Total**	**Mid-Range Total**	**High Range Total**	
					$231,592,283		$231,592,283	$233,612,784	$235,633,284	
				Local Funding*						
13533	SR101 Interchange			ROW	$689,037	2017	$689,037	$689,037	$689,037	Exempt, 93.126

13533	SR101 Interchange			UTL	$1,580,715	2017	$1,580,715	$1,580,715	$1,580,715	Exempt, 93.126
632760	SR101 Interchange	SR 1/ SR 20 / SR 53 / US 411		UTL	$1,070,880	2026	$1,070,880	$1,070,880	$1,070,880	Non-Exempt, 2023
					$3,340,632		$3,340,632	$3,340,632	$3,340,632	

Appendix H: Approval Letters from FHWA/FTA

LETTER HERE