Southern Georgia Regional Commission

Valdosta-Lowndes MPO

An Equal Opportunity Employer / Program

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Valdosta-Lowndes
Metropolitan Planning Organization

Adopted – September 14, 2010

Southern Georgia Regional Commission

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This document is prepared in cooperation with the Georgia Department of Transportation, the Federal Highway Administration and Federal Transit Administration.

Cover art design by April Wiggins, Valdosta Technical College; Class of 2010.

Adoption Resolution

RESOLUTION FY2011 - 2

VALDOSTA-LOWNDES
METROPOLITAN PLANNING ORGANIZATION
POLICY COMMITTEE

RESOLUTION TO Adopt the 2035 Long Range Transportation Plan

WHEREAS, in accordance with the U.S. Bureau of the Census officially designated Urbanized Area Boundaries established May 1, 2002; and

WHEREAS, the Southern Georgia Regional Commission has been designated by the Governor of Georgia as the Metropolitan Planning Organization (MPO) for the Valdosta-Lowndes Urbanized Area in accordance with Federal requirements of Title 23, Section 134 of the United States Code to have a Cooperative, Comprehensive and Continuous transportation planning process; and

WHEREAS, the MPO conducts federally-required transportation planning activities that will improve the transportation system and help coordinate the area's future growth within the area bounded, at minimum, by the existing Urbanized Area plus the contiguous area expected to become urbanized within the next 20 years; and

NOW, THEREFORE BE IT RESOLVED, that the Valdosta-Lowndes Metropolitan Planning Organization's Policy Committee adopts the 2035 Long Range Transportation Plan as required by Title 23 (USC 134 Section 450.322) and pursuant to the Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU).

CERTIFICATION

I hereby certify that the above is a true and correct copy of a Resolution adopted by the Valdosta-Lowndes Metropolitan Planning Organization Policy Committee at a meeting held on September 14, 2010.

John J. Fretti, Mayor of Valdosta
Chair, Valdosta-Lowndes Metropolitan Planning Organization

Introduction

The 2035 Long Range Transportation Plan (LRTP) guides the transportation policies and projects to be implemented throughout the community over the next twenty-five years. The LRTP directs how our community plans to address its transportation needs, prioritizes those needs, and outlines funding resources for implementing projects from federal, state, local and private sources for highways, mass transit, multiuse trails, airports, and freight/intermodal facilities. This LRTP is designed to be a regional multi-modal transportation plan that addresses transportation needs through a coordinated, cooperative, continuing planning process led by the Southern Georgia Regional Commission as the Metropolitan Planning Organization for the Valdosta Urbanized Area.

Enabling Legislation

As required by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users of 2005 (SAFETEA-LU), at least every five years (four years in air quality non-attainment/maintenance areas, Lowndes County is in attainment) Metropolitan Planning Organizations (MPO) are required to produce a plan that shall "include both long-range and short-range program strategies/actions that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods." This 2035 Transportation Plan is the update to the Metro 2030 Transportation Plan adopted in 2007. In cooperation with the Georgia Department of Transportation, the Valdosta-Lowndes MPO is developing a new twenty-year horizon Transportation Plan to remain on a consistent timeline with other Georgia MPOs and the State Transportation Plan.

Eight Planning Factors

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users was signed into law by President Bush in 2005. Included are eight planning factors that are required for consideration in metropolitan transportation plans as follows:

"The metropolitan planning process for a metropolitan planning area under this section shall provide for consideration of projects and strategies that will –

- *(A) support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency*
- *(B) increase the safety of the transportation system for motorized and nonmotorized users;*
- *(C) increase the security of the transportation system for motorized and nonmotorized users;*
- *(D) increase the accessibility and mobility options available to people and for freight;*
- *(E) protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;*
- *(F) enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;*
- *(G) promote efficient system management and operation; and*
- *(H) emphasize the preservation of the existing transportation system."*

In early 2009, Governor Sonny Perdue and the Georgia State Legislature passed the Transforming Transportation Investment Act. Among other things this act outlined several investment policies:

"The [State-wide Strategic Transportation] plan shall be developed with consideration of investment policies addressing:

1. *Growth in private-sector employment, development of work force, and improved access to jobs;*
2. *Reduction in traffic congestion;*
3. *Improved efficiency and reliability of commutes in major metropolitan areas;*
4. *Efficiency of freight, cargo, and goods movement;*
5. *Coordination of transportation investment with development patterns in major metropolitan areas;*
6. *Market driven travel demand management;*
7. *Optimized capital asset management;*
8. *Reduction in accidents resulting in injury and loss of life;*
9. *Border-to-border and interregional connectivity; and*
10. *Support for local connectivity to the state-wide transportation network."*

Forecasting Future Transportation Needs

The Valdosta-Lowndes MPO (VLMPO) and the Georgia Department of Transportation (GDOT) cooperatively maintain a Travel Demand Forecasting (TDF) Model. VLMPO and GDOT together use software created by Citilabs called Cube 5 to run the TDF model for the region. All of the MPO's in Georgia use the Cube 5 TDF software. Under SAFETEA-LU, MPO's are required to update their transportation plans (and transportation models were applicable) every five years (four years in air quality non-attainment/maintenance areas, Lowndes County is in attainment) using the most up-to-date data and growth assumptions as part of the update process. Cube 5 like other TRF software is designed to project or forecast traffic volumes (the number of cars on a given segment of road every day) into the future. The program uses area specific information about population, school enrollment, household size, auto ownership, travel patterns, journey-to-work data, employment, income data and road specific data, such as facility type, functional classification, current traffic volumes etc.

A more detailed description of the model, socio-economic inputs, and methodology are discussed later in this document.

Using the Cube 5 software program along with the local geographic information system (GIS), the original network of roads and highways, which are functionally classified (i.e. principal arterial, minor arterial, collector, etc.), were updated for the 2006 model base year. The network is segmented into links with each link representing a stretch of road. The current network has 5,738 links.

The region (Lowndes County and portions of Berrien and Lanier Counties) is divided into sections called Transportation Analysis Zones (TAZ). The region has 424 TAZs (399 are internal to the Metropolitan Planning Area, defined as Lowndes County and the Urbanized portions of Berrien and Lanier Counties, also MPA, and 25 are external stations). These TAZs are used to aggregate socio-economic data for the base year (2006), interim years, and the target year of 2035. A more detailed explanation of the model and the model output can be found in the "LRTP Network Model" section of this report.

The 2035 TDF model sets the stage and provides the data necessary for the identification of projects. The model can forecast the levels of service and how traffic patterns may change given one scenario or another. The TDF becomes an important tool in project identification and selection, in that it provides decisionmakers with the tools that set the stage for future transportation efficiency. The effectiveness of a region's overall transportation system has a great positive or negative impact on economic growth and the area's quality of life issues, which is to some extent dependent on sound data, early planning and good decision-making.

Priorities and Implementation

The development of the VLMPO 2035 LRTP began with a discussion of goals and objectives at a Citizen's Advisory Committee (CAC) meeting. Local morning radio show host Scott James opened the discussion by sharing what the Valdosta-Lowndes region meant to him, his business, and why thinking at a regional level is important. The CAC then shared and discussed their thoughts on a vision for regional transportation, where we are currently, and what needs to be done to reach a regional vision. Out of this discussion came the basis for the VLMPO 2035 Vision Statement:

> *To develop a connected, efficient, safe, sustainable, responsive, regional, multi-modal transportation system that fosters economic development, coordinated land use, improved quality of life, and that is accessible to the public.*

From this vision statement several priority statements were developed by staff and reviewed by the MPO's Committees that included implementation strategies and evaluation measures.

In order to get more input on the transportation priorities of the region, the MPO staff met with the Greater Lowndes Growth Advisory Committee (GLGAC), a group of involved business and government leaders that meet quarterly to discuss growth and development in the region. The GLGAC has been used in the past to aid local planning staff in developing and updating the Greater Lowndes County Comprehensive Plan. When asked about the priorities for transportation in 2035, the members of this group identified the creation of a public transit system, the improvement of sidewalks and railroad crossings, and more aesthetically pleasing roadways.

This input was combined with input from the MPO committees to develop the three priority statements and their implementation strategies, and evaluation measures.

- Develop a sustainable and safe regional transportation system that includes all modes for the transport of people and goods that promotes economic development.

- Encourage the MPO, SGRC and their member communities to cooperatively consider land use decisions by encouraging public participation and involvement in the transportation planning process.

- Promote an aesthetically pleasing, sustainable, transportation system that respects the needs of, and mitigates and/or enhances the impacts on disadvantaged populations and the context of the nearby built and natural environments.

These priorities and implementation strategies are used throughout this plan to guide the selection of projects to be completed over the next twenty-five years. Used as a guide for the VLMPO Policy Committee and staff in carrying out the implementation strategies and to ensure the plan is carried out in an efficient manner. These priorities will become the base for the work the MPO will complete over the next few years whether it is additional planning studies or actual implementation of capital improvements.

Table 1: 2035 Transportation Plan Priorities and Implementation Strategies

Priority 1:	**Develop a sustainable and safe regional transportation system that includes all modes for the transport of people and goods that promotes economic development.**	
	Implementation Strategies	**Evaluation Measures**
1.1	Develop safe transportation corridors that efficiently connect regional activity centers, reduce travel time and vehicle miles travelled	Evaluate the level of service on roadways to and from activity centers, especially east-west routes.
1.2	Develop a transportation system that is efficient for freight movement, while providing for the efficient movement of non-rail vehicular traffic through the region	Evaluate number of jobs in freight intensive industries and conduct travel time studies to evaluate wait times at at-grade crossings
1.3	Enhance and develop secure, coordinated public transit, especially for the transportation disadvantaged, to serve the entire region that promotes economic development	Implementation of a coordinated public transit system in the Valdosta Urbanized Area
1.4	Preserve transportation corridors for future multi-modal transportation system improvements that reduce bottlenecks and promote alternative modes	Work with local land use agencies to analyze future improvements to ensure they will accommodate planned multi-modal improvements
1.5	Develop interconnected bike and pedestrian facilities and amenities through the implementation of projects and policies	Number of bike and pedestrian facilities implemented and/or interconnected
1.6	Coordinate transportation improvements with local economic development organizations to support business and tourism growth	Evaluate net number of jobs gained near transportation improvements
Priority 2:	**Encourage the MPO, SGRC and their member communities to cooperatively consider land use decisions by encouraging public participation and involvement in the transportation planning process.**	
	Implementation Strategies	**Evaluation Measures**
2.1	Create opportunities for public involvement in the planning process and mitigate impacts to low-income and minority populations	Annually evaluate public involvement effectiveness through number of persons contacted and events held
2.2	Develop public information opportunities for all ages regarding traffic safety, biking and walking safety, and the planning process	Produce documents for education and public information, including annual crash reports and intersection safety audits
2.3	Prioritize transportation investments using objective criteria to select projects	Develop criteria for implementing transportation investments
2.4	Promote public/private partnerships to enhance funding opportunities	Evaluate number of public/private partnerships accomplished
2.5	Encourage cooperative land use strategies that minimize sprawl and mitigate adverse environmental impacts	Evaluate land development outside of urban service areas
2.6	Coordinate projects and policies with adjacent communities to reduce urban sprawl and prioritize regionally significant projects	Number of multi-jurisdictional or coordinated transportation improvement projects/policies
Priority 3:	**Promote an aesthetically pleasing, sustainable, transportation system that respects the needs of, and mitigates and/or enhances the impacts on disadvantaged populations and the context of the nearby built and natural environments.**	
	Implementation Strategies	**Evaluation Measures**
3.1	Preserve and enhance the context and aesthetics of the natural and built environments, encourage the enhancement of gateways and corridors throughout the community	Evaluate context sensitive solutions implemented in transportation projects and policies
3.2	Support 'green' transportation (fuels and materials), and develop infrastructure for alternative modes of transportation	Report use of alternative fuels and infrastructure projects for alternative modes of transportation
3.3	Improve and develop an aesthetically pleasing regional activity center way-finding and signage system for residents and visitors	Report on signs installed and public acceptance of new signage

VLMPO Organization and Processes

The Southern Georgia Regional Commission (SGRC) is the designated Metropolitan Planning Organization (MPO) for the Valdosta Urbanized Area. The Valdosta-Lowndes MPO (VLMPO) is mandated by the Federal Highway Act of 1962 (and subsequent re-authorizations) to perform the transportation planning activities within the urbanized area. The legislation ensures that there will be a "continuing, cooperative and comprehensive" (referred as "3-C") planning process involving federal, state and local agencies, as well as citizens and other affected stakeholders.

The process involves collaboration among various governmental agencies and results in a consensus regarding the transportation plans for that urbanized area. Figure 1 (on the following page) displays the Valdosta Urbanized Area and Metropolitan Planning Area which includes all of Lowndes County and portions of Berrien and Lanier Counties.

Policy Committee

The Policy Committee is a forum for cooperative decision making by principal elected and appointed officials of the general purpose local governments and inter-modal transportation providers. The Policy Committee is also responsible for taking into consideration the recommendations from the Citizen's Advisory Committee and the Transportation Coordinating Committee when adopting plans or setting policy. The Policy Committee has final authority in the matters of policy and adoption of plans.

The current membership of the VLMPO includes the Chairman of the Lowndes County Board of Commissioners, the Mayor of the City of Valdosta, the Lowndes County and City of Valdosta Managers, the Executive Director of the SGRC, an annually rotating Mayor of the smaller cities of Lowndes County (beginning July 1, 2010 the Mayor of Hahira serves this role), and the Commissioner of the Georgia Department of Transportation.

The Policy Committee, with input from the Citizens Advisory Committee and Technical Coordinating Committee, annually revises and adopts the Transportation Improvement Program and other documents, resolutions, amendments, etc. in order to comply with the federal regulations.

Transportation Coordinating Committee

The Transportation Coordinating Committee (TCC) membership includes staff from various federal, state, and local agencies and other associations who have a technical knowledge of transportation or planning. The TCC functions to assure the involvement of all operation departments, advisory agencies, and multi-modal transportation providers involved with the planning process and subsequent implementation of plans. The TCC evaluates transportation plans and projects based on whether or not they are technically warranted and financially feasible.

Citizen's Advisory Committee

The Citizens Advisory Committee (CAC) consists of volunteers who are interested in transportation issues. The CAC is responsible for keeping the Policy Committee informed of the community's perspective and also provides information to the community about

transportation policies and issues. The CAC ensures that the values and interests of the communities of Lowndes County are taken into consideration in the planning process.

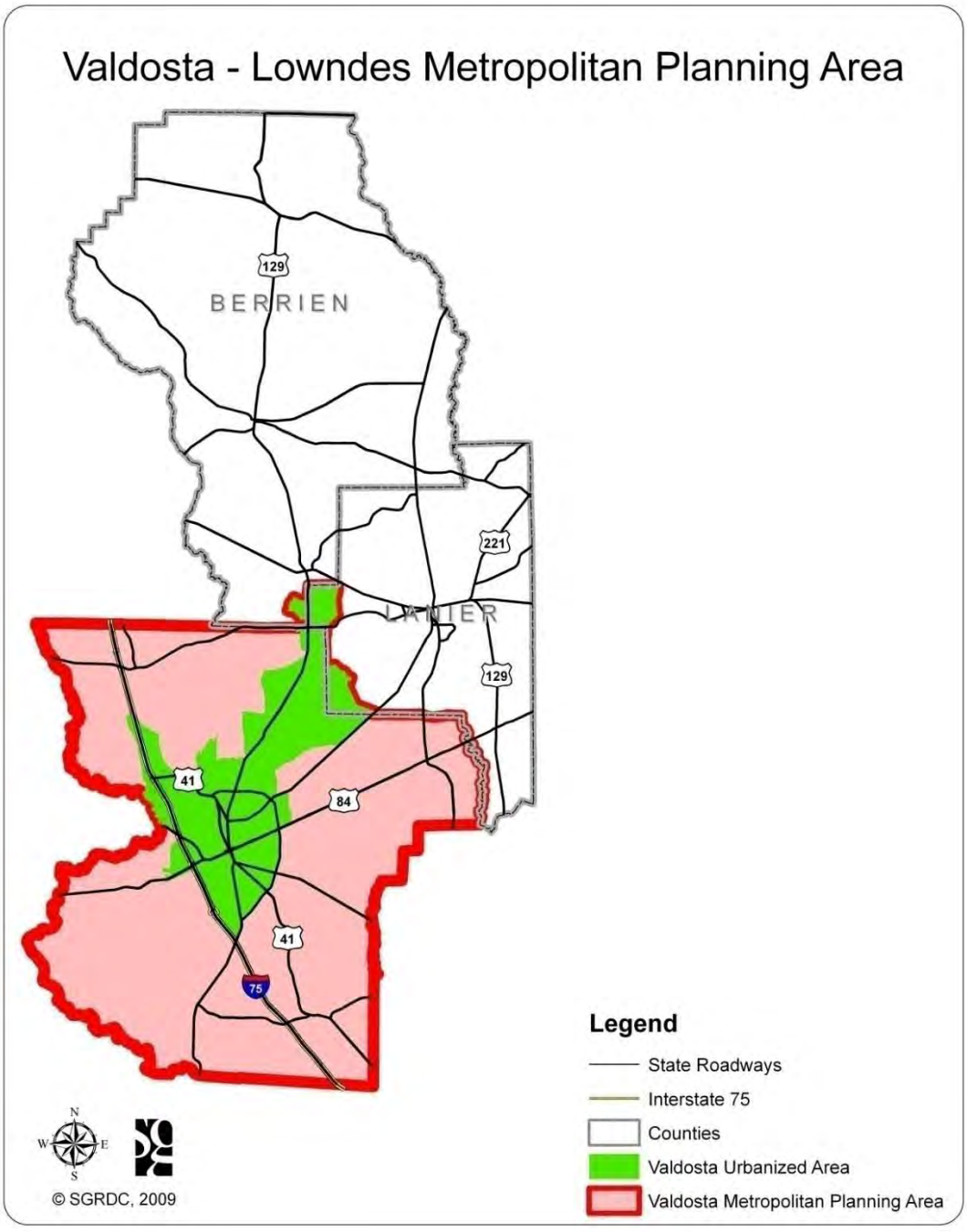


Figure 1 Valdosta Urbanized Area Boundary and VLMPO Metropolitan Planning Area

Existing Transportation System

The transportation needs of the residents, businesses and visitors to Lowndes County are met through a variety of modes of transportation. The existing transportation system is described here for some general background on the community.

Highways

Figure 2 I-75 NB at St. Augustine Road

Streets and roads in communities throughout the nation are designed in accordance with guidelines provided by the American Association of State Highway and Transportation Officials (AASHTO). The basic objective is to arrange the physical elements of the facility to meet the typical characteristics of drivers and vehicles. The land use and accessibility to and from parcels, geometrics, traffic control issues, posted speed, safety, and drainage as well as aesthetic qualities are also incorporated into roadway design.

The type of roadway or 'functional classification' is the process by which streets and highways are grouped into classes, and systems, according to the character of the traffic service that was intended. There are typically four functional classifications: Interstates, Arterials, Collectors, and local roads, divided into urban and rural systems. Figure 3 shows the functional classification of the highway network in the Region.

The Region is primarily serviced by I-75 and US 84. Major secondary routes include: US

41/Inner Perimeter Road, SR 133/St. Augustine Road, SR 125/Bemiss Road, and SR 31/Madison Highway.

Public Transit

Public transportation in the Region is currently provided by Berrien and Lowndes Counties. Each county contracts with MIDS Inc. to operate their respective demand response systems.

MIDS INC.

These two systems are funded through the Federal Transit Administration (FTA) 5311 program, and provide rural demand response public transit services to the residents of their respective counties. MIDS Inc. operates Monday through Friday 7:30 AM to 5:30 PM with a fare of $3.00 per one-way trip. MIDS Inc. also contracts with the SGRC to provide the FTA's 5310 or Department of Human Services Elderly and Disabled Program transportation services.

The SGRC in partnership with the Georgia Department of Human Services (DHS) provides transportation services in an eighteen county service area including, Lowndes, Berrien and Lanier Counties. These services are primarily funded through the Federal Transit Administration 5310 program and include transporting seniors age 60 and over. Through the Department of Family and Children Services in each county the SGRC also offers transportation through the TANF (Temporary Assistance to Needy Families) program, whose clients are attending substance abuse treatment clinics approved by DHS.

Greyhound operates a station in downtown Valdosta which provides direct service to Orlando, FL and points south, as well as Atlanta, GA and points north.

Pearl Executive Shuttle provides transportation to nearby airports like Atlanta's Hartsfield-Jackson International Airport, Jacksonville International Airport and Tallahassee Regional Airport.

The VLMPO is currently studying the implementation of a fixed route public transit system in the Valdosta Urbanized Area, but no timeline is in place for the startup of this system.

Railroads

The Region is serviced by four freight railroad companies. Norfolk Southern and CSX Transportation provide the bulk of the freight railroad services in the Region. The Georgia Florida Railroad is a shortline railroad that provides services to Nashville, GA from Valdosta. The Valdosta Railway provides services between Valdosta and Clyattville, GA. Both Norfolk Southern and CSX Transportation run about 25 trains through the region each day, resulting in significant impacts to the region's economy and traffic patterns. Several grade crossings are proposed to alleviate congestion related to at-grade rail crossings and key highway corridors.

There is currently no passenger rail service in or near Valdosta.

Airports

The Valdosta Regional Airport provides commercial and general aviation services to the Region. American Southeast Airlines, a Delta Connection carrier, currently operates three daily flights to and from Atlanta's Hartsfield-Jackson International Airport. In 2008 the Valdosta Regional Airport enplaned 38,269 passengers, a 13% increase since 2000.

Bike and Pedestrian Transportation

In 2008, the City of Valdosta adopted its Transportation Master Plan, which included several improvements to bike and pedestrian facilities. Immediately the City began to construct and improve several miles of sidewalks throughout the City. In July 2009, the City of Valdosta opened its first on-street bike lanes along Sustella Avenue near the Valdosta State University Campus. This bike lane intersects with the Azalea City Trail which runs east-west through the community connecting several neighborhoods and activity centers.

There are two statewide bike routes that run through the region. State Route 10 runs east-west and State Route 15 runs north-south. A map of the existing bike and pedestrian facilities in the region is included in Figure 4.

Several more bike and pedestrian facilities are being planned and are included later in this regional transportation plan.

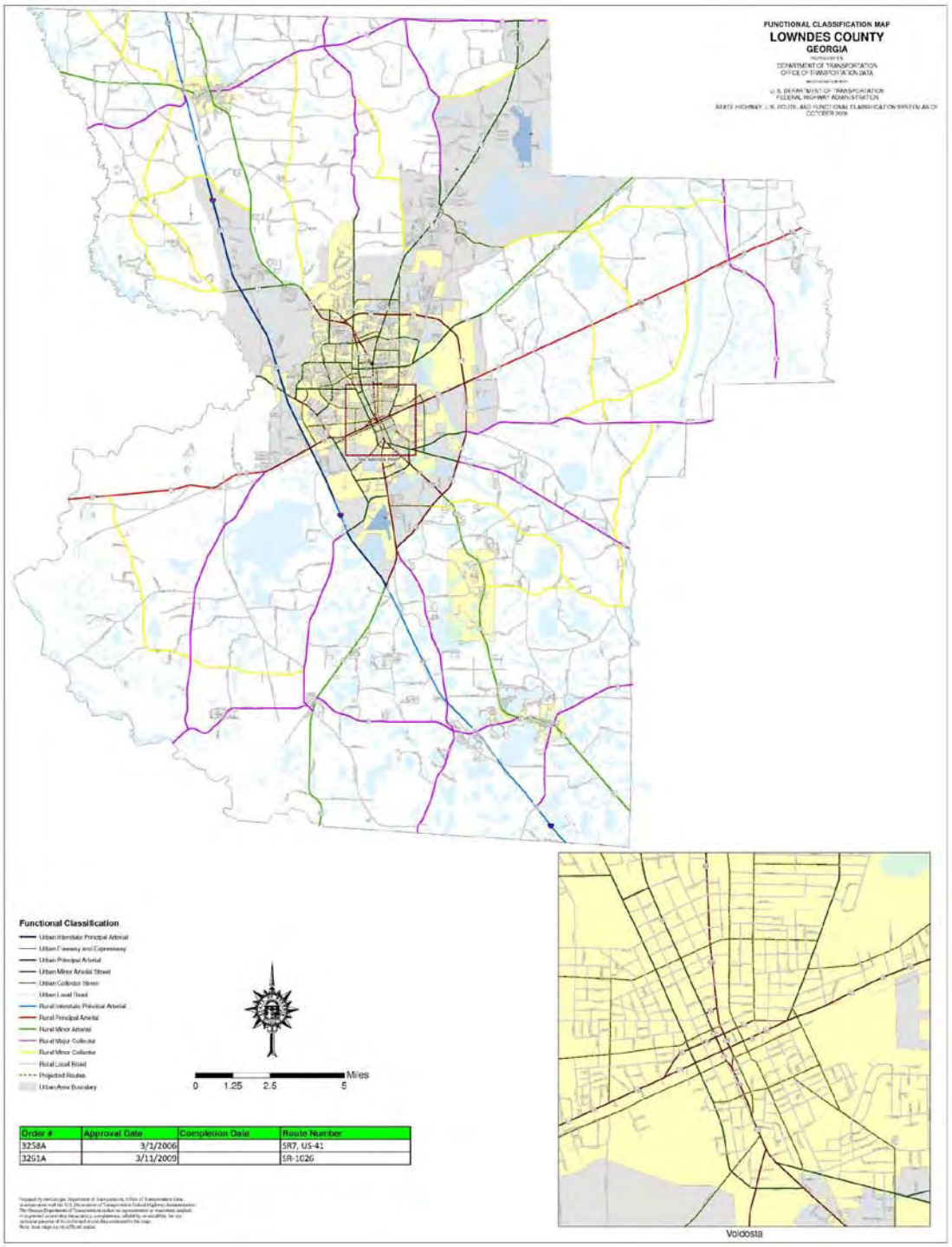


Figure 3 Lowndes County Highway Functional Classification. Source: GDOT

Freight Transportation

As described earlier, much of the freight and goods movement in the region is done on the two main railroads, however trucks carrying goods to, from and through the region make it a prime location for logistics and distribution companies to locate here.

The 2009 Freight Movement Study completed by the MPO outlined that the freight moving through the region by truck is heavily impacted by the seaports of Savannah, Jacksonville, Miami and Tampa. Valdosta's proximity to the intersection of I-75 and I-10 as well as US 84 has resulted in the influx of logistics companies and distribution centers that rely heavily on the region's transportation infrastructure.

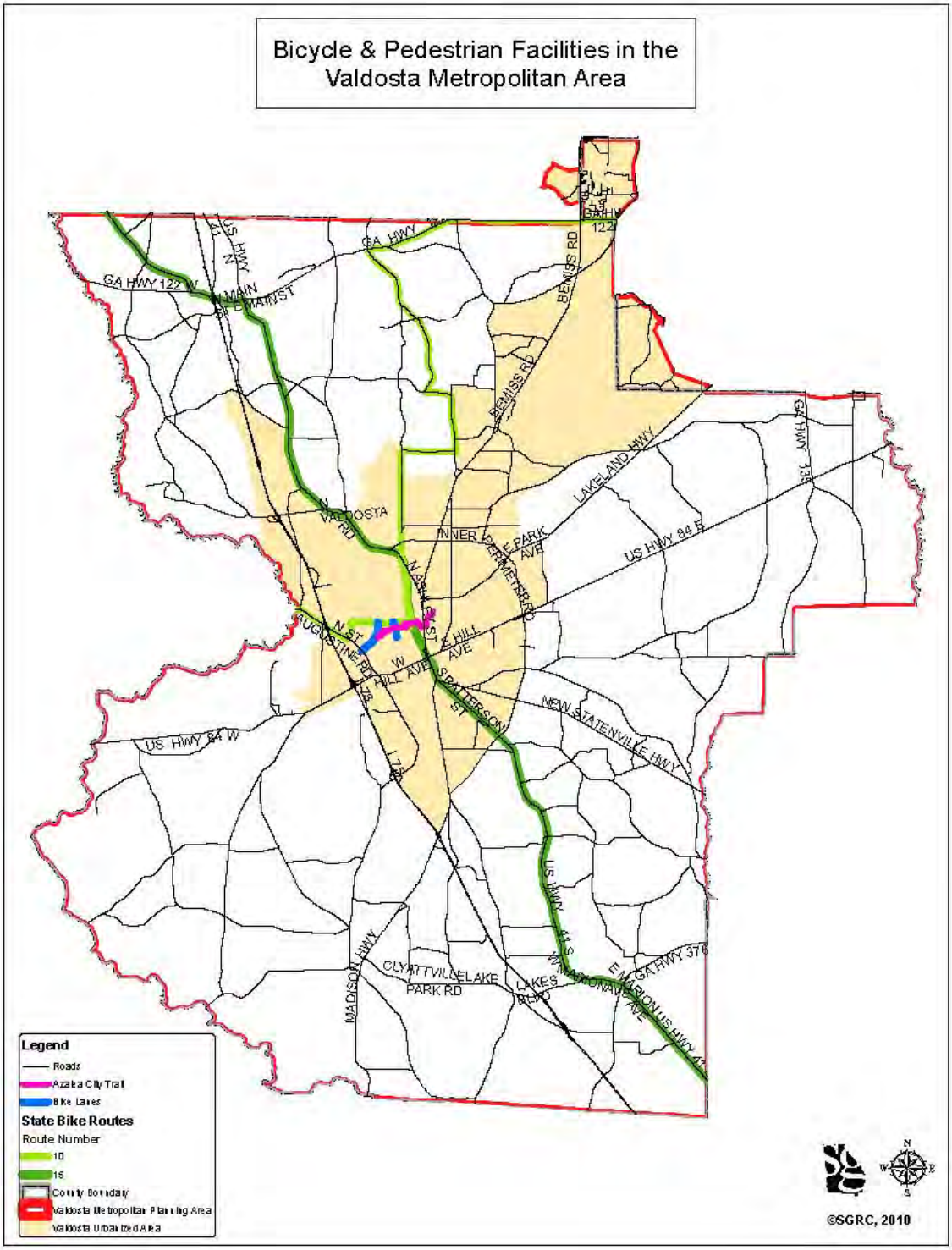


Figure 4 Existing Bike and Pedestrian Facilities in Region (excluding sidewalks)

Public Participation Process

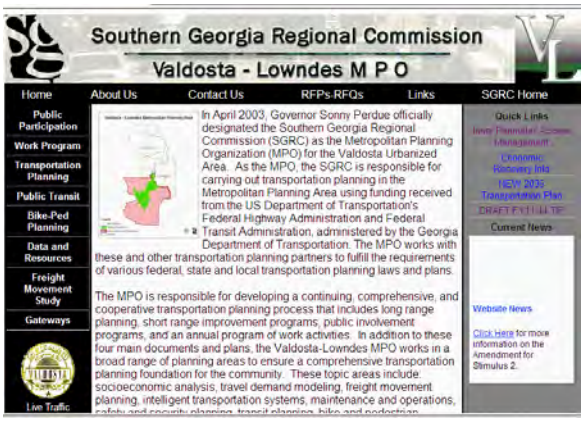
The public involvement process is outlined in the VLMPO's Public Participation Plan (PPP) that was adopted by the VLMPO Policy Committee on March 13, 2007. The PPP was developed not only to meet the statutory obligations (as detailed in SAFETEA-LU), but to provide a framework for public participation as related to the transportation planning decision making process. The PPP is available for review on the SGRC website at www.sgrc.us/transportation. Neglecting the public involvement component of the development of the LRTP can result in unnecessary delays, possible litigation, and erode the public trust in the planning process. The PPP is revisited regularly to ensure compliance with all federal and state laws regarding public participation and to ensure that the mechanisms described in the plan are the best means to provide meaningful public involvement opportunities for information dissemination in a timely and accurate manner. Furthermore the SGRC and VLMPO do not discriminate on the basis of disability as set forth in the Americans with Disabilities Act of 1992. The VLMPO further strives to fully comply with the Georgia Law on Open Public Meetings (OCGA 50-14-1, et seq.) and Inspection of Public Records Act (OCGA 50-18-70, et seq.)

The Public Participation process to develop the 2035 LRTP's vision statement, goals and objectives, and evaluation measures began with a workshop session in a Citizen's Advisory Committee (CAC) meeting on July 23, 2009 (see appendix for minutes). This workshop session began with an opening statement by the guest speaker Scott James, a local morning radio show host who regularly speaks about the importance of regionalism during his daily talk show. A brainstorming and visioning session followed the introduction from Scott James where the members of the CAC discussed their opinions and concerns about transportation in the region, where the region is currently, and where the region is going in the future.

In order to receive more public input on the vision statement, goals and objectives and evaluation measures, the MPO staff met with the Greater Lowndes Growth Advisory Committee. This Committee was set-up during the development of the Lowndes County 2030 Comprehensive Plan, and continues to be active in setting the goals, policies and implementation strategies for this plan. The Committee was asked three questions to gain input on what the goals and objectives of the 2035 LRTP should be. These questions included:

- What are some concerns you have with the transportation system in Lowndes County?
- What do you like about the transportation systems in other communities?
- What do you envision the transportation system in Lowndes County to look like in 2035?

The MPO staff took the information obtained from the CAC and the Growth Advisory Committee and compiled it into a draft vision statement, and draft goals, objectives, and evaluation measures. These items were approved by the MPO Policy Committee at their October 20, 2009 meeting.



The VLMPO made available on its website (www.sgrc.us/transportation) ongoing updates (public meeting announcements, public meeting materials, maps, project lists,

presentations, etc.) regarding the development of the 2035 LRTP throughout the plans' development.

On February 17, 2010, the VLMPO hosted an open house for the public and human and natural resource agencies. The attendees were invited to view the draft listing of projects in the 2035 Transportation Plan, and how these projects related to identified Environmental Justice areas, and natural, cultural and historic resources. The attendance record and comments from this meeting are included in the appendix.

A final public open house was held on Tuesday, July 20, 2010 from 3:00 PM to 8:00 PM at the Valdosta City Hall Annex. This open house was held to allow residents of the MPA to view the prioritized list of projects and the entire draft 2035 Transportation Plan. The announcement, attendance record, and comments from this meeting are included in the appendix. To maximize attendance, this meeting was co-hosted with the City of Valdosta's Gateways Concept Public Open House. The meeting room was shared by the two groups, but two separate public meetings took place so that the public did not have to choose which public meeting to attend.

The VLMPO received comments and input at various other times throughout the planning process. Comments were received by the various MPO committee members at each meeting where the 2035 TP was a topic of discussion; these meetings are open to the public. The MPO gave several presentations to the various community groups throughout the planning process where comments were received as well. Documentation of these meetings and presentations is available on the website at www.sgrc.us/transportation. Included in the appendix are the minutes from the VLMPO Citizen's Advisory Committee, Transportation Coordinating Committee, and Policy Committee meetings where the 2035 Transportation Plan was discussed.

Environmental Justice

In accordance with Title VI of the Civil Rights Act of 1964 and Executive Order 12898, the review of Environmental Justice areas is required for Federal agencies and federally funded programs. The three major principles of Environmental Justice (EJ) are:

- Provide full and fair participation by non-white and low income communities
- Avoid, minimize or mitigate disproportional impact to non-white and low income communities
- Ensure that low income and non-white citizens fully share benefits.

The VLMPO is required to make sure transportation plans and programs meet the EJ requirements for Title VI and Executive Order 12898. There is no prescribed methodology or manner in which these requirements are to be carried out. This has resulted in many different methodologies for identifying sectors of the population that are classified as EJ communities, the level and manner in which these individuals are involved in the process, and the measurement of benefits and burdens on this segment of the population.

During the 2035 Transportation Plan development process the staff worked closely with social service agencies and other minority groups, and faith based organizations to provide an opportunity for input into the transportation planning process.

The initial activity for fulfilling EJ requirements is identifying the location where this segment of the population resides within the study area. Though no standard exists for population identification, a common approach is to utilize US Census data to locate areas of concentration (geographically) of low-income or minority populations. The level of geography used to gain a regional perspective is the Census Tract level. Identifying non-white and low income

populations from Census data also requires choosing variables to use in determination of non-white and low income status. The maps on the following pages show the Census Tracts in the Lowndes County area that are identified as low income or have concentrations of minority populations. These maps are also overlaid with the projects identified later in this plan so that the impacts of these projects might be measured on EJ populations.

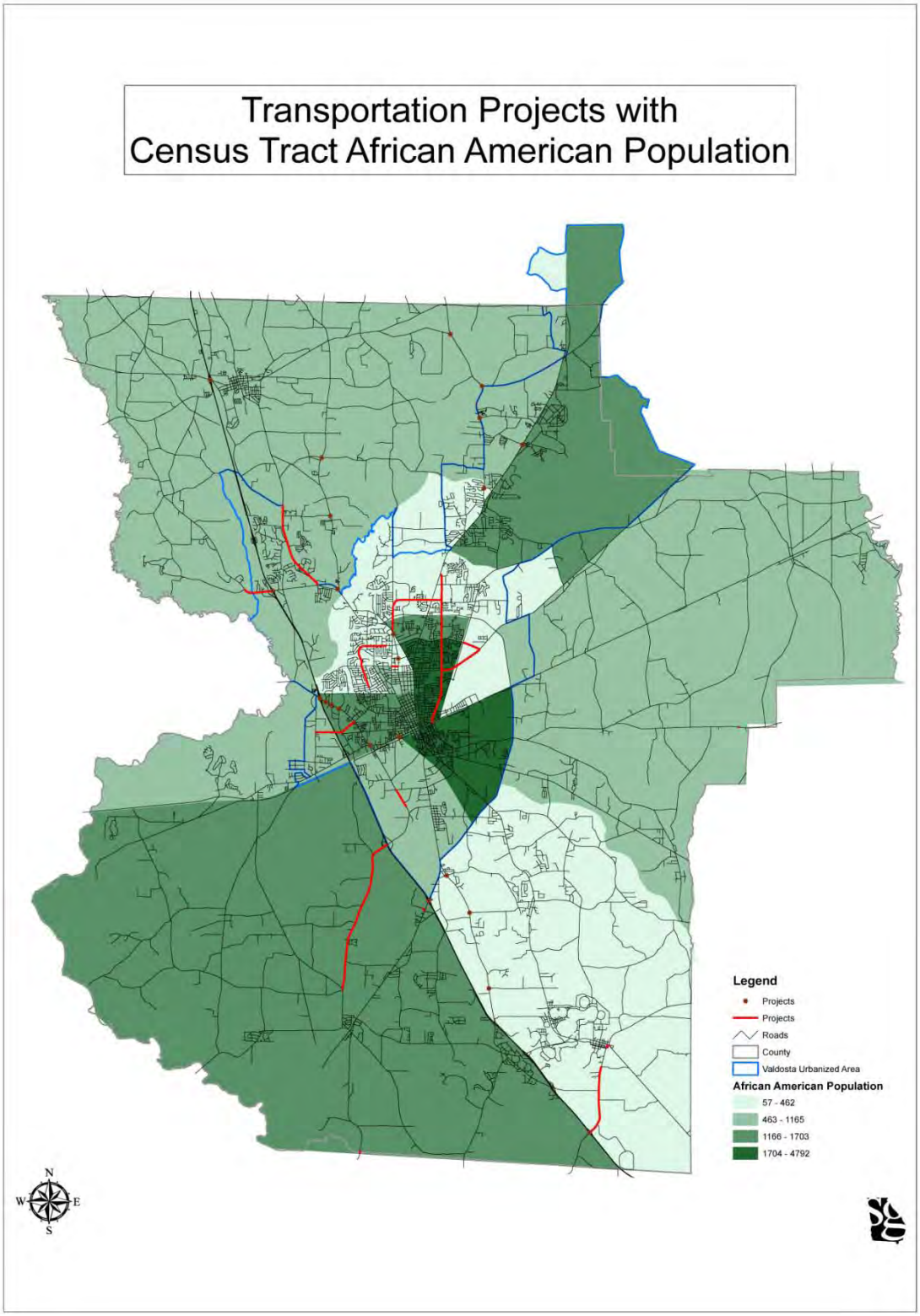
The Census Tracts in Berrien and Lanier Counties that are a part of the Metropolitan Planning Area (MPA) are included as if the entire tract was within the MPA. Any projects identified in this plan that affect these areas are treated as if they meet EJ requirements and will require additional mitigation and participation efforts during project implementation.

The data from the 2000 US Census shows that there were a total of 15,622 individuals (or 18.3%) of the Lowndes County population that were below the poverty level in 1999. There were also 35,403 individuals (or 38.4%) that were identified as non-whites and 2,447 persons (or 2.7%) identified as being of Hispanic or other ethnic groups.

Efforts to mitigate the negative impacts of transportation improvements on EJ populations can take many different directions. During the planning process EJ populations were targeted with a special public meeting (February, 17, 2010) as well as at other events where EJ populations were represented. The VLMPO mailing list contains various contacts for EJ populations and each edition of the quarterly newsletter contained an update on the Transportation Plan during the planning process (see website for newsletter archives). Some efforts that may be undertaken here in the VLMPO planning area include extra outreach efforts during the planning and design phases of project implementation to ensure that the local residents concerns about specific transportation issues are heard.

Other mitigation efforts that might be taken depend on the scope and characteristics of each project and are called context sensitive solutions. Context sensitive solutions are mitigation efforts undertaken during a project that reduce the impact of the transportation improvement on a neighborhood or special population or positively enhance the project's impact on a neighborhood or special population. Examples of context sensitive solutions that are used around the nation are noise barriers on major expressways near residential areas, additional landscaping areas to better fit the project into an existing community, enhanced design elements like period relevant lighting, fencing, sidewalks, or signage in areas where the aesthetics or the historical significance of the community are impacted.

Project designers and planners will work with local communities on a project-by-project basis to mitigate the impacts of transportation improvements on the built environment, environmental justice populations and the natural environment.


Transportation Projects with
Census Tract African American Population
Legend
Projects
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County
Valdosta Urbanized Area
African American Population
57 - 462
463 - 1165
1166 - 1703
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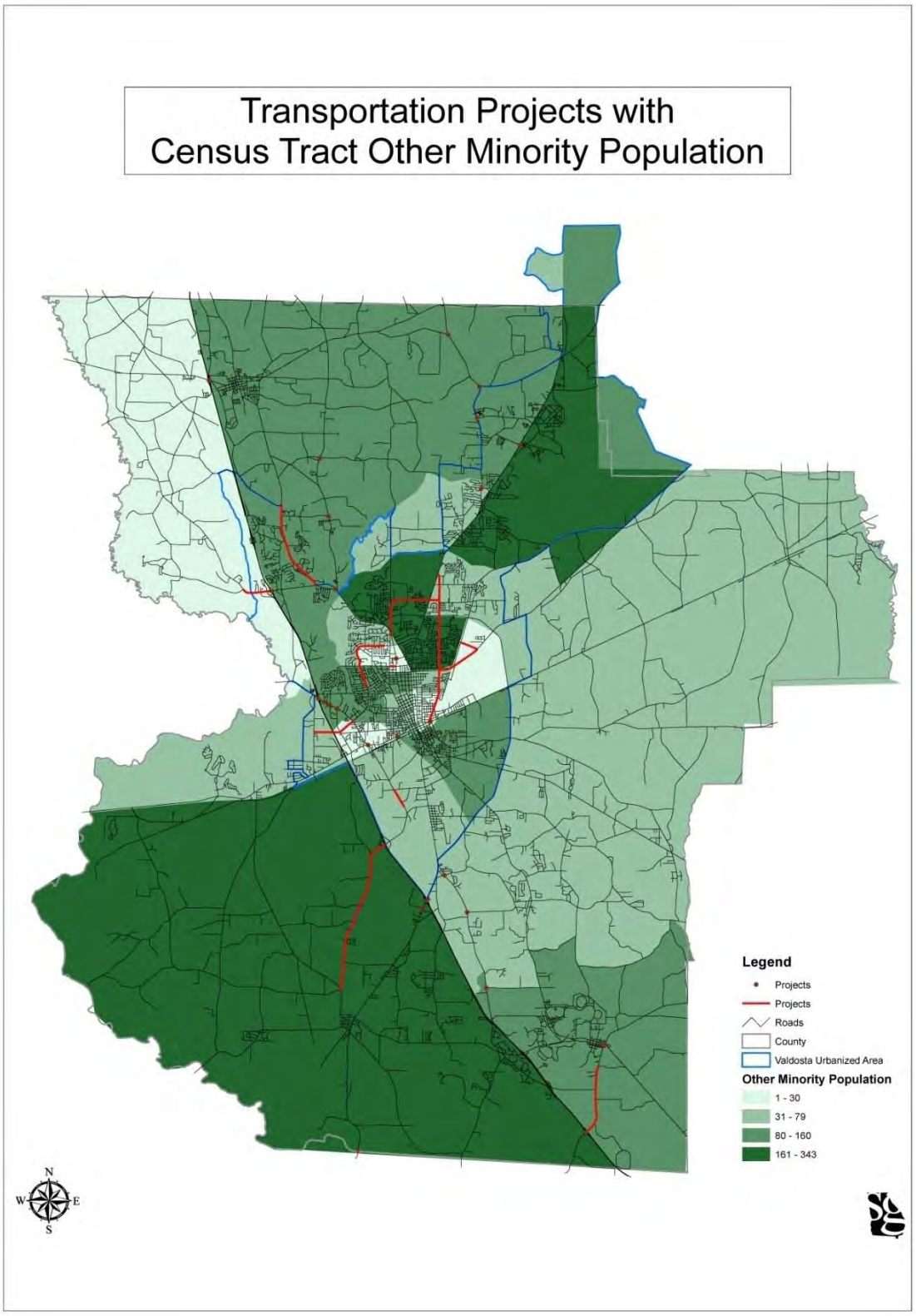
Transportation Projects with
Census Tract Other Minority Population
Legend
Projects
Projects
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County
Valdosta Urbanized Area
Other Minority Population
1 - 30
31 - 79
80 - 160
161 - 343
N
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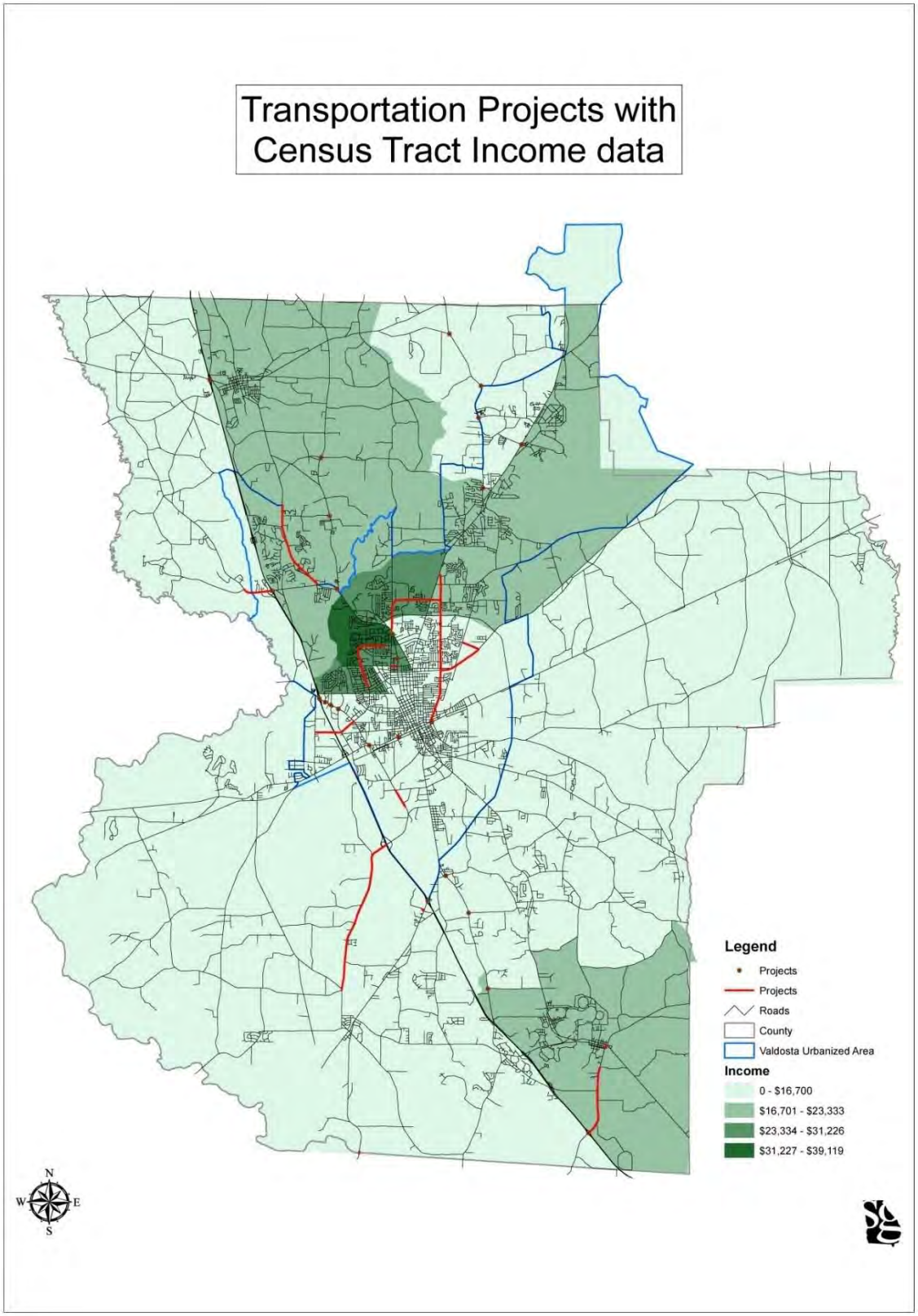
Transportation Projects with
Census Tract Income data
Legend
Projects
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Roads
County
Valdosta Urbanized Area
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LRTP Socioeconomic Data

The estimating techniques widely used in transportation studies have been based on established methodologies from the field of demography. The success of a long range plan depends in part on the reasonableness and credibility of the forecasts on which the plan is based. As discussed earlier, the four components of socioeconomic data needed for transportation modeling are: population, households, employment and school enrollment. These socioeconomic variables eventually become inputs to the trip generation models as discussed in the next chapter. The following sections will describe the process of developing the data control totals that were then allocated to the TAZ level for the base and future year TDF models.

In the past, local long range transportation plans were updated every ten years or so, when the Valdosta Urbanized Area became a metropolitan community after the 2000 US Census the plans are now required to be updated every five years (see previous comment about air quality attainment) under federal regulations, and must follow a prescribed planning process. In many cases, past socioeconomic projections were either shortsighted or over-estimated. With the advances of micro-computing (and associated software packages) the transportation planning process has become even more dynamic, requiring planners to provide timely answers to assist elected officials regarding decisions based on public policy and plans directed at our transportation infrastructure.

The MPO (which is responsible for overseeing the development of the socioeconomic forecasts) hired the Valdosta State University Center for Business and Economic Research to complete the socioeconomic forecasts for the base year and future year scenarios. The data was carefully reviewed and analyzed by local planners and GIS technicians to develop the final socioeconomic data to be used in the Travel Demand Forecasting model.

Socioeconomic Growth Trends

To prepare the socioeconomic data for this transportation plan, the VLMPO hired the Valdosta State University Center for Business and Economic Research to develop projections for various socioeconomic factors. A report entitled "Economic Projections through 2035 for Lowndes, Lanier and Berrien Counties" was prepared by Drs. Cliff Lipscomb and Attila Cseh. This report is a part of the technical documentation of the Transportation Plan and is available separately on the VLMPO website (www.sgrc.us/transportation)

As described previously, the base year for the 2035 Transportation Plan is 2006. A past year is selected so that we can ensure that more data for that year is real and/or more accurate estimates rather than using estimates that may be inaccurate. Socioeconomic data was estimated for population, number of households, median income, school enrollment, total employment, and employment in the following sectors: retail, service, manufacturing, and wholesale trade.

It is estimated that in 2006 the VLMPO MPA had 103,751 residents (because the MPA includes only a small portion of Berrien and Lanier Counties, most comparisons are made to the Lowndes County totals in this report), a 36% increase since 1990 and a 12% increase since 2000.

[i] "According to the latest figures published in the Georgia County Guide (UGA, 2009), Lowndes County's overall retail pull factor (RPF) for 2008 was 2.17, the highest in the entire State of Georgia for the second consecutive year." This data is indicative of the Valdosta area as a regional shopping and economic hub. For every dollar that a Lowndes County resident spends locally there is another $1.17 spent by a person from outside of the county, coming here for services, shopping, and employment. This helps

define the impact of being a regional economic hub has on the regional transportation system.

The population projections for the next 25 years show that the Region will continue to grow at a fairly quick pace, reaching 140,068 residents by 2035.

The population projections used herein produce forecasts that use coefficient estimates from a linear regression model that assumes the future population depends on lagged (lags in growth) population numbers (up to 3 lags) and the current year.[ii] "Besides the one presented, other models were also estimated assuming more complex relationships between current population and past populations. However, those estimates are not reported here as they predict unrealistic population numbers at the end of our forecast period."[iii]

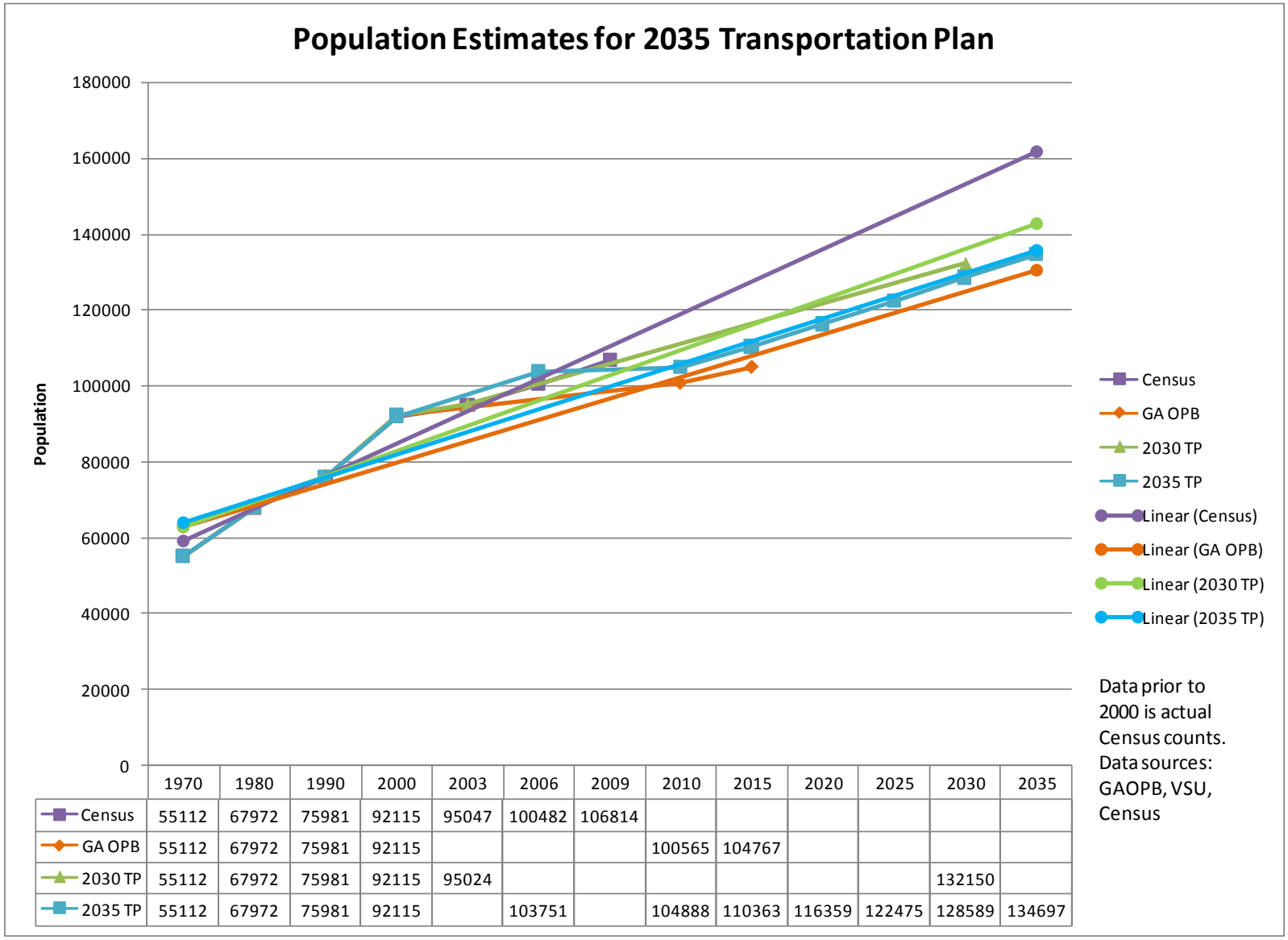
The population, income and household projections were distributed amongst various Block Groups identified by VLMPO and local officials and planners using the Delphi Method of building consensus on where future growth would occur. The population projections were provided in five-year increments from 2010 through 2035. In the current Travel Demand Model (described later) only the base year (2006) and horizon year (2035) are used, but interim data was developed for future planning uses.

"To estimate the number of households, we assume that the ratio of population to number of households within a block group remains the same as it was in 2000."[iv] It was assumed that the number of persons living in a household would not significantly change over time, so the old ratios were carried forward and used to estimate the number of households in each block group.

Income was forecasted based on year 2000 per capita income, grouped by "block groups into three categories: lower third (lower 33 percentile), middle third, and top third (top 33 percentile). First [it is] assumed that during years 2008 and 2009 per capita income will grow similarly to the average growth of 2001 and 2002 – the latest recession period. After that, per capita income will grow by the average growth rate in non-contraction years in the 1997-2007 period (that is, without years 2001 and 2002). In addition, [it is] also assumed that lower-third block groups within the area of analysis grew by the same percentage as those lower-third counties in the entire state of Georgia (also based on year 2000 per capita income); and the same for middle- and top-third block groups. Therefore, the yearly average growth rate from 2010 is assumed to be 3.27 percent, 3.31 percent, and 4.00 percent in the lower, middle, and top third percentiles, respectively."[v]

When forecasting employment all jobs are lumped into four main categories: retail, service, manufacturing, and wholesale trade. There were "two different primary functional forms used to forecast employment – the linear trend and a lagged regression model. In some cases, the lagged regression model fit the data better than the linear trend. The average of these two forecasts is what was used."[vi]

To develop projections for school enrollment several assumptions had to be made. First, it was assumed that the two school systems would remain independent and most of the growth in school enrollment would occur in the Lowndes County School Corporation. However, it should be noted that if the school corporations were to consolidate, it is assumed that all of schools currently used would continue to be used in the future in some manner. Future annexations by the City would also shift school enrollment between corporations but not overall growth forecasted here.



	1970	1980	1990	2000	2003	2006	2009	2010	2015	2020	2025	2030	2035
Census	55112	67972	75981	92115	95047	100482	106814						
GA OPB	55112	67972	75981	92115				100565	104767				
2030 TP	55112	67972	75981	92115	95024							132150	
2035 TP	55112	67972	75981	92115		103751		104888	110363	116359	122475	128589	134697

Figure 5 Population Estimates for 2035 Transportation Plan

With the anticipated opening of Pine Grove High School in the County, it is anticipated that no other additional high school will be required over the next 25 years. The number and enrollment of middle schools should remain the same or slightly decrease. "[I]t is likely that the number of students in elementary schools will grow beyond current school capacities, which will necessitate the need for two new elementary schools. This need may be relieved by the anticipated school openings in the Val Del Road – Hwy. 41 area and in the Kinderlou area."[vii]

Private schools in the community are not anticipated to grow to a level where new facilities would be required. However, some growth in enrollment will occur.

Possibly the fastest growing economic engine in the region is higher education provided by three different institutions: Valdosta State University, Wiregrass Georgia Technical College (formerly Valdosta Technical College) and Georgia Military College. Park University, Webster University and Embry-Riddle Aeronautical University also provide smaller classes at Moody Air Force Base. Enrollment at all of these locations is rising greater than anticipated. Valdosta State University has anticipated that enrollment would reach 16,000 by 2020; however current enrollment figures indicate that the University will reach this level well in advance of 2020. By 2035, it is anticipated that more than 30,000 students could be on campus. Wiregrass Georgia Technical College is experiencing similar growth trends and it is anticipated that enrollment there will nearly double to more than 8,900 students by 2035. Georgia Military College is also anticipated to grow by more than 100% to more than 2,200 students by 2035.[viii]

With all of this anticipated growth in higher education, all of these schools will be forced to look at new facilities for classrooms, auxiliary buildings, and student housing (whether it is dormitories or off-campus).

Socioeconomic Data Development

The first step in developing the socioeconomic data was to obtain estimates of population, households, income, employment and school enrollment for the base year of 2006. These estimates were provided by the VSU Center for Business and Economic Research just as the future year projections had been.

Having these base year estimates in block group format, the SGRC Geographic Information System (GIS) department was able to utilize building permit data (which had been geocoded with exact address location information) to disaggregate the information from the estimates to the TAZs accurately. This process was repeated for the households and employers (using commercial building permit data). Disaggregation for income was handled by copying the estimated block group income into each TAZ within that block group.

Because schools have a fixed location, and accurate enrollment records are kept, the actual school enrollment was used for the 2006-07 school year, and allocated to each TAZ where there was a school located in 2006.

To develop the 2035 land use, growth patterns and demographic data, the MPO staff met with each local jurisdiction to develop growth maps using the Delphi Method. The Delphi Method is a systematic forecasting approach at gaining consensus. By meeting with each local jurisdiction and creating a large sample size, the MPO was able to determine where the community generally thought residential, commercial and industrial growth was going to occur over the next 25 years. In most cases the maps from each community were the same as maps from other communities, meaning that officials from throughout the region all had a good idea of where, when and how much future growth was going to occur. The growth maps also included anticipated locations of new

schools and medical facilities. Once a common map was created each of the jurisdictions had another opportunity to comment on the map and adjust any growth areas as needed. These maps were then input into GIS and utilized later in the process.

The Valdosta State University Center for Business and Economic Research developed future year demographic projections for population, income, households, school enrollment, and employment. VSU produced data at the block group level for each of these demographic categories in five-year increments (2010, 2015, 2020, 2025, 2030, and 2035).

The requirements for developing socioeconomic data for the MPO 2035 Transportation Plan do not require that the future year data be in five year increments, only in the base year and horizon year of the plan. The MPO asked VSU to provide this interim year data for future planning needs, such as transportation corridor analysis, interim year land use and development analysis, and so on. The data found in this document and in the Travel Demand Model use only the base year and horizon year data.

VSU utilized the growth maps developed by the MPO staff to locate population and employment growth in block groups. This data was then taken by the GIS planners in the SGRC's VALOR (Valdosta-Lowndes Regional) GIS Program and allocated to TAZs. The population growth was allocated to the TAZs by adding the growth in population identified by the VSU forecasts to the base year data previously allocated, and in concentrations as identified by the future growth maps and current development patterns. For example, if the current development pattern in surrounding TAZs shows one house per acre, then the same allocation of population was carried forward in the new growth areas. Each block group total was controlled to ensure the TAZs did not have more population than the identified population forecasts for the block group.

This process was repeated for the forecasts in each of the employment sectors. The future year income projections were allocated to the TAZs by carrying forward the block group estimate. The school enrollment estimates were done on an individual basis by allocating the growth to existing schools, and other new schools identified on the future growth maps.

Each of these maps was reviewed by the local land use planners for the City of Valdosta and Lowndes County and the SGRC for accuracy and consistency with local growth patterns and comprehensive plans.

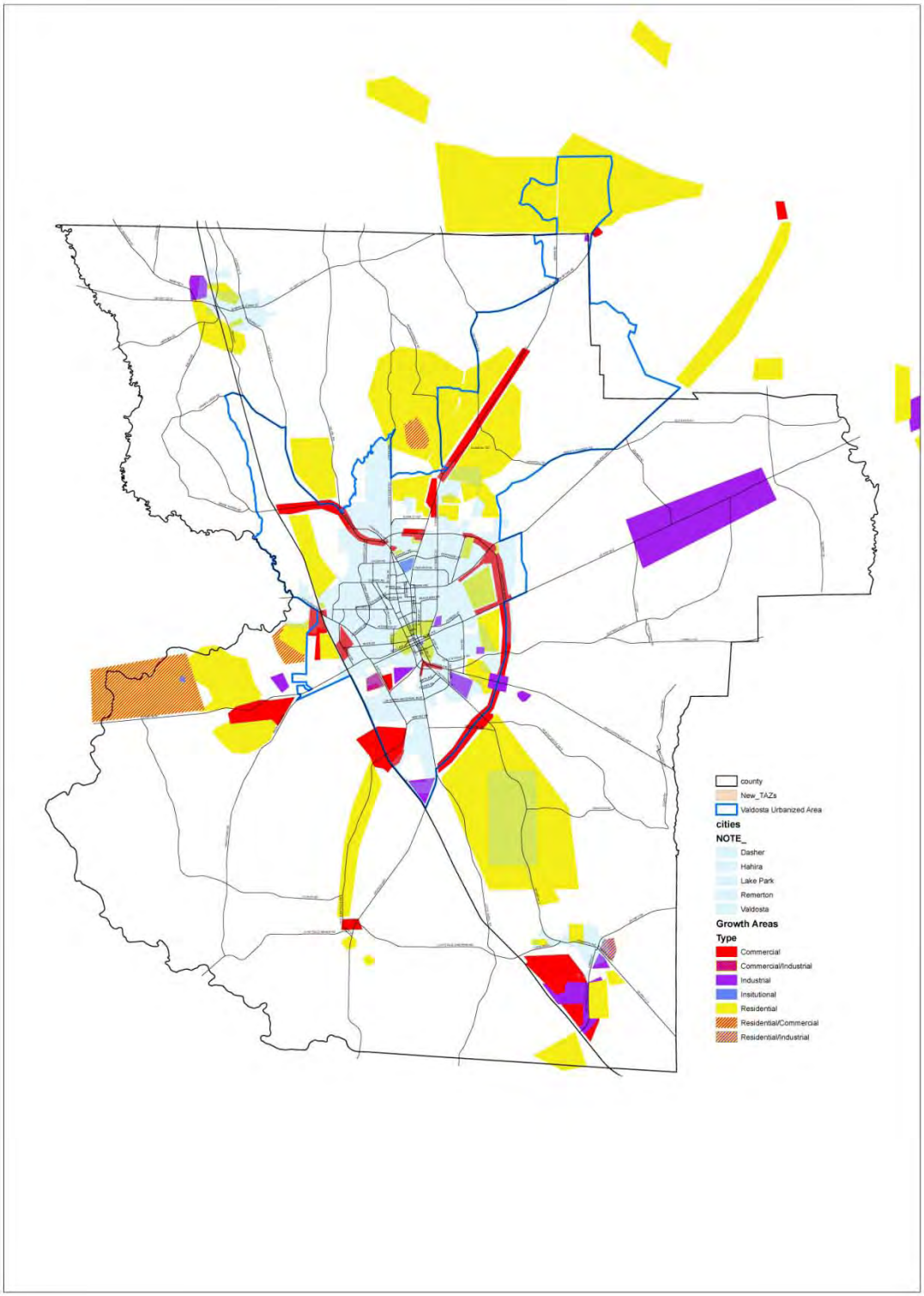


Figure 6 Future Growth Map developed using the Delphi Method

LRTP Network Model

The 2035 Transportation Plan Network refers to the region's major roads and highways, as they are included in the Travel Demand Forecasting (TDF) Model. Currently the TDF software that VLMPO and GDOT use is called Cube 5. When the Transportation Plan was last developed for the Valdosta Urbanized Area it covered the period from 2003 through 2030 using the software program TP+/Viper. As part of the update to 2035, the travel demand model was updated to Cube 5 Base and Voyager platforms, and changes were made to the model to take advantage of new data sources and planning assumptions.

VLMPO staff working with staff from GDOT using base maps for Lowndes County, revised Traffic Analysis Zones (TAZs) to include all of the Metropolitan Planning Area for this LRTP update. The Travel Demand Model (TDM) contains 424 TAZs, 399 of them internal to the MPA, and 25 external stations that represent traffic coming into and leaving the region. The TDM has 5738 links consisting of primarily the interstate, arterial and collector roadway system. These links are connected to one another by 2337 nodes that mostly represent street intersections.

The baseline data for the 2035 LRTP was collected to represent calendar year 2006. In order to look in to the future the base year model must be calibrated to adequately simulate these existing conditions. TDF is used to predict travel behavior and resulting demand within an urbanized area. As described earlier, the collection of demographic information was compiled at the TAZ level. This, as well as road network data (functional classifications, lanes, speed, annual average daily traffic, etc), is coded into the model to accurately depict the transportation system and land use characteristics. A traditional four step gravity model process is used for TDF. These steps include: Trip Generation, Trip Distribution, Mode Split, and Assignment. In the VLMPO TDF Model, the mode split step is skipped due to the fact that the percentage of vehicle miles travelled on modes of transportation other than cars or trucks is extremely small and would not accurately be depicted in the model if it were included.

The first step in the process, trip generation, is to determine the number of daily trips that will take place in the study area. Trips are either produced within or attracted to a TAZ. This process develops the relationship between the trips and the socioeconomic variables described earlier. Trip generation is the initial step in the TDF process that estimates the number of person-trips generated by each TAZ by their respective trip purpose (home based – work, home based – other, home based – shopping, and non-home based trips). A detailed set of trip equations (or linear regression equations) are directly input into the trip generation program and are compiled for all 424 TAZs. The socioeconomic data collected at the TAZ level includes population, households, school enrollment, and employment by sector, median income, and land area. The 2006 base year data attributes described earlier are the input components in the development of the model. This requires a good deal of review to ensure accuracy and correctness.

The next step is trip distribution which is used to determine the number of trips that occur between the TAZs. This procedure takes the total trips produced or attracted and links them geographically with the study area. The modeling process for trip distribution utilizes the gravity model (adopted from Newton's Law of Gravity) which assumes that trips emanating from a zone are attracted to another zone, in proportion to the sizes of the two population groups (employment and households) and in inverse proportion to some power of travel

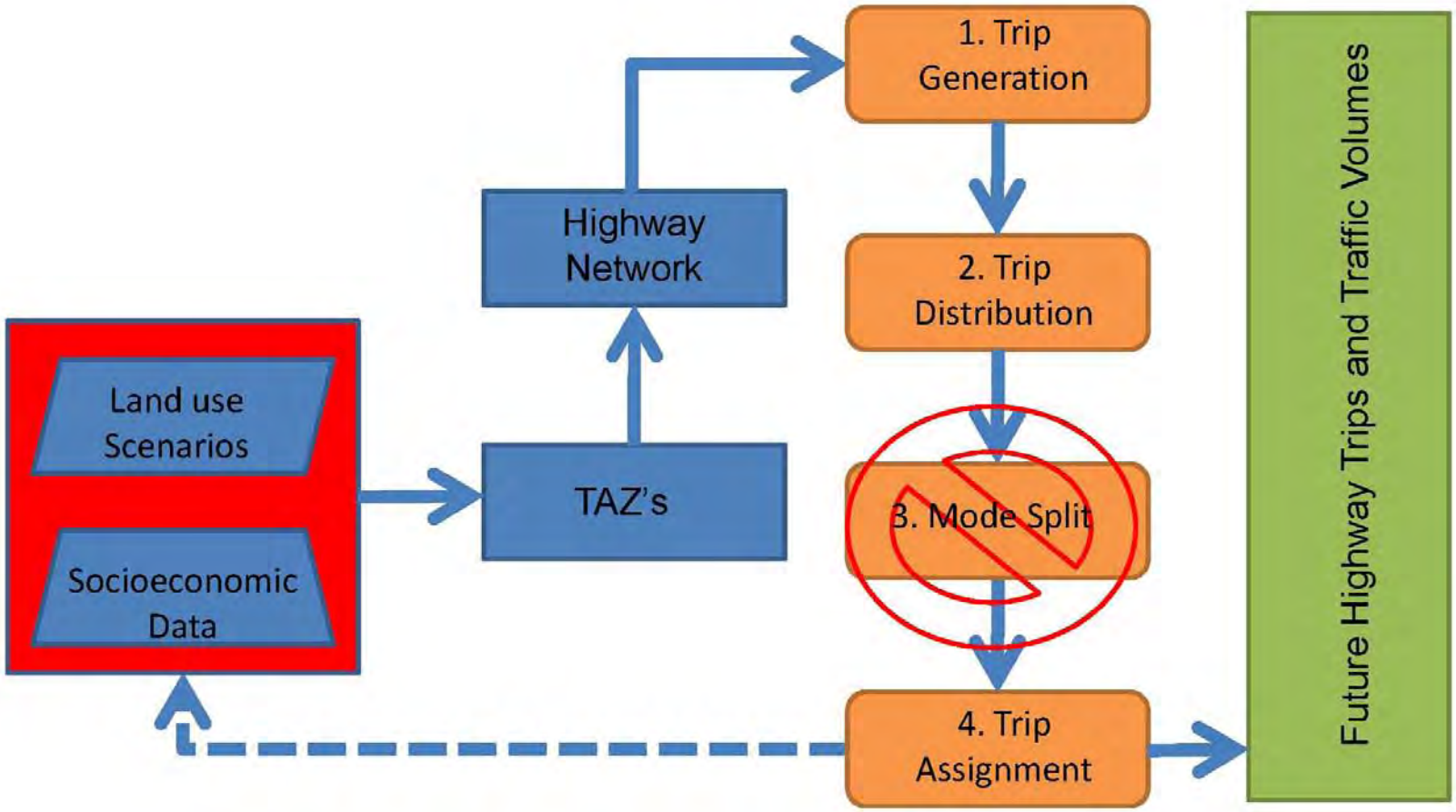


Figure 7 Four-Step Travel Demand Gravity Model

impedance (travel time) between the zone pairs. The process produces trip tables that display the trips between each zone pair for the study area. These tables are created for internal/internal trips (those starting and ending within the study area), external/internal – internal/external (those from outside of the study area into the area and vice-versa) and external/external trips (which represent trips that pass through the study area).

As described earlier, the next step in the process is generally mode split which determines the amount of travel that uses alternative modes of transportation (transit, walking, biking, rail, etc). Since transit use and other alternative modes of transportation are either so small or non-existent in the study area, the mode split process isn't necessary. Lowndes County currently provides a rural demand response transit system which accounts for only a small amount of trips that would result in significant vehicle miles traveled (VMT) reduction in the region. At this time transit trips are not significant enough to include in the TDM. However, as transit usage continues to grow in the region the inclusion of transit trips in the TDM will need to be considered.

Assignment is the final step in the TDF process. The objective of the traffic assignment step is to simulate the traffic flows on every roadway section in the modeled network. The assignment process is first calibrated to the base year (2006) conditions, and then it is utilized for forecasting future demand by superimposing the projected growth (households, employment school enrollment) for 2035 in each TAZ. The process is done iteratively until assigned volumes of traffic are reflective (within small margins of error) of existing traffic counts at specific locations (called screen lines). The accuracy of the assignment process is validated through post processors that calculate the root-mean square error between the assigned volumes on links of roadways and actual AADT on those facilities. During the whole process, a variety of accuracy checks are made to assure the outputs from one step provide reasonable inputs for the next step. The TDF process involves a great deal of data that is imbedded within the travel demand model. Therefore, it is essential that the data sets be carefully examined to avoid errors.

Finally, the calibrated model can be used to identify existing deficiencies in terms of calculated measures of effectiveness line, level of service (LOS), vehicle miles travelled (VMT), and vehicle hours of delay (VHD). Furthermore, the model is used to test alternatives (conceptual projects) to assess the effects on the roadway in terms of shifts in travel demand and preference. These improvements can be ranked based on the calculated measures of effectiveness and other criteria to be later developed into transportation improvements. These alternatives can then be weighed in terms of benefits and costs by local officials to develop the preferred transportation improvements that are endorsed in the long range plan. Figure 8 depicts the overall transportation planning process. The model development, socioeconomic methodology and other technical items are available in a separate technical report.

For the 2035 Transportation Plan, the travel demand model was updated using the latest data available and the geographic information systems (GIS) developed by the VALOR program at the SGRC, and data from GDOT. TAZs were refined to remove errors, and to better refine some TAZs based on past and future growth. Aerial photography was used to further adjust the alignment of the roads and to adjust the TAZ boundaries while updating the attributes of the roads that could be determined by visual inspection. These attributes included the number of lanes on the road in each direction and the facility type (functional classification) of the road.

Figure 8 Transportation Planning Process (Source: FHWA)

The traffic counts associated with each link of roadway were updated by GDOT with the most current AADT available. The other attributes to be updated were the functional classes and the link speeds. The functional classes were updated based on the latest available functional class maps from GDOT and Lowndes County. Any functionally classified roads not already modeled were added, along with any local roads deemed necessary for balancing the model output.

There are essentially seven networks that were modeled to develop the base and future year conditions based on different modifications and assumptions: Network 1 represents the base year (2006); Network 2 represents the future (2035) no-build or 'do-nothing' scenario (the base year network with all future socioeconomic growth added but no new transportation improvements); Network 3 represents the future with existing and committed or Tier 1 projects from the most recent Transportation Improvement Program (TIP) built in; Network 4 represents additional projects in Tier 2 of the TIP; Networks 5 and 6 include long range projects identified in previous transportation plans and new ones that are proposed and used to evaluate alternatives; Network 7 represents the preferred model and includes the transportation improvements as approved by the Policy Committee. This is referred to as the financially constrained plan, which means the project costs fall within the estimated revenues reasonably expected to be available over the life of the plan.

The model includes information that is not currently utilized at this time, but may be used in future years as projects progress. SAFETEA-LU requires MPOs to update the Transportation Plan every five years (see previous note about air quality non-attainment), this includes revisions, as needed, new forecasts for socio-economic data, external station data, and link data, as well as updates to the current year data. A new calibration run must be completed for the beginning model year. The Cube 5 transportation model is extremely useful for long range transportation system planning. Examining model output can help clarify existing problems with the roadway network that need to be addressed. The main impact of the model, however, is in evaluating different proposed solutions to existing (or perceived) problems. For example, it may be suggested that an interchange be constructed on a highway giving direct access to a community or development, as this may help attract people to that community. The model may indicate residents would use this new route to and from their homes rather than passing through the existing business district, and through traffic would continue to use the highway around the community. Of course, further research would need to be done to assess the probable result of any project. As explained earlier, model output on a small area level cannot be accepted as "truth", but can give good insight as to what type of impact a project may have.

It is fairly simple to modify the network model to reflect most new projects so the results can be evaluated. Therefore, several different possible solutions to a given problem can be modeled and evaluated to help determine the best solution(s). This is much more efficient than mapping an area and performing all the necessary computations manually. However, the accuracy of the model diminishes as the size of the sub-area being examined decreases. Since the Transportation Plan generally consists of relatively large, regionally significant projects, the level of detail is generally acceptable and the results may be assumed to be plausible.

LRTP Plan Development

The 2035 Long Range Transportation Plan is developed through the modeling process previously described and the following project selection process. The project selection process is both an objective and subjective process in selecting the project the local community wants to proceed with over the next 25 years.

Planning Factors

As noted earlier the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users was signed into law by President Bush in 2005. Included are eight planning factors that are required for consideration in metropolitan transportation plans and what the VLMPO is doing to meet these goals are as follows:

"The metropolitan planning process for a metropolitan planning area under this section shall provide for consideration of projects and strategies that will –

(A) support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency

Through projects and policies in the 2035 Transportation Plan the VLMPO Policy Committee encourages the economic vitality of the Valdosta metropolitan area through the improvement of freight corridors. Through projects like the widening of US 84 and SR 133, and the development of an inland port in Cordele, GA this region will be more connected to local and international markets.

(B) increase the safety of the transportation system for motorized and nonmotorized users;

The VLMPO continues to analyze crash reports so local governments may better plan for improvements which better protect the traveling public. The continuing development of bike and pedestrian facilities will also improve the safety of these persons utilizing a multi-modal transportation system.

(C) increase the security of the transportation system for motorized and nonmotorized users;

The transit providers as well as local and state engineers work to provide a safe and secure transportation system throughout the region. The VLMPO will continue to work with all local and state transportation providers to develop safety and security information to residents.

(D) increase the accessibility and mobility options available to people and for freight;

The VLMPO will continue to work to provide more mobility options for people and for goods through the development of a multi-modal transportation system. The continued implementation and development of a public transportation system will aid in the mobility of individuals needing access to jobs, educational, medical and other activities. The support for the relocation of a rail switching yard and rail grade separations are important priorities for the community to provide mobility to freight movement and to provide access to emergency vehicles to areas of the community that can become cut-off when a train blocks the roadway.

(E) protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;

As described in the chapter on socioeconomic data development, the VLMPO has worked closely with local planning partners to ensure the 2035 Transportation Plan is consistent with local growth patterns and the local comprehensive plans.

Through various projects and policies set forth in this Transportation Plan, the VLMPO hopes to protect our regions' natural environment through environmental mitigation activities on a project by project basis; and promote energy conservation through the development of alternative forms of transportation like public transit and bike and pedestrian facilities.

(F) enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;

Through the development of a public transit system for the Valdosta Urbanized Area, the VLMPO is working to enhance the connectivity of the regions' transportation networks for all users. Providing more options for users to access transportation is important for job creation, educational advancement and economic development throughout the entire metropolitan area.

Projects that improve access for freight distribution are also important to economic development and job creation in the region. Projects like the completion of the railroad overpass on US 84 near downtown Valdosta will improve the reliability of freight movement through the region by removing a major impediment to the flow of local and through traffic. The proposed relocation of the rail switching yard in Valdosta will help enhance the connectivity and conflicts between rail and highway traffic in Valdosta. The relocation of the switch yards would also lead to the possibility of developing an intermodal transfer center locally to complement the inland port being developed near Cordele, GA.

(G) promote efficient system management and operation; and

Through the development of projects in the region that help in the operations of the transportation system, the VLMPO is actively involved in the efficient management and operation of the regional transportation system. Local governments are actively exploring different options to improve the operations of roadways without expanding the capacity of a road, resulting in lower construction costs for a similar benefit. Local governments are also actively exploring ways to implement Intelligent Transportation Systems and technologies that help move traffic around the region.

(H) emphasize the preservation of the existing transportation system."

As demonstrated in the Financial Plan for this Transportation Plan later in this document, the number one priority for funding is the preservation of the existing transportation system. The VLMPO Policy Committee realizes that the quality of life of the community cannot be maintained unless the existing transportation infrastructure is maintained before new investments are made. The VLMPO has worked to ensure proper funding for existing transportation infrastructure over the life of this plan as well as new capital investments.

The projects and policies identified in this plan all relate back to these eight planning factors in some fashion.

Project Identification and Selection

The Valdosta-Lowndes MPO 2035 LRTP was guided by a series of goals and objectives, based largely on SAFETEA-LU planning factors and previous goals and objectives from the Metro 2030 Transportation Plan. The role of the evaluation criteria, which was approved by the Valdosta-Lowndes Metropolitan Planning Organization (VLMPO), is in measuring the ability of the projects listed by local communities to meet the priorities of the VLMPO 2035 LRTP as well as SAFETEA-LU planning factors.

This document presents a discussion of how the projects are scored against the evaluation criteria and then ranked based on total scores. The role of the evaluation criteria, a description of the evaluation criteria rating system, and application of the evaluation criteria are all described in this document.

Since there are usually more projects than financial resources for implementation, a methodology is needed to rank and evaluate all projects on common grounds. This is the purpose of evaluation criteria, which can serve two functions in the VLMPO 2035 LRTP:

1. Determining projects for inclusion within the Cost Feasible Plan; and

2. Prioritizing projects for plan implementation.

The projects submitted by local governments were evaluated and ranked, using both the evaluation criteria and the financial resources available, for possible inclusion in the 2035 LRTP. Projects that were not selected remain in the 2035 LRTP; however they are listed in an illustrative section from which future project lists will be built.

The first step in the development of evaluation criteria was analysis of the SAFETEA-LU transportation planning factors that are applicable to MPO areas. VLMPO priorities and implementation strategies for the 2035 LRTP were another key input along with other objective criteria collected by the MPO, local governments, and GDOT. Input from local government officials and input from the general public were used as subjective criteria to break ties. The MPO Policy Committee ultimately decided on the final project listing using objective and subjective criteria to prioritize any projects that met the community needs the best.

There are four main categories of evaluation criteria used for prioritizing projects for the 2035 TP; they are: Congestion Management, Safety and Security, Land use, Economic and Multi-Modal Development, and Public Input and Community Impact. Indicators that measure the above subject areas are identified in this section of the report. The rating of each indicator is set to the lowest number (0) when the evaluation is least desirable, and the highest score (up to 5) is assigned for the most beneficial evaluations. Some evaluation measures have bonus points that can be earned as well. A matrix was subsequently developed containing all projects and indicators, and projects were then staged and prioritized according to the overall rating summation of individual indicators for each project. The evaluation criteria and project prioritization are included in the Appendix.

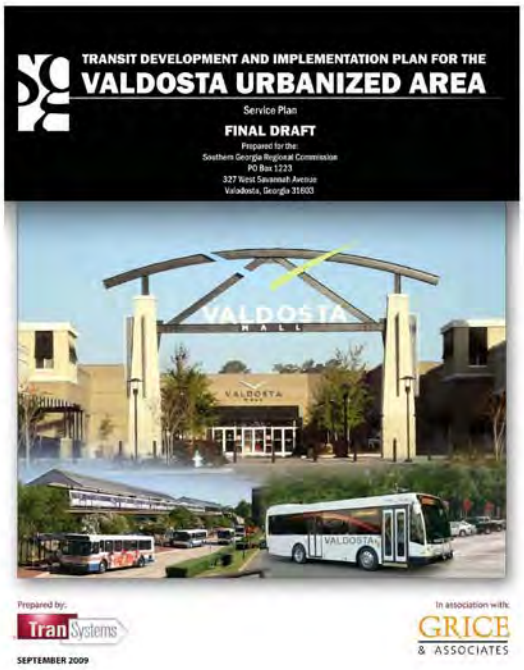
A matrix was created to apply the evaluation criteria scores (in columns) to individual projects (in rows). Projects included in the 2035 TP and the evaluation criteria discussed above were combined in this matrix and ranked according to the sum of all individual weights (i.e., the higher the total project score the better the project rating).

Because a project may not always score high using the data provided, the VLMPO Policy Committee does reserve the right to move a project in the final listing based on unquantifiable needs. These decisions are made

on a case-by-case basis and are independent of this analysis.

Public Transit

Planning for an urban fixed-route public transit began in earnest in 2004 when the VLMPO undertook a feasibility study to determine if the Valdosta Urbanized Area was a good place to implement public bus services. This feasibility study showed that the population density, activity center location, and general need were all good indicators that an urban fixed route public transit system would be a viable investment for the region.



In 2008 the VLMPO began the implementation process by developing a service plan and service delivery options. This service plan included the development of a central transfer center located in the Pendleton Drive Area (area bounded by Northside Drive, Oak Street Forrest Street, and Gordon Street) near the South Georgia Medical Center and the Valdosta State University Campus, two of the largest employers and potential users of public transit. This service plan included five routes serving much of the Valdosta Urbanized Area directly.

- Route 1 included service to South Georgia Medical Center (SGMC), Valdosta State University, City of Remerton, Valdosta Mall, and the Wal-Mart on Norman Drive.
- Route 2 included service to SGMC, VSU, Five Points, Wal-Mart on Inner Perimeter and Downtown Valdosta, and residential neighborhoods along River Street.
- Route 3 includes service to SGMC, VSU, residential areas in the north east part of Valdosta, the Park Avenue Senior Center, Downtown Valdosta, and residential areas along Forrest Street and in Southeast Valdosta
- Route 4 included service to Five Pointes, SGMC, VSU, residential and shopping areas along Bemiss Road and to Moody Air Force Base
- Route 5 included service to VSU, SGMC, Five Points, Smith Northview Hospital, and Wiregrass Georgia Technical College

The Service Plan was accompanied by a set of Service Delivery Options that were presented and recommend by the VLMPO Transit Steering Committee. The Service Delivery Options for an urban fixed route transit system in the Valdosta Urbanized Area included the designation of the VLMPO as the operator of the transit system for the first few years until a transit authority could be established. The service delivery options also included the recommendations that the operation of the transit system should be handled by a third party professional transit operator who would implement the start-up of the system as a turn-key contract.

Following an effort to establish a local funding source for the full implementation of the transit system for the Valdosta Urbanized Area, the transit steering committee advised the VLMPO Policy Committee that a phased implementation should be considered.

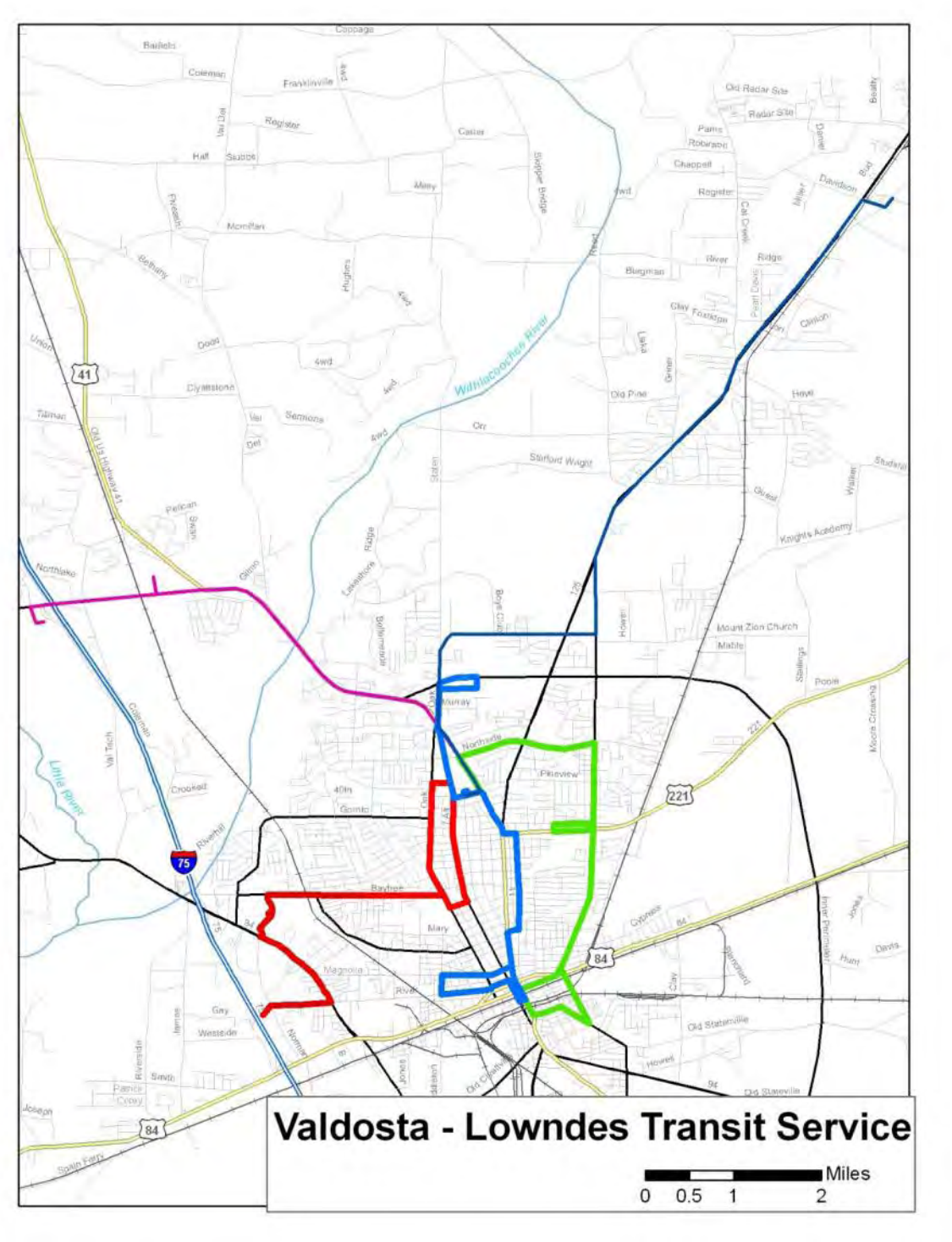


Figure 9 Proposed Valdosta Urbanized Area Fixed Route Transit System

The phasing plan was introduced to local officials and was unable to gain local funding support. The Valdosta-Lowndes MPO strongly encourages local communities to continue to explore the future implementation of a fixed route public transit system in the Valdosta Urbanized Area.

Both Berrien and Lowndes County are sub-recipients of 5311 Rural Transit funds from GDOT. Each county operates a rural public transit system (Berrien County Transit and Lowndes County Transit, respectively). Both counties currently contract their service with a third party operator, in this case MIDS, Inc. MIDS provides demand response rural public transit services on a 24-hour advanced reservation model in each community.

It is anticipated that by 2035 Berrien County will have added at least two new expansion vehicles to its fleet to serve the public transportation needs of its residents.

Similarly, in Lowndes County an additional four expansion vehicles will need to be implemented by 2035 based on current usage and growth trends.

The development of multiple public transportation systems in the region makes the need for coordinated transportation services even more important. The MPO Policy Committee, through the Southern Georgia Regional Commission, should continue to encourage coordinated transportation services provided to urban and rural residents through various funding programs and jurisdictions.

Intermodal Projects

The movement of goods to, from and through Valdosta is an important part of the local economy. In Valdosta, truck traffic is a major issue affecting not only the businesses located here that use trucks to ship and receive products every day, but also residents and other businesses that interact with this traffic on a daily basis.

In 2009, the VLMPO conducted a Freight Movement Study that surveyed local businesses about the impact of truck traffic on the community. Several recommendations came from this report, including the development of policy statements by the MPO and further data analysis for future projects that improve freight movement.

Figure 10 Train near Savannah Avenue and Valdosta Switch Yard. Source: Google Earth

Locally, freight movement will be improved by the US 84/West Hill Avenue Grade Separation project being undertaken by GDOT. This project will help improve access and traffic congestion at key times of the day to portions of the city that are inaccessible to emergency vehicles. The project will allow the free flow of traffic through downtown Valdosta by both local and through trucks.

The CSX Transportation Valdosta Switching Yard, which currently crosses St. Augustine Road, blocks traffic access several times a day while trains perform switching maneuvers. The City of Valdosta is working with GDOT and CSX to relocate the tracks crossing St. Augustine Road to the west of the current switching yards, under I-75 and parallel to US 84.

In downtown Valdosta, through trucks cause issues with noise and vibrations to the historic buildings. This issue is currently being explored by both the City of Valdosta and Lowndes County. One of the key elements to reduce the noise and truck traffic in downtown Valdosta is to complete the Inner Perimeter Road bypass around the southern/western sides of the City. There have been several proposals submitted to divert truck traffic west of Valdosta to the existing Inner Perimeter Road bypass south of

Figure 11 Ports of the Southeast US within a 1 day drive of Valdosta, GA. Source: VLIA.

Valdosta; however, these proposals are only concepts and require further study as well as the identification of a funding source to complete construction.

Recently, the Valdosta metropolitan area has been highlighted as a leading location for logistics and distribution companies.[ix] Because of this, several companies have recently located here. These companies understand the importance of Valdosta's location and proximity to I-75, I-10 and the seaports in Savannah, Brunswick, Jacksonville, Tampa, Miami, Mobile and New Orleans.

Since Valdosta is not immediately adjacent to any of these important ports, the highway and rail infrastructure is immensely important. The VLMPO is working to develop projects that continue to promote the Valdosta metropolitan area for logistics, distribution and advanced manufacturing companies that can have easy access to regional, national and international markets within a one-day trucking time frame.

To this end, the VLMPO supports the continued development of the US 84 widening project from Homerville, GA to Waycross, GA. This project will provide better access from Valdosta to the ports of Savannah and Brunswick.

Additionally, the development of an inland port near Cordele, GA is important to the growth and development of the logistics, warehousing, and advanced manufacturing industries in all of South Georgia. This intermodal transfer center would impact jobs and economic development here in the Valdosta metropolitan area.

Airport Projects

In 2007 Valdosta Regional Airport updated its Master Plan. This Plan includes goals for safety, enhancing economic development, as well as general and commercial aviation activities.

In 2008, Valdosta Regional Airport saw over 38,000 enplanements, down about 17% from the record high in 2004 of over 46,000 enplanements. Valdosta Regional Airport is currently a general and commercial aviation airport served by Atlantic Southeast Airlines, a Delta affiliated carrier.

The Master Plan estimates that by 2025 passenger enplanements will be at about 93,000 annually. The Plan also estimates that general aviation and based-aircraft (aircraft that are permanently housed at the airport) will continue to increase as the region grows over the next twenty-five years. In 2009, the Airport Authority announced the construction of several new hangars to accommodate the growth in general aviation and corporate jet business.

The Master Plan outlines many maintenance and operations improvements to the airfield and airport that are needed to keep up with the anticipated demand forecasted over the next twenty-five years.

Highway Projects

The development of highway projects for inclusion in the 2035 Transportation Plan began with a review of the previous Metro 2030 Transportation Plan. The close relationship with available funding and demonstrated need of highway projects in the region, the relationship with the project selection process and the available funding in the financial plan (next chapter) is very close.

The connectivity of regional highway systems is important to the economic development of South Georgia and the Valdosta Metropolitan Area. Highways are important for the movement of freight, goods, and people from major employment centers to their homes in suburban and rural communities. The VLMPO Policy Committee supports the continued development and eventual construction of the SR 133 Corridor from Albany to Valdosta, and the US 84 Corridor from Homerville to Waycross. Although these roadways are not immediately within the Metropolitan Planning Area, their impact on the community is felt every day in traffic congestion and goods movement.

The highway projects included in this transportation plan are listed in the appendix, as well as on individual project data sheets. These project data sheets include detailed project information as it was available at the time of the 2035 TP adoption. Projects that are included in the current Transportation Improvement Program (TIP) have slightly different project data sheets, because more information is available for these projects including specific year of engineering and design or construction work. These projects are identified as TIP Tier 1 projects. All years are listed as the final 'Open to Traffic' date or if available the fiscal funding year of each project phase.

Bike and Pedestrian Projects

Alternative modes of transportation are important parts of a livable community that promotes a healthy lifestyle and recreation opportunities. There have been many efforts in the past several years to improve the bike and pedestrian facility access throughout the community, especially within the City of Valdosta.

The groundwork has been laid for the development of new and improved bike and pedestrian facilities throughout the community through several planning processes, including the Southern Georgia Regional Commission's Regional Bike and Pedestrian Plan, the Valdosta-Lowndes Bike and Pedestrian Master Plan, and the City of Valdosta's Transportation Master Plan.

The City of Valdosta recently began the process of developing more bike and pedestrian projects throughout the urban area, including the repair and maintenance of existing sidewalks, the installation of new sidewalks, and more recently the development of a city-wide bike lane system.

Figure 12 Bike lanes recently installed on Sustella Avenue in Valdosta. Source: Valdosta Daily Times

Many of the bike and pedestrian projects listed in this plan (complete list is available in the appendix) are coordinated with the adjacent roadway project. The bike and pedestrian projects listed likely will only occur with the development of any adjacent highway project. If there is no adjacent highway project, or if the timelines do not work for the local community projects, the bike and pedestrian listing will likely only be implemented by the local communities as funding permits. The project

listing in this plan (see appendix) is for illustrative purposes only.

The VLMPO encourages the local communities to continue the development of bicycle and pedestrian facilities that provide for alternative means of transportation, especially around the crowded VSU campus. The development of an integrated multi-modal transportation system is important to the quality of life of the residents and visitors of the Valdosta area.

Figure 13 Valdosta Traffic Management Center Control Room

Intelligent Transportation Systems

As technology progresses, using it through the deployment of Intelligent Transportation Systems (ITS) to help provide information to the travelling public is becoming an integral part of operating a regional transportation network. The City of Valdosta is a leader in using technology to better move traffic and inform the travelling public of the conditions of the transportation system. In 2005, the City of Valdosta opened its Traffic Management Center allowing engineers to adjust traffic signal timing and traffic flow in response to incidents or special events.

The use of technologies that make the Traffic Management Center a useful tool should be further implemented and considered as alternatives to other capital projects.

Land use and Access Management

Coordination of land use and transportation investments is integral to providing a community with a high quality of life and less congestion while respecting private property rights. The VLMPO and staff, through more enhanced coordination with local land use planning and economic development agencies, could be a key stakeholder in addressing issues between transportation and land development.

The MPO is currently working with the City of Valdosta, Lowndes County and GDOT to develop access management ordinances and future median crossings for Inner Perimeter Road. This corridor on the east-side of Valdosta is a limited access roadway that is anticipated to begin developing in future years as land is subdivided and sold and as the community continues to grow. The MPO is working to develop ordinances that encourage development while managing the access to the main highway at certain pre-defined points.

This model can be carried forward in other areas of the region where congestion and access are a problem now, or where future development will occur.

Safety and Security Analysis

The safety and security of the travelling public is of paramount importance to delivering a regional multi-modal transportation system. The safety of the transportation system is addressed primarily through the design and operation of the roadway infrastructure. The security of the transportation system primarily refers to the safety of transit riders, bicyclists and pedestrians as they traverse the regional transportation system.

The VLMPO annually produces a vehicle crash report that looks at the safety of the roadway and the results of the crashes that have occurred at the highest frequency crash intersections in the region. The most recent crash report uses data from 2006-2008, and was published in 2010.

Over the past eight years, Georgia and Lowndes County have generally seen a decrease in the

fatal crash rate per 100 million vehicle miles travelled. In 2007, the Lowndes County rate stood at 1.05 fatalities per 100 million vehicles miles travelled, this is near the state goal of being under 1.0 by 2010. Previously the Lowndes County rate was closer to 2.0.

The crash report looks at the various types of crashes that occur within the region and examines what efforts might be undertaken locally to reduce the number of crashes, especially fatal ones based on the data collected. The crash report reviews crashes caused by aggressive driving, whether the occupant was wearing a seatbelt or other restraint device, whether the crash was at an intersection or on a roadway segment, the impairment of drivers from drugs and alcohol, the age of drivers and even the time of day.

The crash report also highlights the top twenty intersections where there is a high frequency of crashes. The causes of the majority of these crashes are analyzed and reported to local engineers. Many of these intersections were reviewed for improvement as part of road projects or individual intersections for this Transportation Plan.

When it comes to the security of the transportation system, local transit providers are observant of the riders they carry and have procedures in place to ensure the safety of the riders on the public transit systems.

The design of a community's walking and biking facilities is also important to the safety and security of the users. In many areas of the community, biking and walking facilities include lighting, emergency phones, or other infrastructure and design elements to help ensure the safety and security of users at all times of the day.

CSS and Livability

Context Sensitive Solutions, or CSS, "is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist. CSS principles include the employment of early, continuous and meaningful involvement of the public and all stakeholders throughout the project development process."[x]

CSS is a way of engaging the community through the principles of environmental justice to ensure that new highway projects are sensitive to the environment around them. CSS works with the community to develop a transportation project that will fit into the 'context' of the natural and built environments of the community. Over time it has been realized that a new transportation project cannot just be dropped down in the middle of a neighborhood without destroying the underlying fabric that holds the neighborhood and community together. CSS is a method to mitigate the impacts of transportation improvements in our communities. The VLMPO Policy Committee seeks to engage and encourage local communities to work to develop transportation improvements that are sensitive to the context of the community as well as the natural and built environments.

In 2009, the US Department of Transportation, US Environmental Protection Agency, and the US Department of Housing and Urban Development created a partnership to develop sustainable and livable communities. Through the Six Principles of Livability, the HUD-DOT-EPA Partnership brings expertise that will direct the collective efforts for implementing the livability program. The six principles are described below.

1. **Provide more transportation choices.** Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.

As indicated throughout this document, the efforts of the VLMPO include the continued development of a multi-modal transportation network that includes public transit, bike and pedestrian facilities, highways, railroads, seaports, and air travel. The continuing development of a public transit system and bike and pedestrian facilities encourages travelers to use these forms of transportation rather than an automobile, thereby reducing our dependence on foreign oil while increasing our communities' quality of life and public health.

2. **Promote equitable, affordable housing.** Expand location- and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.

The future growth areas used to develop the socioeconomic data for this Transportation Plan reflect the development of an urban service boundary as developed in the Greater Lowndes County 2030 Comprehensive Plan. Most future development is planned to occur within this future boundary, promoting more dense development and better access to services and amenities for residents.

3. **Enhance economic competitiveness.** Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers, as well as expanded business access to markets.

This 2035 Transportation Plan promotes the access to job markets, educational opportunities and other activity centers through the development of a regional multi-modal transportation system. The proposed transit system will link residential neighborhoods to employment and educational centers as well as provide the community with reduced congestion and a better quality of life. This plan promotes the development of railroad and highway facilities to enhance the Valdosta metropolitan area's access to regional, national and international markets.

4. **Support existing communities.** Target federal funding toward existing communities—through strategies like transit oriented, mixed-use development, and land recycling—to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.

Much of the investment in this transportation plan is targeted toward areas of the community that have already developed. The improvements proposed in this plan work to relieve congestion, provide alternative forms of transportation for people and goods and promote a higher quality of life for the residents, workers, and visitors to this community. This plan supports redevelopment of brownfield areas and the connections of people and the places they want to go through public transit, bike and pedestrian facilities and highway improvements.

5. **Coordinate policies and leverage investment.** Align federal policies and funding to remove barriers to

collaboration, leverage funding, and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated renewable energy.

The very nature of the metropolitan planning process is to offer a forum for collaborative discussions and solutions to problems. Under this Transportation Plan, the VLMPO Policy Committee commits to continue a forum for collaborative discussions and decision making on transportation and other projects and programs.

6. **Value communities and neighborhoods.** Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods—rural, urban, or suburban.

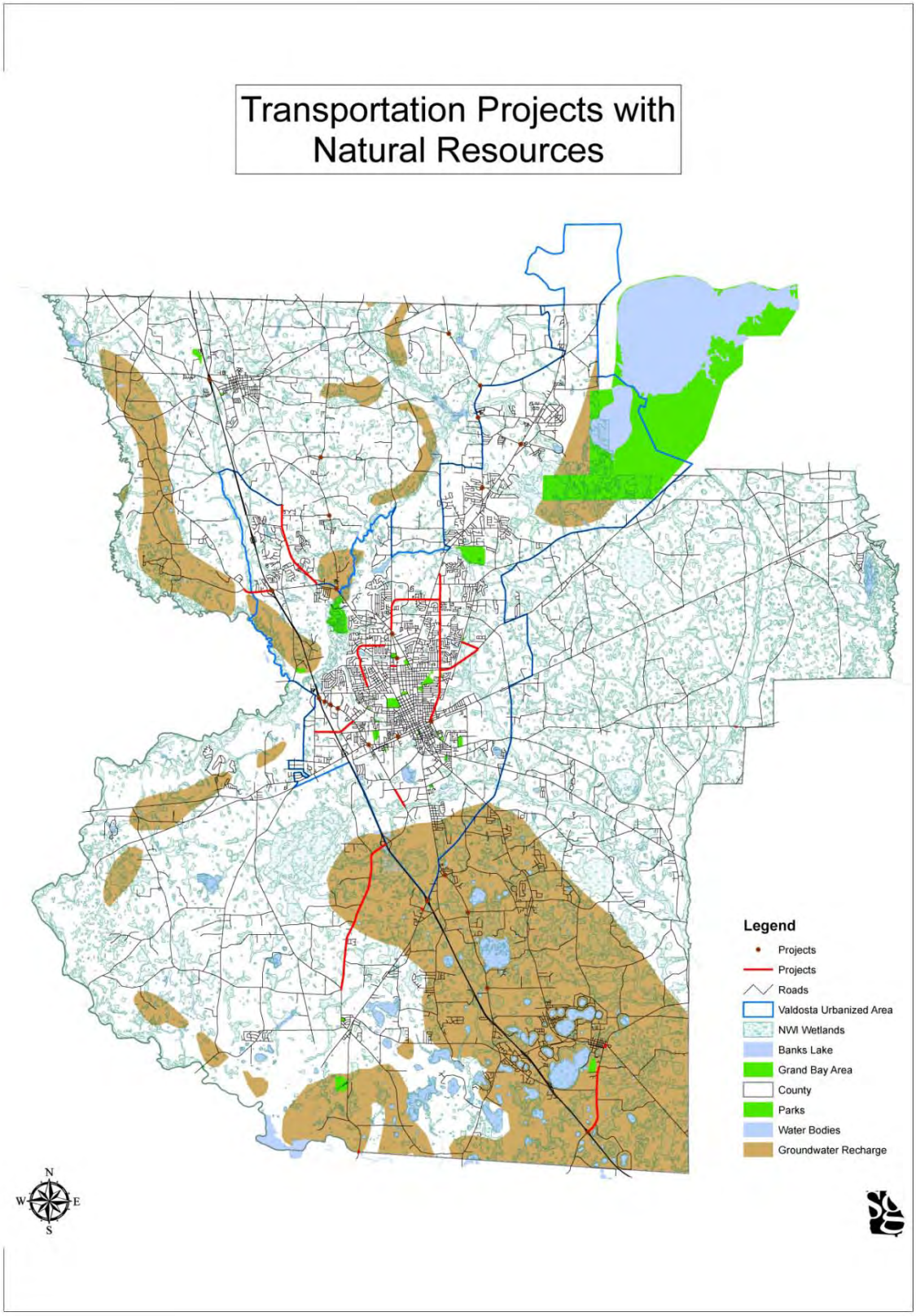
The bike and pedestrian projects described earlier in this section demonstrate the commitment of the VLMPO to the value of communities and neighborhoods. Through the development of new infrastructure and context sensitive solutions the VLMPO encourages local communities and neighborhoods to work together to invest in the health and safety of the region. Through projects like bike lanes, sidewalks, walking trails and public transit, the quality of life of the region can be raised as more residents utilize the amenities for work, shopping, and recreational activities.

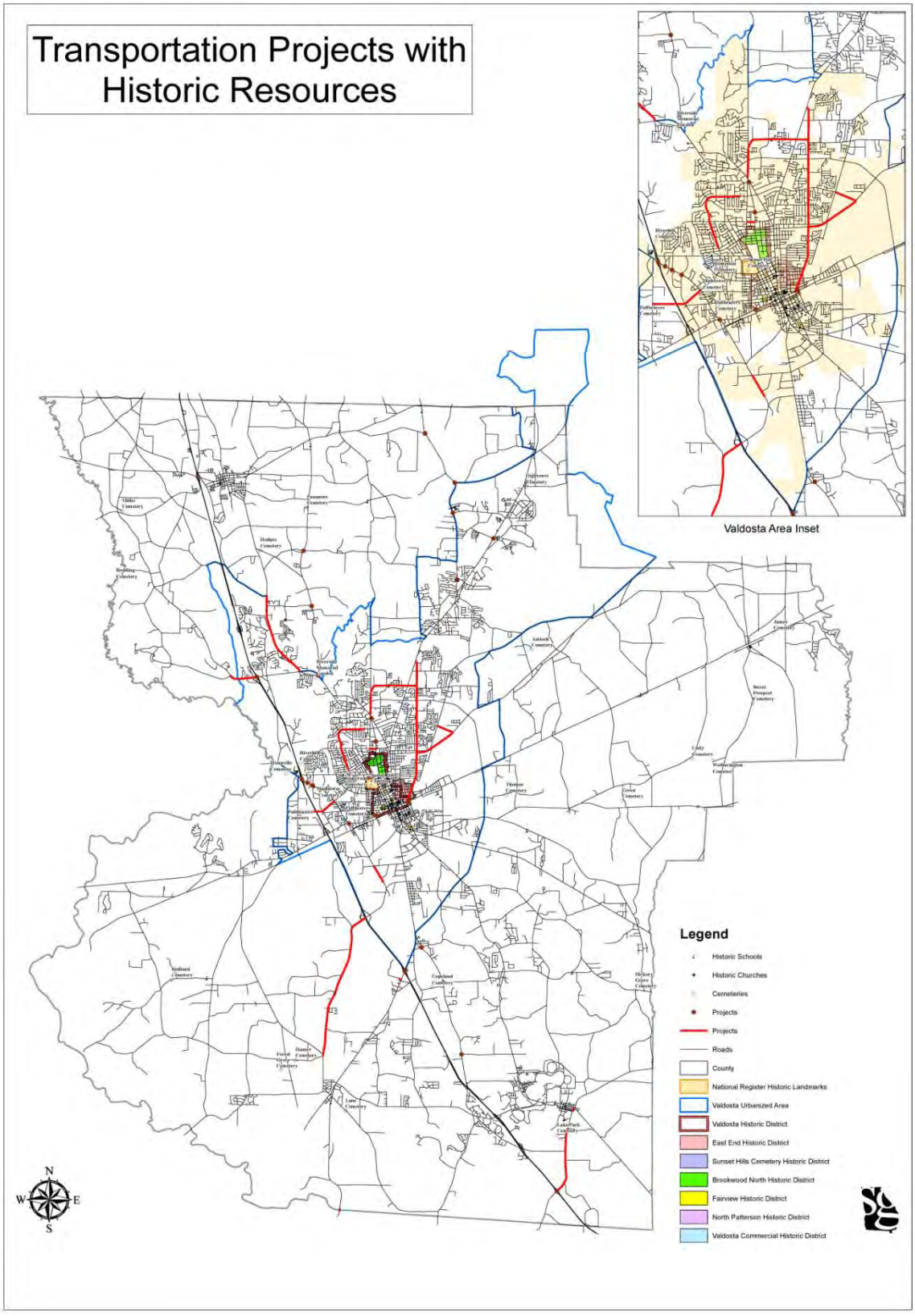
Environmental Mitigation Activities

As prescribed in the SAFETEA-LU legislation, the VLMPO "shall consult with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historical preservation concerning the development of the transportation plan."[xi]

The VLMPO used the web-based VALOR GIS (www.valorgis.com) and notifications to assist in consulting with State and local agencies responsible for environmental activities. During the public comment period for this Plan, VLMPO produced a website where the public and stakeholder organizations would be able to overlay data layers on the proposed highway projects to determine any impact these projects might have on environmentally sensitive sites in the region. Example maps of the process described above have been included at the end of this section.

In addition to providing a resource for State and local agencies to review the proposed Plan and environmentally sensitive sites during the public comment period, VLMPO is also required by SAFETEA-LU Metropolitan Planning regulations to outline ways in which the impacts at a policy/strategy level of the plan might be mitigated. The VLMPO staff, local highway agencies and GDOT will take into consideration the environmental impacts of each project on a case-by-case basis. However, as it relates to each project the following non-inclusive list of agencies and consultation partners will be contacted: Georgia Department of Natural Resources, Environmental Protection Division, Historic Preservation Division, Parks, Recreation and Historic Sites Division, the U.S. Fish and Wildlife Service, local land use planning agencies, local and state health departments, local parks departments, US Army Corp of Engineers, local housing agencies, etc.


Transportation Projects with Natural Resources
Legend
Projects
Projects
Roads
Valdosta Urbanized Area
NWI Wetlands
Banks Lake
Grand Bay Area
County
Parks
Water Bodies
Groundwater Recharge
N
W
E
S


Transportation Projects with Historic Resources
Valdosta Area Inset
Legend
Historic Schools
Historic Churches
Cemeteries
Projects
Projects
Roads
County
National Register Historic Landmarks
Valdosta Urbanized Area
Valdosta Historic District
East End Historic District
Sunset Hills Cemetery Historic District
Brookwood North Historic District
Fairview Historic District
North Patterson Historic District
Valdosta Commercial Historic District
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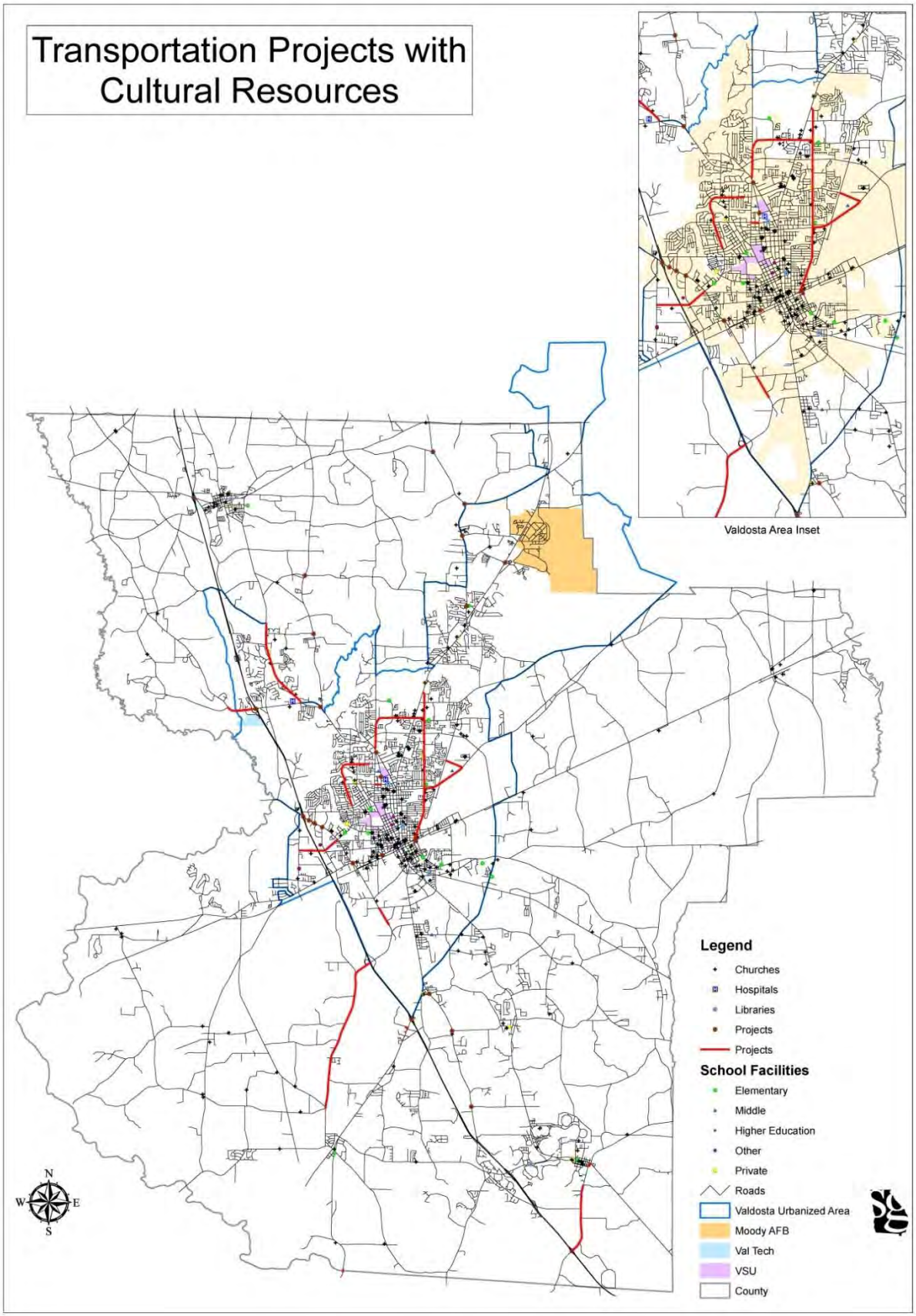
Transportation Projects with Cultural Resources
Valdosta Area Inset
Legend
Churches
Hospitals
Libraries
Projects
Projects
School Facilities
Elementary
Middle
Higher Education
Other
Private
Roads
Valdosta Urbanized Area
Moody AFB
Val Tech
VSU
County
N
W
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S

2035 TP Financial Plan

One of the requirements of SAFETEA-LU is that the metropolitan transportation plan must include a financial plan that demonstrates how the projects and policies can be implemented. The financial plan is a system-level estimate of costs and revenue sources that can be reasonably expected to be available over the next twenty-five years.

This financial plan shows a balanced budget using federal, state and local revenues for maintenance and new construction projects. Estimates for revenues were from several sources, including but not limited to GDOT, Lowndes County, and the City of Valdosta. The financial plan is presented with year-of-expenditure dollars using an annual inflation factor of 2.1% for both costs and revenue.

During the development of this Transportation Plan, GDOT asked the MPO's to use 4% annual inflation. VLMPO had already begun the planning process and was using the 2.1% (average inflation using the Consumer Price Index over the past three years). A discussion with the VLMPO Technical and Policy committees determined that the VLMPO should continue to use the 2.1% for this plan and consider adjusting the inflation rate when the plan is updated in five years.

For highways, the financial plan includes federal-aid revenue, state motor fuel tax revenue, local general fund revenue, Local Maintenance and Improvement Grants revenue (formerly called LARP and state-aid), and SPLOST (Special Purpose Local Option Sales Tax) revenue. Revenue estimates were provided by GDOT for federal and state sources. The MPO in cooperation with the City of Valdosta and Lowndes County produced estimates for local, LMIG, and SPLOST revenue sources, using recent actual expenditures.

All of these revenue sources listed above have been available for some time and are reasonable expected to continue to be available during the life of this Plan. The local SPLOST has been approved by voters on six previous occasions and helps the local community capitalize on its regional economic hub status brining in revenues from residents in surrounding communities who shop in Lowndes County.

It should be noted that during the development of this Plan the Georgia Legislature approved a regional SPLOST-like funding program that must be approved by the voters in designated regions in 2012. This funding source is not included here because it cannot reasonably be expected to be available in the future, since there is a referendum on it in the future. Although the local SPLOST also must go to a referendum, it is anticipated to continue since it has been approved six times in the past and therefore it is reasonable to expect it will be approved again in the future.

Cost estimates were developed for projects proposed in the plan by the VLMPO staff with consultation from GDOT and local engineers. Projects that are excluded from the balanced financial plan are included in the illustrative listing of projects. Projects are included in this listing for various reasons, including but not limited to: lack of funding, project is not ready for development, concept of project needs to be studied, project is anticipated to be completed beyond the horizon of the Plan, etc. In total the fiscally constrained 2035 TP has a total cost of $652,710,944.67 ($236,244,582.58 in maintenance costs, and $416,166,412.09 in new capital highway projects), leaving $530,231,276 (in current dollars) in the illustrative list.

The federal, state and local sources of revenue include money to be spent on maintenance as well as new construction projects. The estimated costs include costs for maintenance and new projects over the next twenty-five

years. In the end this financial plan is balanced per federal regulations. All costs in the financial plan include a 2.1% annual inflation rate.

Maintenance costs are developed through estimates provided by GDOT for state managed roadways, while estimates for local roadways were developed by the MPO. Using recent maintenance expenditures from local governments the financial plan first shows maintenance costs. The existing system must be preserved before any new capital projects can begin.

Costs for capital projects were estimated using current GDOT bid letting information in the Cost Estimation Software Tool, provided to MPO's. Preliminary Engineering/Environmental and Right-of-Way (includes utilities) were estimated using a percentage of construction cost for each project, based on its location and potential complexity. 10% of the cost of construction was used for Preliminary Engineering/Environmental and 5%, 10%, 20% or higher was used to estimate the cost of Right-of-Way acquisition depending on the location and surrounding land uses of each project. Costs are banded into five-year increments (2015 is 2011[1] through 2015; 2020 is 2016 through 2020). A 2.1% annual inflation factor was applied to each project in these cost bands (i.e. all projects in the 2020 cost band accounted for 10-years of inflation).

The table below demonstrates the system-level financial plan for highways.

For transit programs, the financial plan includes federal-aid revenue, state revenue and local revenue. Some of the local revenue is the fares collected by the transit operators.

Cost estimates for the proposed urban transit system are not included here as there is no timeline for the implementation of this service. Cost estimates have been prepared separately in other study reports available on the VLMPO website at www.sgrc.us/transportation.

Table 2 System Level Financial Plan for Highways

Federal/State	$378,300,000.00
Lowndes County	$184,003,021.34
City of Valdosta	$ 96,786,943.74
Lanier County	$ 0
Berrien County	$ 0
Total Revenue	**$659,089,965.08**
Maintenance Costs	$236,244,582.58
Federal/State	$66,300,000.00
Lowndes County	$140,746,286.70
City of Valdosta	$29,198,285.88
New Capital Costs	$416,466,412.09
Federal/State	$311,435,789.24
Lowndes County	$37,752,865.93
City of Valdosta	$67,277,756.92
Total Expenses	**$652,710,944.67**
Balance	**$6,378,970.41**

The cost estimates for the existing rural transit systems were developed through a review of the existing funding each system has received in the past few years, as well as interviews with the local transit operator on growth expectations and future funding concerns.

For federal transit funding each local community has an annual amount of aid they can receive, any costs above this federal aid and required match are paid for by the local government. In financial plan for public transit services, if the costs of the transit systems are more than the federal revenue and any state and local match, this overage is applied to the local government portion of the financial plan, giving them a larger share of the total revenue and costs of operating the transit systems.

The table below demonstrates the system-level financial plan for the two existing rural transit systems for this Plan. The federal, state and local sources of revenue include money to be spent on operations and maintenance, as well as new capital purchases. The estimated costs

[1] Includes remainder of 2010 as well.

include costs for maintenance and new projects over the next twenty-five years.

Table 3 System Level Financial Plan for Rural Public Transit

Federal/State	$ 6,205,569
Lowndes County	$ 11,395,118
Berrien County	$ 4,814,374
Total Revenue	**$ 22,415,063**
O/M Costs	$16,790,841
Federal/State	$1,706,192
Lowndes County	$10,591,794
Berrien County	$4,492,854
Capital Costs	$5,624,221
Federal/State	$4,499,377
Lowndes County	$803,324
Berrien County	$321,520
Total Expenses	**$22,415,063**
Balance	**$ 0**

These financial plans demonstrate that this transportation plan is financially constrained as outlined in federal regulations (23 CFR 450.322).