

Climate Change – Energy Efficiency

STATEMENT OF ISSUE

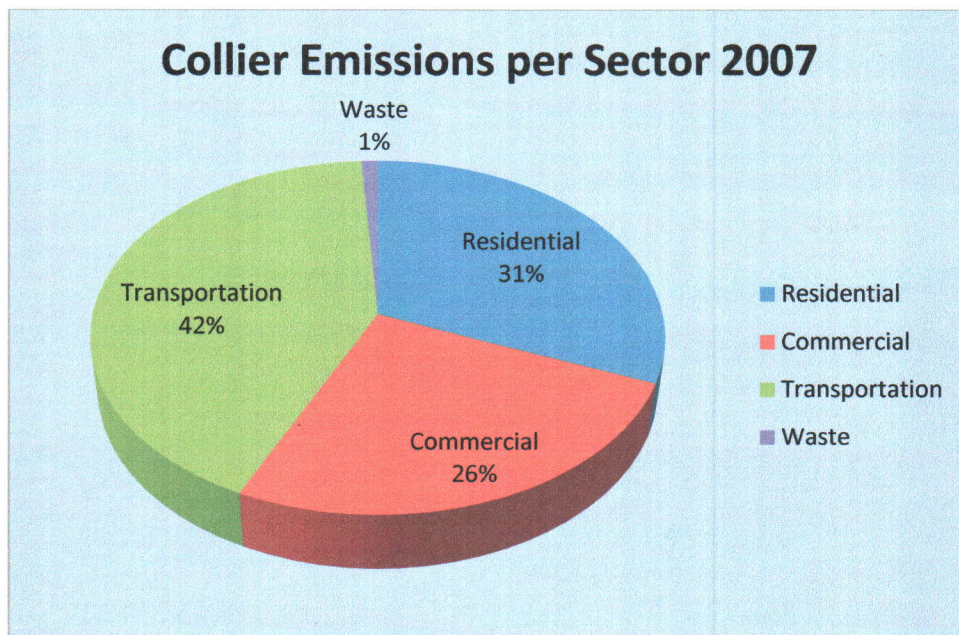
Climate Change is focused on the determination of the best ways to integrate policies related to climate change and energy efficiency to promote strategies to reduce green house gas emissions for the County.

ISSUE BACKGROUND

Land use and transportation comprise the majority of contributions to greenhouse gas emissions in Collier County. Carbon emissions from the burning of fossil fuels to power the built environment represent a potential long-term hazard to the world, but also, and in particular peninsular Florida. Greater efficiency of power use, reduction in emissions and transition to renewable forms of energy will have the greatest impact in reducing the County's carbon footprint when tied to land use planning over all other sectors.

The idea of a carbon footprint is a relatively new concept and can have a different meaning, depending on what is being measured. The general concept however, is a measure of the greenhouse gas (GHG) emissions directly, and sometimes indirectly, caused by a given individual, business, community, etc. The idea is that once a carbon footprint can be determined, efforts can be taken to reduce the footprint through mitigation, also called carbon offsets. The term is a subset of a broader concept known as the ecological footprint, which is a more comprehensive measure of an individual, business, or community's impact on the Earth's ecosystems, comparing human demand with the Earth's ability to regenerate and accommodate such demand.

As noted in the Introduction section, in 2007, the County went through a process to inventory the GHG emissions in County Government and also for the County as a whole. Further detail on this inventory is included in the final report prepared by TwentyFifty, LLC, titled, "Energy Audit and Greenhouse Gas Inventory". The below table represents the percentage breakdown of total CO₂ emissions for the County by sector in 2007.



The purpose of the inventory was to better understand the ways the County utilized energy so that effective policies and programs could be implemented to reduce costs and environmental impact.

Additionally, the inventory provides a baseline against which future energy use and emissions reductions can be measured.

The project was funded by Collier County Audubon Society, The Conservancy of Southwest Florida and National Audubon's TogetherGreen grant program and utilized the software and protocol provided by ICLEI, the International Council of Local Environmental Initiatives.

The three primary motivations for the Energy Audit Report were:

- 1) Understanding patterns of energy use can lead to saving residents/taxpayers money.
- 2) It is widely accepted that fossil fuel energy use contributes to global climate change, the extent of which will be critical for low lying regions like Collier County. Assessing and reducing emissions demonstrates responsibility to present and future residents.
- 3) Increasing numbers of state and federal programs (and grant opportunities) require municipalities to address climate change. By following the established ICLEI protocol, Collier County joins twenty four communities in Florida and hundreds nationwide willing to take action and thus demonstrate responsibility and accountability.

The report provided specific recommendation recommendations and next steps for County as follows:

- 1) Establish the following reduction targets: 10% by 2020, 20% by 2030, and 50% by 2050.
- 2) Collate a summary of the baseline inventory, all energy savings related projects, together with additional programs (including but not limited to those described below) into a comprehensive Collier County Climate Action Plan. Identify within the plan how GHG reduction measures tie into other County and regional efforts (such as the Master Mobility Plan, Coastal Management Plans and Land Development Codes). Include an assessment of the impacts of climate change and energy management in existing plans and codes to ensure the County anticipates and budgets properly for all potential changes in Collier County through at least the next forty years.
- 3) Pursue the LFGTE project along with other waste management projects.
- 4) Continue government based work: i) building energy retrofits, ii) street lighting replacements to high efficiency bulbs, iii) alternative fuel vehicles, and iv) promote the commuter services program.
- 5) Continue the community focused transportation programs such as traffic signal optimization.
- 6) Establish new community oriented programs to include: i) a community focused "Be Green when Green makes Cents" program, or equivalent and ii) a Green Business Program. (Additional programs could be described within in the planned Master Mobility Plan and potentially be funded through additional grant monies or other sources).
- 7) Carry out an energy use/greenhouse gas emissions re-inventory in 3-5 years to measure progress.

The Energy Audit was presented to and accepted by the Board of County Commissioners in November of 2009. While the Board did not provide wholesale acceptance of all of the recommendations contained in the report, the Board did, based upon the acceptance of the Report, create the Rebuilding Collier's Energy Use Task Force. The purpose of the Task Force is to explore the recommendations contained within the Report and bring suggestions back to the Board on the means to accomplishing the energy efficiencies contained in the Report.

The work of the Task Force is on-going at the time of authoring this report. In June of 2010, the Task Force began discussions with the Board regarding the development of a program to green up energy use at homes and businesses throughout the County. The program the Task Force envisions would take advantage of legislation called Property Assessed Clean Energy (PACE), signed by Gov. Crist in May, 2010. PACE sets out a financing mechanism for local governments to create a pool of money homeowners and businesses can tap for projects from electric car chargers to energy efficient windows. Other possible uses for the money include insulation upgrades, solar panels, wind turbines and energy efficient air conditioning. The full specifics and applicability of the program were still in the development stage by the Task Force at the time of authoring this report, but the PACE program and other similar efforts to increase energy efficiency within the County are expected based on the Task Force's work within the Energy Audit. The future recommendations of the Task Force, once approved by the Board are expected to intertwine with the regulatory environment of the County.

Land use decisions programmed to save energy and protect the Earth's climate have concurrent and reinforcing benefits of enhancing local quality of life and the community's unique sense of place. By enhancing the County's land use policies and regulations to discourage urban sprawl and better recognize the relationship between land use decisions and energy consequences, while preserving agricultural and natural resources, Collier County will proactively take steps to buffer against global warming's potential impact over the next century. It should be noted that between 2003 and 2009 the County's unincorporated population grew at an 11.9 percent rate, while the number of road miles grew at a 16.8 percent rate and the total developed land area grew at a 19.9 percent rate. Stronger policies interlinking land use and energy efficiency by the GMP and Land Development Code (LDC) may have created a more uniform rate of growth among these three inter-related matrix.

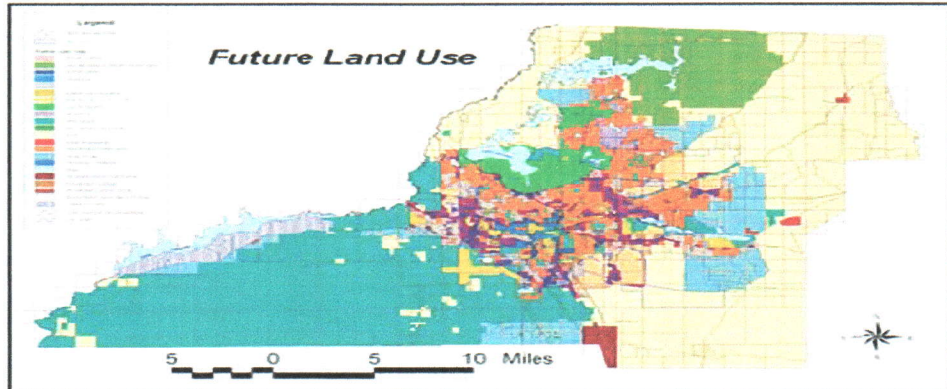
Primarily, compact development patterns are as important as promoting greater fuel efficiency in combating climate change. Locating homes in conveniently placed, walkable neighborhoods can significantly reduce the growth in the number of miles the County's citizens' drive, shrink the nation's carbon footprint, and give people more housing choices. Just as compact development can be a major contributor in reducing CO2 emissions (residents generally drive a third fewer miles than those in automobile-oriented suburbs), sprawl development, which increases the number of vehicle miles of travel, is a major contributor in increasing CO2 emissions.

The implications of the disconnect between land use and transportation planning not only manifest in greater amounts of CO2 emissions, but greater infrastructure cost to the County. Traditional Neighborhood Design based upon Smart Growth and New Urbanism principles with smaller lot sizes, compact urban form, a variety of multifamily housing types, and a mix of land uses results in infrastructure systems that serve more development in proportion to their cost to construct. In comparison, typical lower density Conventional Suburban Design alternatives require far-reaching infrastructure systems to serve lower-density development, with higher costs to build. Case studies have shown a clear reduction in infrastructure cost for scenarios with higher density.¹ The city of Tallahassee/Leon County Multimodal Transportation District Plan illustrates the cost of low density, provided on the following page.

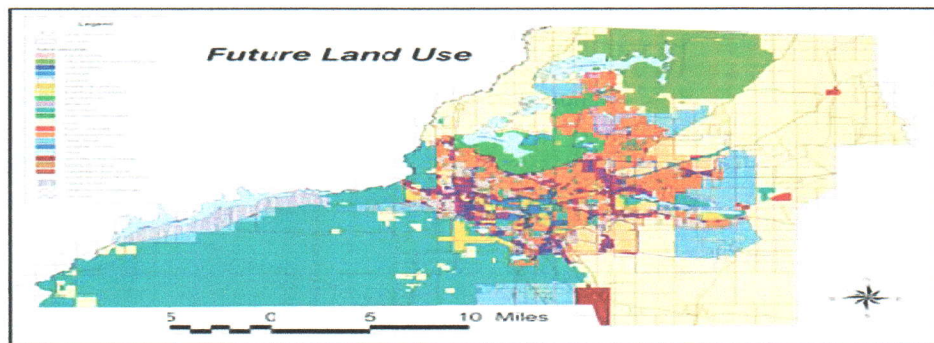
1. Smart Growth & Conventional Suburban Development: Which Costs More? An infrastructure case study completed for the EPA.

Land Needed to Accommodate Leon County's Projected Increase of 104,000 People by 2030 Based on Various Development Scenarios

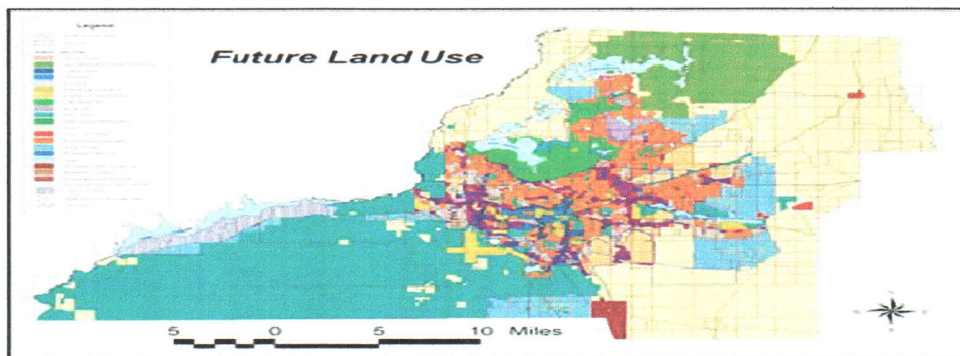
1 acre lots = 72 square miles - Lane miles to serve: 795
Cost for major roads: \$9,552,000,000; Cost per household: \$208,040



1/2 acre lots = 36 square miles - Lane miles to serve: 384
Cost for major roads: \$4,608,000,000; Cost per household: \$100,361



1/8 acre lots = 9 square miles - Lane miles to serve: 84
Cost for major roads: \$1,008,000,000 - Cost per household: \$21,954



The Collier GMP has policies allocated throughout the various elements that address energy efficiency in transportation planning, land use, residential development, and housing. Through the EAR process, the County will identify opportunities to build on the existing policy framework and/or introduce new policies specifically design to address climate change.

Population Projections and Energy Efficiency

The most recent build-out projections for the County, as provided by the Collie Inter-Active Growth Model are presented in the below table. What is significant to the issue of Climate Change is the percentage of projected growth that is allocated to Immokalee, the Rural Fringe Mixed Use District (RFMUD) and the Rural Lands Stewardship Area (RLSA). These three Districts of the GMP, with the anticipated adoption of the transmitted Immokalee Are Master Plan changes, have be designed based upon smart growth principles, which promote a range of housing opportunities, encourages the mixing of land uses, provide a variety of transportation choices and encourages the design of walkable neighborhoods.

Sub-District	Build-Out Population	Current Estimated Population	Projected Increase	Percent of Projected Increase
Immokalee	59,325	24,831	34,494	5.58%
RFMUD	35,039	4,371	30,668	4.96%
RLSA	210,695	853	209,842	33.94%
			Sub-Total	44.48%
Build-out East of CR 951	444,220	90,209	354,011	57.25%
Build-out west of CR 951	507,686	243,391	264,295	42.75%
CIGM 2010 BuildOut Projections	951,906	333,600	618,306	

The principles and concepts upon which these Districts were created are those being required by the State through HB697 to be incorporated within a jurisdictions local comprehensive plan. The Collier County Growth Management Plan has a head start in incorporating the necessary modifications needed to the planning and regulatory environment to address the challenge of Climate Change, with nearly half of the County’s future residents anticipated to live within a built environment shaped by planning principals geared to promote sustainability. It should be noted that the concepts of sustainability are spread throughout the GMP’s various Elements and will evaluated during the EAR process to identify opportunities to further their effectiveness.

House Bill 697

In 2008 the state legislature passed comprehensive energy legislation that includes several elements applicable to land use planning:

- Requires that data and analysis for the Future Land Use Element now include information about energy-efficient land use patterns accounting for existing and future electric power generation and transmission systems; and greenhouse gas reduction strategies.

- Requires that the Traffic Circulation Element incorporate transportation strategies to address reduction in greenhouse gas emissions from the transportation sector.
- Requires that the Transportation Element for urbanized areas per FS.339.175 shall address the incorporation of transportation strategies to address reduction in greenhouse gas emissions from the transportation sector.
- Requires that the Housing Element include standards, plans, and principles relating to energy efficiency in the design and construction of new housing and use of renewable resources.
- Requires an addition to Future Land Use Map series relating to energy conservation.
- Requires construction of all local government buildings begun after July 1, 2008 to meet one of the nationally recognized green building certification standards (such as the United States Green Building Council Leadership in Energy and Environmental Design – LEED)
- Requires use of ethanol and biodiesel blended fuels in government vehicles where available as well as other requirements relating to government fleets and facilities.

The Department of Community Affairs is in the process of establishing the rule development to implement the requirements of the new legislation. The most recent proposal has been included at the end of this major issue discussion.

The GMP objectives and policies related to the issue must establish the rational nexus for the creation of tools which focus on creating development that will result in fewer vehicle miles and trips and more walking, biking, and transit trips. That means compact mixed-use communities with highly connected and pedestrian-oriented street networks where jobs, housing, entertainment, and retail are in close proximity and where transit and other forms of non-vehicular transportation are a practical solution. In addition to reducing vehicle miles of travel and, therefore, GHG emissions, such communities promote healthier citizens through cleaner air and the ability to walk to more places, enable older Floridians to remain independent and in their homes longer, reduce traffic congestion and time spent in cars (and the number of cars needed by a family, which also saves money), and protect natural resources.

Comprehensive Plan Implementation

The Collier Growth Management Plan addresses the need for greater energy efficiency in multiple areas, including new developments, residential construction, and mobility options within transportation systems. Below are the existing and proposed policies (grouped by Element) contained within the various Elements of the GMP, which are designed to address the issue of energy efficiency and green house gas reduction strategies. The effectiveness of each and every one of the policies listed below is provided for within the individual element in which they are contained. To avoid unnecessary redundancy each one of those assessments will not be replicated within this section. It should be noted that a number of these Objectives and Policies are being suggested for modification to improve the overall effectiveness of the Objective or Policy.

Future Land Use Element

Policy 2.4

Pursuant to Rule 9J-5.0055(6)(a) 3., Florida Administrative Code and the Urban Infill and Urban Redevelopment Strategy contained in this Element, development located within the South U.S. 41 Transportation Concurrency Exception Area (TCEA) (See Map TR-4) may be exempt from transportation concurrency requirements, so long as impacts to the transportation system are mitigated using the procedures set forth in Policy 5.5 of the Transportation Element.

Developments within the South U.S. 41 TCEA that obtain an exception from concurrency requirements for transportation, pursuant to the certification process described in Transportation Element, Policy 5.5, and that include affordable housing (as per Section 2.06.00 the Collier County Land Development Code, as amended) as part of their plan of development shall not be subject to the Traffic Congestion Density Reduction requirement as contained in the Density Rating System of this Element.

Developments within the Northwest and East-Central TCMA's that meet the requirements of FLUE Policies 6.1 through 6.5, and Transportation Policies 5.7 and 5.8, and that include affordable housing (as per Section 2.06.00 of the Collier County Land Development Code, as amended) as part of their plan of development shall not be subject to the Traffic Congestion Density Reduction requirement as contained in the Density Rating System of this Element.

Developments within the South U.S. 41 TCEA that do not obtain certification pursuant to Policy 5.6 of the Transportation Element shall meet all concurrency requirements. Whether or not a concurrency exception is requested, developments shall be subject to a concurrency review for the purpose of reserving capacity for those trips associated with the development and maintaining accurate counts of the remaining capacity on the roadway network.

Policy 2.5

The County shall designate Transportation Concurrency Management Areas (TCMA) to encourage compact urban development where an integrated and connected network of roads is in place that provides multiple, viable alternative travel paths or modes for common trips. Performance within each TCMA shall be measured based on the percentage of lane miles meeting the LOS described in Policies 1.3 and 1.4 of the Transportation Element. Standards within TCMA's are provided in Policy 5.8 of the Transportation Element. New Development within each TCMA shall be consistent with the criteria set forth in Objective 6, and Policies 6.1 through 6.5 of this Element. The following Transportation Concurrency Management Areas are hereby designated:

- 1. Northwest TCMA – This area is bounded by the Collier - Lee County Line on the north side; the west side of the I-75 right-of-way on the east side; Pine Ridge Road on the south side; and, the Gulf of Mexico on the west side (See Map TR-5).**
- 2. East Central TCMA – This area is bounded by Pine Ridge Road on the north side; Collier Boulevard on the east side; Davis Boulevard on the south side, and; Livingston Road (extended) on the west side (See Map TR-6).**

Policy 2.6

Traffic impacts generated by new development are regulated through the implementation of a 'checkbook' transportation concurrency management system, which incorporates two Transportation Concurrency Management Areas (TCMA's) and a Transportation Concurrency Exception Area (TCEA). New developments within the TCMA's and the TCEA that commit to certain identified traffic management strategies shall reduce (the TCMA's) the traffic impact mitigation measures that would otherwise be applied to such developments.

Policy 4.7:

The Board of County Commissioners may consider whether to adopt redevelopment plans for existing commercial and residential areas. Such plans may include alternative land uses, modifications to development standards, and incentives that may be necessary to encourage

redevelopment. The Bayshore/Gateway Triangle Redevelopment Plan was adopted by the Board on March 14, 2000; it encompasses the Bayshore Drive corridor and the triangle area formed by US 41 East, Davis Boulevard and Airport-Pulling Road. Other specific areas that may be considered by the Board of County Commissioners for redevelopment include, but are not necessarily limited to:

- a. Pine Ridge Road, between U.S. 41 North and Goodlette-Frank Road;
- b. U.S. 41 North in Naples Park; and,
- c. Bonita Beach Road between Vanderbilt Drive and the west end of Little Hickory Shores #1 Subdivision.

Policy 5.3:

Discourage unacceptable levels of urban sprawl in order to minimize the cost of community facilities by: confining urban intensity development to areas designated as Urban on the Future Land Use Map; requiring that any changes to the Urban Designated Areas be contiguous to an existing Urban Area boundary; and, encouraging the use of creative land use planning techniques and innovative approaches to development in the County's Agricultural/Rural designated area, which will better serve to protect environmentally sensitive areas, maintain the economic viability of agriculture and other predominantly rural land uses, and provide for cost efficient delivery of public facilities and services.

Policy 5.5:

Encourage the use of land presently designated for urban intensity uses before designating other areas for urban intensity uses. This shall occur by planning for the expansion of County owned and operated public facilities and services to existing lands designated for urban intensity uses, the Rural Settlement District (formerly known as North Golden Gate), and the Rural Fringe Mixed Use District, before servicing new areas.

Policy 5.6:

Permit the use of clustered residential development, Planned Unit Development techniques, mixed-use development, rural villages, new towns, satellite communities, transfer of development rights, agricultural and conservation easements, and other innovative approaches, in order to conserve open space and environmentally sensitive areas. Continue to review and amend the zoning and subdivision regulations as necessary to allow and encourage such innovative land development techniques.

Within the Rural Land Stewardship Area Overlay to date, there has been a total of 16 Stewardship Sending Areas, comprising approximately 55, 956 acres of environmentally sensitive and agriculturally viable lands which have been set aside from development, with a total of 5,027 acres designated SRA with 1,027 acres of that total dedicated to public use benefit. Additionally, the SRA was designed upon smart growth principals and the spatial relationship between dwelling units and supporting land uses.

Within the Rural Fringe Mixed Use District there are a total of 20,617 acres designated sending that are eligible to sever their development right. It should be noted that this acreage does not include all designated sending lands due to those lands being in public ownership and not eligible for the TDR program. Of the 20,617 acres, 17.5 percent or 3,615 acres have had or are in the process of having their TDR's separated through voluntary participation in the program. Based upon the above estimates

there are potentially 15,819 TDR's, of which 12.7 percent or 2,019 TDR's have been generated through participation in the program. Of the 2,019 TDR's which have been generated to date, 300 TDR's or 14.8 percent of the TDR's generated have been redeemed.

Objective 6

Transportation Concurrency Management Areas (TCMAs) are geographically compact areas designated in local government comprehensive plans where intensive development exists, or such development is planned. New development within a TCMA shall occur in a manner that will ensure an adequate level of mobility (as defined in Policy 5.8 of the Transportation Element) and further the achievement of the following identified important state planning goals and policies: discouraging the proliferation of urban sprawl, protecting natural resources, protecting historic resources, maximizing the efficient use of existing public facilities, and promoting public transit, bicycling, walking and other alternatives to the single occupant automobile. Transportation Concurrency Management Areas are hereby established in the specific geographic areas described in Policy 2.5 of this Element.

The County through the Annual Update and Inventory Report (AUIR) provides for the annual assessment of the County's 167.5 lane miles within a TCMA to ensure that these areas are providing alternatives to traditional road capacity demand solutions. Provided at the conclusion of this major issue is the County's TCMA reports from 2006 to 2010 or Attachment "I". These reports indicate that the volume to capacity ratio for these lane miles has been maintained. While the County has not specifically identified the number of projects that have developed within the TCMAs over the evaluation period, each project was/is required per the GMP to utilize two of the Transportation Demand Management strategies articulated in policy 6.2 to satisfy the Concurrency Management system. This allows for development to move forward in an area in which services and infrastructure are readily available, but due to density and intensity of surrounding uses couldn't move forward on traditional solutions of additional land capacity, which is directly related to the County's mandate to discourage urban sprawl.

Policy 6.1

Collier County's designated Transportation Concurrency Management Areas (TCMAs) shall discourage the proliferation of urban sprawl by promoting residential and commercial infill development and by promoting redevelopment of areas wherein current zoning was approved prior to the establishment of this Growth Management Plan (January 10, 1989). Infill development and redevelopment within the TCMAs shall be consistent with Objective 5, and relevant subsequent policies, of this Element.

Policy 6.2

In order to be exempt from link specific concurrency, new commercial development or redevelopment within Collier County's designated Transportation Concurrency Management Areas (TCMAs) shall utilize at least two of the following Transportation Demand Management (TDM) strategies, as may be applicable:

- a) **Preferential parking for carpools and vanpools that is expected to increase the average vehicle occupancy for work trips generated by the development.**
- b) **Parking charge that is expected to increase the average vehicle occupancy for work trips generated by the development and/or increase transit ridership.**
- c) **Cash subsidy that is expected to increase the average vehicle occupancy for work trips generated by the development and/or increase transit ridership.**

- d) Flexible work schedules that are expected to reduce peak hour automobile work trips generated by the development.
- e) Compressed workweek that would be expected to reduce vehicle miles of travel and peak hour work trips generated by the development.
- f) Telecommuting that would reduce the vehicle miles of travel and peak hour work trips generated by the development.
- g) Transit subsidy that would reduce auto trips generated by the development and increase transit ridership.
- h) Bicycle and Pedestrian facilities that would be expected to reduce vehicle miles of travel and automobile work trips generated by the development.
- i) Including residential units as a portion of a commercial project that would reduce vehicle miles of travel.
- j) Providing transit shelters within the development (must be coordinated with Collier County Transit).

Policy 6.3:

In order to be exempt from link specific concurrency, new residential development or redevelopment within Collier County's designated Transportation Concurrency Management Areas (TCMAs) shall utilize at least two of the following Transportation Demand Management (TDM) strategies, as may be applicable:

- a) Including neighborhood commercial uses within a residential project.
- b) Providing transit shelters within the development (must be coordinated with Collier County Transit).
- c) Providing bicycle and pedestrian facilities, with connections to abutting commercial properties.
- d) Including affordable housing (minimum of 25% of the units) within the development.
- e) Vehicular access to abutting commercial properties.

Policy 7.1

The County shall encourage developers and property owners to connect their properties to fronting collector and arterial roads, except where no such connection can be made without violating intersection spacing requirements of the Land Development Code.

Policy 7.2

The County shall encourage internal accesses or loop roads in an effort to help reduce vehicle congestion on nearby collector and arterial roads and minimize the need for traffic signals.

Policy 7.3

All new and existing developments shall be encouraged to connect their local streets and their interconnection points with adjoining neighborhoods or other developments regardless of land use type.

Policy 7.4

The County shall encourage new developments to provide walkable communities with a blend of densities, common open spaces, civic facilities and a range of housing prices and types.

Policy 7.5:

The County shall encourage mixed-use development within the same buildings by allowing residential dwelling units over and/or abutting commercial development. This policy shall be implemented through provisions in specific subdistricts in this Growth Management Plan.

Policy 7.6

The County shall explore the creation of an urban “greenway” network along existing major canal banks and powerline easements.

Policy 7.7

The Community Development and Environmental Services Division will continue to research smart growth practices in an effort to improve the future of Collier County by specifically addressing land use and transportation planning techniques for inclusion in future land development regulations.

Rural Lands Stewardship Area Overlay

Goal

Collier County seeks to address the long-term needs of residents and property owners within the Immokalee Area Study boundary of the Collier County Rural and Agricultural Area Assessment. Collier County’s goal is to protect agricultural activities, to prevent the premature conversion of agricultural land to non-agricultural uses, to direct incompatible uses away from wetlands and upland habitat, to enable the conversion of rural land to other uses in appropriate locations, to discourage urban sprawl, and to encourage development that utilizes creative land use planning techniques.

The evaluation of the effectiveness is provided for within the RLSA major issue of this EAR report and the attached Phase One and Phase Two report generated during the County 5-year review of the RLSA Overlay.

Policy 1.2

The Overlay protects natural resources and retains viable agriculture by promoting compact rural mixed-use development as an alternative to low-density single use development, and provides a system of compensation to private property owners for the elimination of certain land uses in order to protect natural resources and viable agriculture in exchange for transferable credits that can be used to entitle such compact development. The strategies herein are based in part on the principles of Florida’s Rural Lands Stewardship Act, Chapter 163.3177(11) F.S. The Overlay includes innovative and incentive based tools, techniques and strategies that are not dependent on a regulatory approach, but will complement existing local, regional, state and federal regulatory programs.

Group 2 – Policies to protect agricultural lands from premature conversion to other uses and continue the viability of agricultural production through the Collier County Rural Lands Stewardship Area Overlay.

Group 4 - Policies to enable conversion of rural lands to other uses in appropriate locations, while discouraging urban sprawl, and encouraging development that utilizes creative land use planning techniques by the establishment of Stewardship Receiving Areas.

Transportation Element

Objective 4 - The County shall provide for the safe and convenient movement of pedestrians and non-motorized vehicles through the implementation of the Collier County Comprehensive Pathways Plan.

Policy 4.1 - The County shall incorporate the Collier County Comprehensive Pathways Plan into this Transportation Element by reference and shall periodically update the Pathways Plan as needed.

Policy 4.2 - The County shall provide an interconnected and continuous bicycle and pedestrian system by constructing the improvements identified on the 2030 Pathway Facilities Map series as funds permit.

Policy 4.3 - The County's pathways construction program should be consistent with the Comprehensive Pathways Plan to the maximum extent feasible.

Policy 4.4 - The County shall annually adopt a Five (5) Year Pathways Work Program, which establishes pathway priorities, including projects to retrofit existing streets to accommodate bicycles and pedestrians.

Policy 4.5 - The County shall, to the greatest extent possible, identify state and federal funds and provide local funds for the implementation of the 5 Year Pathways Work Program.

Policy 4.6 - The County shall provide for the safe movement of non-motorized vehicles through implementation of its Land Development Code and highway design standards ordinances and shall incorporate bike lanes, sidewalks and pathways, as deemed appropriate, in new construction and reconstruction of roadways.

Policy 4.7 - The County shall incorporate bike lanes in roadway resurfacing projects as is physically possible and will not result in a safety or operational problem.

Policy 4.8 - The County shall follow the most current bicycle and pedestrian facilities design and construction standards, as developed by the Florida Department of Transportation.

Policy 4.9 - The County shall work to reduce Vehicle Miles Traveled and Greenhouse Gas Emission by providing for the safe movement of non-motorized vehicles through implementation of its Land Development Code and highway design standards ordinances and shall incorporate bike lanes, sidewalks and pathways, as deemed appropriate, in new construction and reconstruction of roadways. - Proposed

Objective 5 - The County shall coordinate the Transportation System development process with the Future Land Use Map.

The 2035 Long Range Transportation Plan scheduled to be adopted by the Collier Metropolitan Planning Organization (MPO), the basis for how improvements move from the planning spectrum to the construction phase to additions to the transportation system was based upon land use modeling as provided for by the Collier Inter-Active Growth Model (CIGM). The CIGM was accepted by the Board of County Commissioners in January of 2009 as an additional planning tool to be utilized by the County. The CIGM projects population in a spatially distributed manner that is based upon the regulatory allowances contained within the GMP and the individual sub districts contained within.

This fact further strengthens the tie between the County's long range transportation and land use planning, which in turn is anticipated to reduce inefficient public expenditures regarding needed improvements.

Policy 5.4 - Pursuant to Rule 9J-5.0055(6)(a)3., Florida Administrative Code and the Urban Infill and Urban Redevelopment Strategy contained in the Future Land Use Element of this Plan, the South U.S. 41 Transportation Concurrency Exception Area (TCEA) is hereby designated. Development located within the South U.S. 41 TCEA (MapTR-4) may be exempt from transportation concurrency requirements, so long as impacts to the transportation system are mitigated using the set procedures.

Policy 5.5 - Commercial developments within the South U.S. 41 TCEA that choose to obtain an exception from concurrency requirements for transportation will provide certification from the Transportation Planning Department that at least four Transportation Demand Management (TDM) strategies will be utilized.

Policy 5.6 - The County shall designate Transportation Concurrency Management Areas (TCMAs) to encourage compact urban development where an integrated and connected network of roads is in place that provide multiple, viable alternative travel paths or modes for common trips. Performance within each TCMA shall be measured based on the percentage of lane miles meeting the LOS described in this Transportation Element, Policies 1.3 and 1.4 of this Element. The following Transportation Concurrency Management Areas are designated: Northwest TCMA – This area is bounded by the Collier - Lee County Line on the north side; the west side of the I-75 right-of-way on the east side; Pine Ridge Road on the south side; and, the Gulf of Mexico on the west side (Map TR-5). East Central TCMA – This area is bounded by Pine Ridge Road on the north side; Collier Boulevard on the east side; Davis Boulevard on the south side, and; Livingston Road (extended) on the west side (Map TR-6).

Policy 7.4 - The County shall develop corridor management plans that take into consideration urban design and landscaping measures that will promote positive development along the major arterial entrances to the urban area. Such plans shall take into account the recommendations of the Community Character Plan, County-sponsored Smart Growth initiatives, and the impacts of the South US 41 Transportation Concurrency Exception Area (TCEA) and the two (2) Transportation Concurrency Management Areas (TCMAs) as the Board of County Commissioners may periodically appropriate funding for these plans.

Objective 9 - The County shall encourage neighborhood involvement in the establishment and maintenance of safe and pleasant conditions for the residents, pedestrians, bicyclists and motorists on neighborhood streets, which are not classified as arterials or collectors through the implementation of the Collier County Neighborhood Traffic Management Program (NTMP). In developing strategies and measures to encourage such conditions, the NTMP shall consider the impact of such strategies and measures on the adjacent arterial and collector systems (from a level-of-service and operational standpoint).

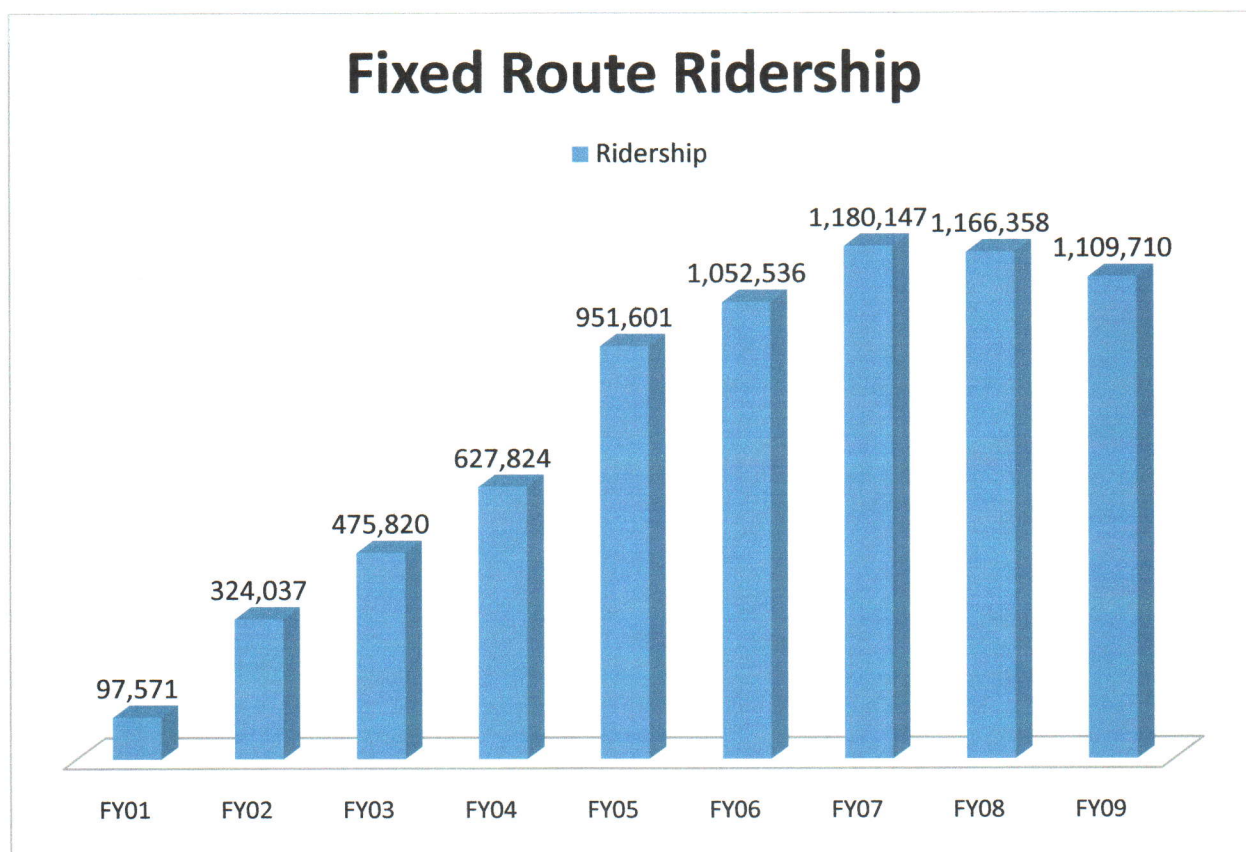
Policy 9.3 - The County shall require, wherever feasible, the interconnection of local streets between developments to facilitate convenient movement throughout the road network. The Collier County Transportation Division shall develop guidelines, which identify the conditions that would require the interconnection of two neighboring developments, and shall also develop standards and criteria for the safe interconnection of such local streets.

Policy 9.5 - The County shall encourage projects which provide local resident, pedestrian, bicyclist and motorist movement between and among developments on neighborhood streets in a deliberate balance with its efforts to route cut-through traffic away from neighborhoods and to the arterials and collectors designated in this Transportation Element of the Collier County Growth Management Plan.

Policy 10.2 - The County shall continue to improve transit services for the transportation disadvantaged in the rural areas through the Community Transportation Coordinator (CTC).

Objective 12 - The County shall encourage the efficient use of transit services now and in the future.

As part of the 2011 EAR, Collier County has committed to explore the feasibility of developing a separate, stand alone Public Transit Element within the Growth Management Plan (GMP), to provide for transit and transit oriented design appropriate standards and guidelines. Below is a chart documenting the ridership of the Collier Area Transit (CAT) system.



Policy 12.1 - The Collier County Metropolitan Planning Organization, through the Transportation Disadvantaged Program shall assist the local community transportation coordinator in the implementation of the most efficient and effective level of service possible for the transportation disadvantaged. The Transportation Disadvantaged Program shall be implemented through the County's regular bus system.

Policy 12.2 - The County Transportation Division and the Collier County Metropolitan Planning Organization shall coordinate the development and maintenance of transit development plans with the Florida Department of Transportation.

Policy 12.4 - The County shall, in recognition that the potential for public transit service between Bonita Springs, in Lee County, and Naples, in Collier County, exists, consider any intergovernmental efforts, which are necessary to bring about such service.

Policy 12.9 - The County shall include capital expenditures for any adopted transit development plan in the Capital Improvement Element.

Policy 12.10 - The County shall incorporate herein by reference the most recent Public Transit Development Plan adopted by the Board of County Commissioners.

Conservation & Coastal Management Element

Policy 2.4.2:

The County shall request the Department of Environmental Protection staff to participate in the development of future coastal and watershed management plans.

OBJECTIVE 3.1:

Ground water quality shall meet all applicable Federal and State water quality standards. Ground water quality shall be monitored in order to determine whether development activities are contributing to the degradation of Collier County's ground water quality. Ground water data and land use activities will be assessed annually to determine long-term trends and whether the County is meeting Federal and State regulatory standards for ground water quality. The County shall require ground water monitoring of land uses in accordance with Chapters 62-520, 62-550 and 62-777 of the Florida Administrative Code. Upon the detection of any ground water degradation determined through the monitoring process, the County will notify the appropriate regulatory agencies.

In a coordinated effort with the United States Geological Survey (USGS), or of its own accord, the County shall institute a groundwater monitoring network by 2008, including the comprehensive inventory of monitoring wells, an assessment of monitoring wells previously damaged, and policies to make appropriate well repairs and replacements.

Policy 3.1.1:

Wellhead protection areas identified on the Future Land Use Map Series shall be protected as follows:

- 1. Wellhead protection areas shall consist of four (4) Wellfield Risk Management Zones defined as follows:**
 - a) W-1 is the land area surrounding the identified potable water wellfield wellheads and extends to the five percent ground water capture zone boundary line (which approximates the one year ground water travel time to the wellfield).**
 - b) W-2 is the land area between the W-1 boundary line and the ten percent ground water capture zone boundary line (which approximates the two year ground water travel time to the potable water wellfield).**
 - c) W-3 is the land area between the W-2 boundary line and the twenty-five percent ground water capture zone boundary line (which approximates the five year ground water travel time to the potable water wellfield).**
 - d) W-4 is the land area between the W-3 boundary line and the 100 percent ground water capture zone boundary line (which approximates the twenty year ground water travel time to the potable water wellfield).**

2. Land uses are restricted within the wellfield risk management zones as follows:
 - a) Future solid waste disposal facilities: prohibited in all wellfield risk management zones.
 - b) Future solid waste transfer stations: prohibited in W-1, W-2, W-3.
 - c) Future solid waste storage, collection, and recycling storing hazardous products and hazardous wastes: prohibited in W-1, W-2, W-3.
 - d) Future non-residential uses involving hazardous products in quantities exceeding 250 liquid gallons or 1,000 pounds of solids: provide for absorption or secondary containment in W-1, W-2, W-3.
 - e) Future domestic wastewater treatment plants: prohibited in W-1.
 - f) Future land disposal systems: must meet high level disinfection standards as found in 40 CFR part 135.
 - g) Land application of domestic residuals: limit metal concentrations, nitrogen based on uptake ability of vegetation), and require a conditional use.
 - h) Future petroleum exploration and production and expansions of existing: prohibited in W-1 and W-2, conditional use required in W-3 and W-4.
 - i) Future on-site disposal systems (septic tanks) requiring a soil absorption area greater than 1,000 square feet are allowed to discharge in zone W-1 subject to complying with construction standards and provision of an automatic dosing device and a low-pressure lateral distribution.
 - j) On-site sewage disposal systems (septic tanks) serving existing industrial uses and subject to the thresholds in d) and e) above within wellfield zones W-1, W-2, and W-3 shall meet all construction and operating standards contained in 64E-10, F.A.C. as the rule existed on August 31, 1999 and shall implement a ground water monitoring plan.
3. Conditional uses shall be granted only in extraordinary circumstances and where impacts of the development will be isolated from the Surficial and Intermediate Aquifer.

OBJECTIVE 3.2:

The County shall implement a well construction compliance program under criteria specified in the Collier County Well Construction Ordinance, which is designed to ensure proper construction of wells and promote aquifer protection.

Policy 3.4.1:

Continue the existing water quality monitoring program to provide base-line data, evaluate long-term trends, identify water quality problems, and evaluate the effectiveness of the County's ground water protection program.

OBJECTIVE 8.1:

All activities in the County shall comply with all applicable federal and State air quality standards.

Policy 8.1.1:

The County will rely on the Florida Department of Environmental Protection, the Florida Division of Forestry or the local fire departments as appropriate under their jurisdiction to permit and visually inspect the permitted air pollutant sources in the County.

Policy 8.1.2:

The County will receive complaints concerning air pollution problems and refer such complaints to the Florida Department of Environmental Protection, the Florida Division of Forestry, or the local fire departments as appropriate.

Policy 8.1.3:

Collier County shall act to reduce air pollution from automobile emissions through continuation of the following procedures:

- 1. The Collier County Sheriff's Office will continue to enforce vehicle exhaust emissions standards.**
- 2. As part of its development review process, Collier County will require the construction of sidewalks, bicycle lanes or bicycle paths in all new subdivisions.**
- 3. The County will construct sidewalks, bicycle lanes or bicycle paths in conjunction with County-funded transportation improvements.**

Policy 8.1.4:

Collier County shall continue to develop and maintain a comprehensive county-wide air quality monitoring program.

Policy 10.4.7:

Collier County shall prohibit construction seaward of the Coastal Construction Setback Line except where such construction would be permitted pursuant to the provisions of the Florida Coastal Zone Protection Act of 1985, where such prohibition would result in no reasonable economic utilization of the property in question, or for safety reasons. In such cases, construction will be as far landward as is practicable and effects on the beach and dune system and the natural functions of the coastal barrier system shall be minimized.

Policy 10.4.9:

Collier County shall prohibit seawall construction on properties fronting the Gulf of Mexico except in instances where erosion poses an imminent threat to existing buildings.

Potable Water Sub- Element

Policy 5.1:

The County shall discourage urban sprawl by permitting universal availability of central potable water systems only: in the Designated Urban Area, in Receiving and certain Neutral Lands within the Rural Fringe Mixed Use District, in the Designated Urban-Rural Fringe Transition Zone Overlay, and in the Rural Settlement District, all of which are depicted on the Future Land Use Map, and in Towns, Villages, Hamlets and Compact Rural Developments within the Rural Lands Stewardship Area Overlay. These areas are further identified as: within the Collier County Water District Boundaries on Figure PW-1 of the Potable Water Sub-element, except the outlying urban areas of Immokalee, Copeland, Chokoloskee, Plantation Island, and Port of the Islands; or within the Rural Transition Water and Sewer District Boundaries on Figure PW-2 of the Potable Water Sub-element; or in Sending Lands within the Rural Fringe Mixed Use District when Density Blending, as provided for in the Density Rating System of the Future Land Use Element, is utilized; within the Rural Lands Stewardship Area Overlay, as each Town, Village, Hamlet, and Compact Rural Development is designated; and, in areas where the County has legal commitments to provide facilities and service outside the Urban Area as of the date of adoption of this Plan.

Policy 5.2:

The County shall discourage urban sprawl and the proliferation of private sector and/or package potable water treatment systems through the development order approval process to ensure maximum utilization of the existing and planned public facilities. No existing private sector or potable water treatment systems shall be permitted to add customers unless all Levels of Service Standards are met, and operations are in conformance with all FDEP permits.

Housing Element – Proposed Objective and Policies

OBJECTIVE 9:

Collier County shall support housing programs that encourage the development of energy efficient and environmentally sensitive housing.

Policy 9.1:

The County will encourage the construction of energy efficient housing by exploring innovative regulations that promote energy conserving and environmentally sensitive technologies and design.

Policy 9.2:

The County shall educate the public about the economic and environmental benefits of resource efficient design and construction.

Policy 9.3:

The County shall expedite plan review of housing projects that promote energy conservation and design.

Policy 9.4:

The County shall continue to encourage the development of mixed housing types near employment centers in order to reduce Green House Gas emissions and minimize carbon footprints.

Policy 9.5:

The County shall promote the incorporation of US EPA Energy Star Building and Appliances programs into construction and rehabilitation practices.

Recreation & Open Space Element

Policy 1.3.1:

County-owned or managed parks and recreation facilities shall have automobile, bicycle and/or pedestrian access, where the location is appropriate and where such access is economically feasible.

Policy 2.1.2:

The County shall amend the Land Development Code to require the developer of a residential PUD, or a PUD having a residential component, to provide its residents and guests with a *suitable neighborhood park*, as determined on a case-by-case basis, which is, as required by Policy 5.4 in the Future Land Use Element, compatible with the surrounding development.

Policy 3.1.6:

The County shall encourage the development of pedestrian pathways and bike lanes from the surrounding residential communities to park sites where general public access can be supported.

Conclusion

The Collier County GMP is interspersed with Policy and Objectives that have a direct linkage to the issue of climate change, during this EAR review each of Elements were reviewed to identify areas where the Objectives and Policies could be made more effective in attaining their specified goal, which commutatively formulate the County's growing response to the issue of Climate Change.

Public Comments Received

- *County should be studying ideas to target Green House Gas sources – besides transportation. Observational*
- *County should be studying ideas to address lack of energy efficiency plans. Observational*
- *County should be studying ideas to address need to plan for Sea Level Rise. Observational*
- *County should be studying ideas to access & connect State Parks with County Network. Observational*
- *Promote and encourage safe bike/walk, including education to improve safety of bike/pedestrians routes to reduce number of miles driven, especially school drop-off. Policy 4.2 Transportation Element.*
- *Reduce gaps between CAT stops. Explore feasibility of bike rentals at CAT stops to minimize gaps in the existing networks of bike/pedestrians pathways. Programmatic*
- *Increase mass transit availability (CAT). Policy 12.10 Transportation Element*
- *Create bike/pedestrians pathways on canal banks to separate bike routes from vehicle traffic. Programmatic*
- *Do not use Vehicle Miles Traveled (VMT) reduction as an excuse to build more commercial in neighborhoods where they were not planned nor vetted through a local master plan process. Observational*
- *Flooding as a result of climate change will affect current population estimates, County needs to revise estimates. Observational*
- *Include more bridges (Golden Gate Estates) to reduce fuel consumption and safety. Policy 9.3 Transportation Element/ GGAMP Restudy*
- *Create County-wide storm water management to address sea level rise. Policy 2.1.5 Conservation and Coastal Management Element*
- *Standards to address Climate Change need to be different for Golden Gate Estates (than urban coastal zones). Observational*
- *Allow low density areas in Golden Gate Estates. Observational*
- *Make CAT cost more affordable. Observational*
- *Increase Mass Transit instead of road widening. Policy 3.3 Transportation Element*
- *Increase bike lanes. Policy 4.5 Transportation Element*
- *Need to address sea level rise due to climate change. Observational*

Attachment I

TCMA Report

Collier County Transportation Concurrency Management System

East Central TCMA

160	Pine Ridge Road	Airport Road	Livingston Rd.	0.82	2.09	6	12.6
68	Pine Ridge Road	I-75	Logan Boulevard	0.64	0.99	6	6.0
70	Radio Road	Livingston Road	Santa Barbara Boulevard	0.58	2.00	4	8.0
71	Radio Road	Santa Barbara Boulevard	Davis Boulevard	0.37	1.34	4	5.4
76	Santa Barbara Boulevard	Green Boulevard	Golden Gate Parkway	0.80	1.70	4	6.8
77	Santa Barbara Boulevard	Golden Gate Parkway	Radio Road	0.55	1.40	6	8.4
78	Santa Barbara Boulevard	Radio Road	Davis Boulevard	0.39	1.05	6	6.3
125	Pine Ridge Road	Logan Boulevard	Collier Boulevard	0.52	1.88	4	7.5
14	Davis Boulevard	Lakewood Boulevard	County Barn Road	0.74	1.71	4	6.8
15	Davis Boulevard	County Barn Road	Santa Barbara Boulevard	0.70	0.75	4	3.0
148	Davis Boulevard	Santa Barbara Boulevard	Radio Rd.	1.12	2.62	2	5.2
21	Golden Gate Parkway	I-75	Santa Barbara Boulevard	0.55	1.01	6	6.1
22	Golden Gate Parkway	Santa Barbara Boulevard	Collier Boulevard	0.89	2.21	4	8.8
27	Green Boulevard	Santa Barbara Boulevard	Collier Boulevard	0.56	1.99	2	4.0
154	Collier Boulevard	Green Boulevard	Golden Gate Pwky	0.96	2.06	4	8.2
33	Collier Boulevard	I-75	Davis Boulevard	1.06	0.56	4	2.2
49	Logan Boulevard	Pine Ridge Road	Green Boulevard	0.59	0.88	4	3.5
54	Livingston Road	Pine Ridge Road	Golden Gate Parkway	0.44	2.60	6	15.6
55	Livingston Road	Golden Gate Parkway	Radio Road	0.38	1.41	6	8.5
149	Davis Boulevard	Radio Rd.	Collier Boulevard	1.23	2.32	4	9.3
155	Collier Boulevard	Golden Gate Pwky	I-75	0.92	2.99	4	12.0
161	Pine Ridge Road	Livingston Rd.	I-75	0.94	2.20	6	13.2

Total Lane Miles: 167.5

Lane Miles <=1.0 V/C: 150.7

Percent Lane Miles Meeting Standard: 90.0%

TCMA Report

Collier County Transportation Concurrency Management System

Northwest TCMA

66	Pine Ridge Road	Shirley Street	Airport Road	0.77	0.81	6	4.9
98	Tamiami Trail North	Lee County Line	Wiggins Pass Road	0.72	1.67	6	10.0
99	Tamiami Trail North	Wiggins Pass Road	Immokalee Road	0.91	1.52	6	9.1
100	Tamiami Trail North	Immokalee Road	Vanderbilt Beach Road	0.82	1.51	6	9.1
101	Tamiami Trail North	Vanderbilt Beach Road	Gulf Park Drive	0.72	1.26	6	7.6
102	Tamiami Trail North	Gulf Park Drive	Pine Ridge Road	0.64	1.44	6	8.6
109	Vanderbilt Beach Road	Gulfshore Drive	Tamiami Trail	0.72	1.34	2	2.7
162	Vanderbilt Beach Road	Tamiami Trail	Goodlette-Frank Road	0.92	1.87	4	7.5
164	Vanderbilt Beach Road	Airport Road	Livingston Rd.	0.48	3.22	6	19.3
114	Vanderbilt Drive	Lee County Line	Wiggins Pass Road	0.48	2.52	2	5.0
115	Vanderbilt Drive	Wiggins Pass Road	111th Avenue	0.41	1.49	2	3.0
117	Wiggins Pass Road	Vanderbilt Drive	Tamiami Trail	0.48	1.05	2	2.1
1	Airport Road	Immokalee Road	Vanderbilt Beach Road	0.64	1.97	4	7.9
146	Airport Road	Vanderbilt Beach Road	Orange Blossom Dr.	0.54	1.53	6	9.2
150	Golden Gate Parkway	Airport Road	Livingston Rd.	0.56	1.97	6	11.8
23	Goodlette-Frank Road	Immokalee Road	Vanderbilt Beach Road	0.70	1.80	2	3.6
24	Goodlette-Frank Road	Vanderbilt Beach Road	Pine Ridge Road	0.54	2.42	6	14.5
39	111th Avenue N.	Gulfshore Drive	Vanderbilt Drive	0.37	0.51	2	1.0
40	111th Avenue N.	Vanderbilt Drive	Tamiami Trail	0.44	1.00	2	2.0
156	Immokalee Road	Tamiami Trail	Goodlette-Frank Rd.	0.63	1.47	6	8.8
158	Immokalee Road	Airport Road	Livingston Rd.	0.81	1.96	6	11.8
51	Livingston Road	Imperial Street	Immokalee Road	0.37	3.31	6	19.8
52	Livingston Road	Immokalee Road	Vanderbilt Beach Road	0.39	1.99	6	12.0
53	Livingston Road	Vanderbilt Beach Road	Pine Ridge Road	0.40	2.21	6	13.3
63	Seagate Drive	Crayton Road	Tamiami Trail	0.52	0.48	4	1.9
64	Pine Ridge Road	Tamiami Trail	Goodlette-Frank Road	0.75	0.50	6	3.0
65	Pine Ridge Road	Goodlette-Frank Road	Shirley Street	0.77	0.67	6	4.0
147	Airport Road	Orange Blossom Dr.	Pine Ridge Rd.	0.55	2.92	6	17.5

151	Golden Gate Pwky	Livingston Rd.	I-75	0.60	1.97	6	11.8
157	Immokalee Road	Goodlette-Frank Rd.	Airport Road	0.81	2.47	6	14.8
159	Immokalee Road	Livingston Rd.	I-75	1.30	1.78	4	7.1
163	Vanderbilt Beach Road	Goodlette-Frank Rd.	Airport Road	1.03	2.40	4	9.6
165	Vanderbilt Beach Road	Livingston Rd.	Logan Blvd.	0.55	3.11	6	18.7

Total Lane Miles: 293.2
Lane Miles <=1.0 V/C: 276.4
Percent Lane Miles Meeting Standard: 94.3%

TCMA Report - 2009 AUIR

Collier County Transportation Concurrency Management System

AUIR ID	Name	From	To	PkHr-PkDir V/C Ratio	Length	# Lanes	Lane Miles
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East Central TCMA

14.0	Davis Boulevard	Lakewood Boulevard	County Barn Road	0.79	1.71	4	6.84
15.0	Davis Boulevard	County Barn Rd	Santa Barbara Boulevard	0.74	0.75	4	3.00
16.1	Davis Boulevard	Santa Barbara Boulevard	Radio Road	1.24	1.75	2	3.50
16.2	Davis Boulevard	Radio Road	Collier Boulevard	1.28	0.65	2	1.30
21.0	Golden Gate Parkway	I-75	Santa Barbara Boulevard	0.59	1.10	6	6.60
22.0	Golden Gate Parkway	Santa Barbara Boulevard	Collier Boulevard	0.89	2.10	4	8.40
27.0	Green Boulevard	Santa Barbara Boulevard	Collier Boulevard	0.80	2.00	2	4.00
32.1	Collier Boulevard	Green Boulevard	Golden Gate Parkway	0.91	1.04	4	4.16
32.2	Collier Boulevard	Golden Gate Parkway	I-75	0.95	1.27	4	5.08
33.0	Collier Boulevard	I-75	Davis Boulevard	1.14	0.78	4	3.12
49.0	Logan Boulevard	Pine Ridge Road	Green Boulevard	0.76	2.60	4	10.40
54.0	Livingston Road	Pine Ridge Road	Golden Gate Parkway	0.42	2.60	6	15.60
55.0	Livingston Road	Golden Gate Parkway	Radio Road	0.49	1.40	6	8.40
67.1	Pine Ridge Rd	Airport Road	Livingston Road	0.87	1.00	6	6.00
67.2	Pine Ridge Rd	Livingston Road	I-75	0.83	1.00	6	6.00
68.0	Pine Ridge Rd	I-75	Logan Boulevard	0.72	1.10	6	6.60
70.0	Radio Rd	Livingston Road	Santa Barbara Boulevard	0.66	1.90	4	7.60
71.0	Radio Rd	Santa Barbara Boulevard	Davis Boulevard	0.49	1.50	4	6.00
76.0	Santa Barbara Boulevard	Green Boulevard	Golden Gate Parkway	0.80	1.70	4	6.80
77.0	Santa Barbara Boulevard	Golden Gate Parkway	Radio Road	0.55	1.40	6	8.40
78.0	Santa Barbara Boulevard	Radio Road	Davis Boulevard	0.39	1.10	6	6.60
125.0	Pine Ridge Rd	Logan Boulevard	Collier Boulevard	0.62	1.90	4	7.60
31*	Collier Boulevard	Pine Ridge Road	Green Boulevard	0.98	0.87	4	3.48

Total Lane Miles: 145.48

Lane Miles <= 1.0 V/C: 137.56

Percent Lane Miles Meeting LOS Standard: 94.56%

* TCMA boundary is different from the concurrency segments shown in the AUIR Attachment "F"

TCMA Report - 2009 AUIR

Collier County Transportation Concurrency Management System

AUIR ID	Name	From	To	PkHr-PkDir V/C Ratio	Length	# Lanes	Lane Miles
Northwest TCMA							
1.0	Airport Road	Immokalee Road	Vanderbilt Beach Road	0.65	2.00	4	8.00
2.1	Airport Road	Vanderbilt Beach Road	Orange Blossom Dr.	0.56	0.81	6	4.86
2.2	Airport Road	Orange Blossom Dr.	Pine Ridge Road	0.58	1.40	6	8.40
20.1	Golden Gate Parkway	Airport Road	Livingston Road	0.51	1.00	6	6.00
20.2	Golden Gate Parkway	Livingston Road	I-75	0.61	1.10	6	6.60
23.0	Goodlette-Frank Road	Immokalee Road	Vanderbilt Beach Road	0.73	1.80	2	3.60
24.0	Goodlette-Frank Road	Vanderbilt Beach Road	Pine Ridge Road	0.57	2.40	6	14.40
39.0	111th Avenue N.	Gulfshore Drive	Vanderbilt Drive	0.37	0.70	2	1.40
40.0	111th Avenue N.	Vanderbilt Drive	US 41	0.47	0.90	2	1.80
41.1	Immokalee Road	US 41	Goodlette-Frank Road	0.60	0.75	6	4.50
41.2	Immokalee Road	Goodlette-Frank Road	Airport Road	0.73	1.25	6	7.50
42.1	Immokalee Road	Airport Rd	Livingston Road	0.92	1.00	6	6.00
42.2*	Immokalee Road	Livingston Road	I-75	1.30	0.60	6	3.60
51.0	Livingston Road	Imperial Street	Immokalee Road	0.35	3.00	6	18.00
52.0	Livingston Road	Immokalee Road	Vanderbilt Beach Road	0.41	2.10	6	12.60
53.0	Livingston Road	Vanderbilt Beach Road	Pine Ridge Road	0.41	2.20	6	13.20
63.0	Seagate Drive	Crayton Road	US 41	0.55	0.50	4	2.00
64.0	Pine Ridge Road	US 41	Goodlette-Frank Road	0.84	0.50	6	3.00
65.0	Pine Ridge Road	Goodlette-Frank Road	Shirley Street	0.89	0.70	6	4.20
66.0	Pine Ridge Road	Shirley Street	Airport Road	0.79	0.90	6	5.40
98.0	Tamiami Trail North	Lee County Line	Wiggins Pass Road	0.73	1.50	6	9.00
99.0	Tamiami Trail North	Wiggins Pass Road	Immokalee Road	0.93	1.50	6	9.00
100.0	Tamiami Trail North	Immokalee Road	Vanderbilt Beach Road	0.87	1.50	6	9.00
101.0	Tamiami Trail North	Vanderbilt Beach Road	Gulf Park Drive	0.70	1.30	6	7.80
102.0	Tamiami Trail North	Gulf Park Drive	Pine Ridge Road	0.72	1.50	6	9.00
109.0	Vanderbilt Beach Road	Gulfshore Drive	US 41	0.76	1.80	2	3.60
110.1	Vanderbilt Beach Road	US 41	Goodlette-Frank Road	0.93	1.00	4	4.00
110.2	Vanderbilt Beach Road	Goodlette-Frank Road	Airport Road	1.05	1.10	4	4.40
111.1	Vanderbilt Beach Road	Airport Road	Livingston Road	0.46	1.00	6	6.00

TCMA Report - 2009 AUIR

Collier County Transportation Concurrency Management System

111.2	Vanderbilt Beach Road	Livingston Road	Logan Boulevard	0.48	2.00	6	12.00
114.0	Vanderbilt Drive	Bonita Beach Rd	Wiggins Pass Road	0.55	2.70	2	5.40
115.0	Vanderbilt Drive	Wiggins Pass Road	111th Avenue	0.43	1.40	2	2.80
117.0	Wiggins Pass Road	Vanderbilt Drive	US 41	0.49	1.00	2	2.00

Total Lane Miles: 219.06

Lane Miles <= 1.0 V/C: 211.06

Percent Lane Miles Meeting LOS Standard: 96.35%

* V/C in this table is based on the currently policy constrained 4-lane service volume

TCMA Report - 2008 AUIR**Collier County Transportation Concurrency Management System**

AUIR ID	Name	From	To	PkHr-PkDir V/C Ratio	Length	# Lanes	Lane Miles
East Central TCMA							
14.0	Davis Boulevard	Lakewood Boulevard	County Barn Road	0.77	1.90	4	7.60
15.0	Davis Boulevard	County Barn Rd	Santa Barbara Boulevard	0.77	0.70	4	2.80
16.1	Davis Boulevard	Santa Barbara Boulevard	Radio Road	1.06	1.75	2	3.50
16.2	Davis Boulevard	Radio Road	Collier Boulevard	1.05	0.65	2	1.30
21.0	Golden Gate Parkway	I-75	Santa Barbara Boulevard	0.47	1.10	6	6.60
22.0	Golden Gate Parkway	Santa Barbara Boulevard	Collier Boulevard	0.94	2.10	4	8.40
27.0	Green Boulevard	Santa Barbara Boulevard	Collier Boulevard	0.80	2.00	2	4.00
31*	Collier Boulevard	Pine Ridge Road	Green Boulevard	0.78	0.87	4	3.48
32.1	Collier Boulevard	Green Boulevard	Golden Gate Parkway	0.98	1.04	4	4.16
32.2	Collier Boulevard	Golden Gate Parkway	I-75	0.97	1.27	4	5.08
33.0	Collier Boulevard	I-75	Davis Boulevard	1.05	0.78	4	3.12
49.0	Logan Boulevard	Pine Ridge Road	Green Boulevard	0.76	2.60	4	10.40
54.0	Livingston Road	Pine Ridge Road	Golden Gate Parkway	0.51	2.60	6	15.60
55.0	Livingston Road	Golden Gate Parkway	Radio Road	0.51	1.40	6	8.40
67.1	Pine Ridge Rd	Airport Road	Livingston Road	0.96	1.00	6	6.00
67.2	Pine Ridge Rd	Livingston Road	I-75	1.10	1.00	6	6.00
68.0	Pine Ridge Rd	I-75	Logan Boulevard	0.76	1.10	6	6.60
70.0	Radio Rd	Livingston Road	Santa Barbara Boulevard	0.66	1.90	4	7.60
71.0	Radio Rd	Santa Barbara Boulevard	Davis Boulevard	0.52	1.50	4	6.00
76.0	Santa Barbara Boulevard	Green Boulevard	Golden Gate Parkway	0.80	1.70	4	6.80
77.0	Santa Barbara Boulevard	Golden Gate Parkway	Radio Road	0.56	1.40	6	8.40
78.0	Santa Barbara Boulevard	Radio Road	Davis Boulevard	0.41	1.10	6	6.60
125.0	Pine Ridge Rd	Logan Boulevard	Collier Boulevard	0.64	1.90	4	7.60

Total Lane Miles: 146.04

Lane Miles <= 1.0 V/C: 132.12

Percent Lane Miles Meeting LOS Standard: 90.47%

* TCMA boundary is different from the concurrency segments shown in the AUIR Attachment "F"

TCMA Report - 2008 AUIR

Collier County Transportation Concurrency Management System

AUIR ID	Name	From	To	PkHr-PkDir V/C Ratio	Length	# Lanes	Lane Miles
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Northwest TCMA

1.0	Airport Road	Immokalee Road	Vanderbilt Beach Road	0.66	2.00	4	8.00
2.1	Airport Road	Vanderbilt Beach Road	Orange Blossom Dr.	0.53	0.81	6	4.86
2.2	Airport Road	Orange Blossom Dr.	Pine Ridge Road	0.51	1.40	6	8.40
20.1	Golden Gate Parkway	Airport Road	Livingston Road	0.34	1.00	6	6.00
20.2	Golden Gate Parkway	Livingston Road	I-75	0.34	1.10	6	6.60
23.0	Goodlette-Frank Road	Immokalee Road	Vanderbilt Beach Road	0.81	1.80	2	3.60
24.0	Goodlette-Frank Road	Vanderbilt Beach Road	Pine Ridge Road	0.62	2.40	6	14.40
39.0	111th Avenue N.	Gulfshore Drive	Vanderbilt Drive	0.31	0.70	2	1.40
40.0	111th Avenue N.	Vanderbilt Drive	US 41	0.44	0.90	2	1.80
41.1	Immokalee Road	US 41	Goodlette-Frank Road	0.81	0.75	6	4.50
41.2	Immokalee Road	Goodlette-Frank Road	Airport Road	0.84	1.25	6	7.50
42.1	Immokalee Road	Airport Rd	Livingston Road	0.93	1.00	6	6.00
42.2	Immokalee Road *	Livingston Road	I-75	0.89	0.60	6	3.60
51.0	Livingston Road	Imperial Street	Immokalee Road	0.38	3.00	6	18.00
52.0	Livingston Road	Immokalee Road	Vanderbilt Beach Road	0.41	2.10	6	12.60
53.0	Livingston Road	Vanderbilt Beach Road	Pine Ridge Road	0.54	2.20	6	13.20
63.0	Seagate Drive	Crayton Road	US 41	0.48	0.50	4	2.00
64.0	Pine Ridge Road	US 41	Goodlette-Frank Road	0.79	0.50	6	3.00
65.0	Pine Ridge Road	Goodlette-Frank Road	Shirley Street	0.88	0.70	6	4.20
66.0	Pine Ridge Road	Shirley Street	Airport Road	0.79	0.90	6	5.40
98.0	Tamiami Trail North	Lee County Line	Wiggins Pass Road	0.82	1.50	6	9.00
99.0	Tamiami Trail North	Wiggins Pass Road	Immokalee Road	0.97	1.50	6	9.00
100.0	Tamiami Trail North	Immokalee Road	Vanderbilt Beach Road	0.94	1.50	6	9.00
101.0	Tamiami Trail North	Vanderbilt Beach Road	Gulf Park Drive	0.78	1.30	6	7.80
102.0	Tamiami Trail North	Gulf Park Drive	Pine Ridge Road	0.69	1.50	6	9.00
109.0	Vanderbilt Beach Road	Gulfshore Drive	US 41	0.85	1.80	2	3.60
110.1	Vanderbilt Beach Road	US 41	Goodlette-Frank Road	0.93	1.00	4	4.00
110.2	Vanderbilt Beach Road	Goodlette-Frank Road	Airport Road	1.15	1.10	4	4.40
111.1	Vanderbilt Beach Road	Airport Road	Livingston Road	0.50	1.00	6	6.00

TCMA Report - 2008 AUIR

Collier County Transportation Concurrency Management System

111.2	Vanderbilt Beach Road	Livingston Road	Logan Boulevard	0.50	2.00	6	12.00
114.0	Vanderbilt Drive	Bonita Beach Rd	Wiggins Pass Road	0.56	2.70	2	5.40
115.0	Vanderbilt Drive	Wiggins Pass Road	111th Avenue	0.42	1.40	2	2.80
117.0	Wiggins Pass Road	Vanderbilt Drive	US 41	0.49	1.00	2	2.00

Total Lane Miles: 219.06

Lane Miles <= 1.0 V/C: 217.91

Percent Lane Miles Meeting LOS Standard: 99.48%

* V/C in this table is based on the completed 6-lane service volume. This segment is currently policy constrained to a 4-lane service volume

TCMA Report - 2007 AUIR

Collier County Transportation Concurrency Management System

AUIR ID	Name	From	To	PkHr-PkDir V/C Ratio	Length	# Lanes	Lane Miles
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Northwest TCMA

1.0	Airport Road	Immokalee Road	Vanderbilt Beach Road	0.67	2.00	4	8.00
2.0	Airport Road	Vanderbilt Beach Road	Pine Ridge Road	0.54	2.21	6	13.26
20.0	Golden Gate Parkway	Airport Road	I-75	0.35	2.10	6	12.60
23.0	Goodlette-Frank Road	Immokalee Road	Vanderbilt Beach Road	0.81	1.80	2	3.60
24.0	Goodlette-Frank Road	Vanderbilt Beach Road	Pine Ridge Road	0.62	2.40	6	14.40
39.0	111th Avenue N.	Gulfshore Drive	Vanderbilt Drive	0.32	0.70	2	1.40
40.0	111th Avenue N.	Vanderbilt Drive	US 41	0.44	0.90	2	1.80
41.0	Immokalee Road	US 41	Airport Road	0.81	2.00	6	12.00
42.0	Immokalee Road	Airport Rd	I-75	0.96	1.60	6	9.60
51.0	Livingston Road	Imperial Street	Immokalee Road	0.38	3.00	6	18.00
52.0	Livingston Road	Immokalee Road	Vanderbilt Beach Road	0.41	2.10	6	12.60
53.0	Livingston Road	Vanderbilt Beach Road	Pine Ridge Road	0.55	2.20	6	13.20
63.0	Seagate Drive	Crayton Road	US 41	0.48	0.50	4	2.00
64.0	Pine Ridge Road	US 41	Goodlette-Frank Road	0.80	0.50	6	3.00
65.0	Pine Ridge Road	Goodlette-Frank Road	Shirley Street	0.89	0.70	6	4.20
66.0	Pine Ridge Road	Shirley Street	Airport Road	0.79	0.90	6	5.40
98.0	Tamiami Trail North	Lee County Line	Wiggins Pass Road	0.77	1.50	6	9.00
99.0	Tamiami Trail North	Wiggins Pass Road	Immokalee Road	0.93	1.50	6	9.00
100.0	Tamiami Trail North	Immokalee Road	Vanderbilt Beach Road	0.94	1.50	6	9.00
101.0	Tamiami Trail North	Vanderbilt Beach Road	Gulf Park Drive	0.78	1.30	6	7.80
102.0	Tamiami Trail North	Gulf Park Drive	Pine Ridge Road	0.69	1.50	6	9.00
109.0	Vanderbilt Beach Road	Gulfshore Drive	US 41	0.86	1.80	2	3.60
110.0	Vanderbilt Beach Road	US 41	Airport Road	0.98	2.10	4	8.40
111.0	Vanderbilt Beach Road	Airport Road	Logan Boulevard	0.50	3.00	6	18.00
114.0	Vanderbilt Drive	Bonita Beach Rd	Wiggins Pass Road	0.49	2.70	2	5.40
115.0	Vanderbilt Drive	Wiggins Pass Road	111th Avenue	0.41	1.40	2	2.80
117.0	Wiggins Pass Road	Vanderbilt Drive	US 41	0.45	1.00	2	2.00

Total Lane Miles: 219.06

Lane Miles <= 1.0 V/C: 219.06

Percent Lane Miles Meeting LOS Standard: 100.00%

TCMA Report - 2007 AUIR

Collier County Transportation Concurrency Management System

AUIR ID	Name	From	To	PkHr-PkDir V/C Ratio	Length	# Lanes	Lane Miles
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East Central TCMA

14.0	Davis Boulevard	Lakewood Boulevard	County Barn Road	0.78	1.90	4	7.60
15.0	Davis Boulevard	County Barn Rd	Santa Barbara Boulevard	0.78	0.70	4	2.80
16.0	Davis Boulevard	Santa Barbara Boulevard	Collier Boulevard	1.06	2.40	2	4.80
21.0	Golden Gate Parkway	I-75	Santa Barbara Boulevard	0.48	1.10	6	6.60
22.0	Golden Gate Parkway	Santa Barbara Boulevard	Collier Boulevard	0.95	2.10	4	8.40
27.0	Green Boulevard	Santa Barbara Boulevard	Collier Boulevard	0.81	2.00	2	4.00
32.1	Collier Boulevard	Pine Ridge Road	Golden Gate Parkway	0.99	1.91	4	7.64
32.2	Collier Boulevard	Golden Gate Parkway	I-75	0.87	1.27	4	5.08
33.0	Collier Boulevard	I-75	Davis Boulevard	1.05	0.78	4	3.12
49.0	Logan Boulevard	Pine Ridge Road	Green Boulevard	0.77	2.60	4	10.40
54.0	Livingston Road	Pine Ridge Road	Golden Gate Parkway	0.51	2.60	6	15.60
55.0	Livingston Road	Golden Gate Parkway	Radio Road	0.51	1.40	6	8.40
67.0	Pine Ridge Rd	Airport Road	I-75	0.95	2.00	6	12.00
68.0	Pine Ridge Rd	I-75	Logan Boulevard	0.74	1.10	6	6.60
70.0	Radio Rd	Livingston Road	Santa Barbara Boulevard	0.66	1.90	4	7.60
71.0	Radio Rd	Santa Barbara Boulevard	Davis Boulevard	0.53	1.50	4	6.00
76.0	Santa Barbara Boulevard	Green Boulevard	Golden Gate Parkway	0.82	1.70	4	6.80
77.0	Santa Barbara Boulevard	Golden Gate Parkway	Radio Road	0.58	1.40	6	8.40
78.0	Santa Barbara Boulevard	Radio Road	Davis Boulevard	0.43	1.10	6	6.60
125.0	Pine Ridge Rd	Logan Boulevard	Collier Boulevard	0.62	1.90	4	7.60

Total Lane Miles: 146.04

Lane Miles <= 1.0 V/C: 138.12

Percent Lane Miles Meeting LOS Standard: 94.58%

TCMA Report - 2006 AUIR

Collier County Transportation Concurrency Management System

AUIR ID	Name	From	To	PkHr-PkDir V/C Ratio	Length	# Lanes	Lane Miles
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East Central TCMA

14	Davis Boulevard	Lakewood Boulevard	County Barn Road	0.89	1.23	4	4.92
15	Davis Boulevard	County Barn Road	Santa Barbara Boulevard	0.92	0.68	4	2.72
16	Davis Boulevard	Santa Barbara Boulevard	Collier Boulevard	1.06	2.39	2	4.78
21	Golden Gate Parkway	I-75	Santa Barbara Boulevard	0.60	1.10	6	6.60
22	Golden Gate Parkway	Santa Barbara Boulevard	Collier Boulevard	0.98	2.14	4	8.56
27	Green Boulevard	Santa Barbara Boulevard	Collier Boulevard	0.69	2.00	2	4.00
32	Collier Boulevard	Pine Ridge Road	Golden Gate Parkway	1.02	1.89	4	7.56
32A	Collier Boulevard	Golden Gate Parkway	N. of I-75	0.94	1.23	4	4.92
33	Collier Boulevard	N. of I-75	Davis Boulevard	1.30	0.78	4	3.12
49	Logan Boulevard	Pine Ridge Road	Green Boulevard	0.69	0.87	4	3.48
54	Livingston Road	Pine Ridge Road	Golden Gate Parkway	0.50	2.55	6	15.30
55	Livingston Road	Golden Gate Parkway	Radio Road	0.37	1.43	6	8.58
67	Pine Ridge Road	Airport Road	I-75	0.98	1.12	6	6.72
68	Pine Ridge Road	I-75	Logan Boulevard	0.65	1.10	6	6.60
70	Radio Road	Livingston Road	Santa Barbara Boulevard	0.88	1.99	4	7.96
71	Radio Road	Santa Barbara Boulevard	Davis Boulevard	0.72	1.38	4	5.52
76	Santa Barbara Boulevard	Green Boulevard	Golden Gate Parkway	0.79	1.80	4	7.20
77	Santa Barbara Boulevard	Golden Gate Parkway	Radio Road	0.61	1.37	6	8.22
78	Santa Barbara Boulevard	Radio Road	Davis Boulevard	0.75	1.10	4	4.40
126	Pine Ridge Road	Logan Boulevard	Collier Boulevard	0.48	1.89	4	7.56

Total Lane Miles: 128.72
Lane Miles<=1.0 V/C: 113.26
Percent Lane Miles Meeting LOS Standard: 87.99%
 Red: Deficient
 Blue: Projected to become deficient in 2007