

LEHIGH ACRES COMPREHENSIVE PLANNING STUDY

Submitted to
Lee County
Community Development Department

Prepared by
Wallace Roberts & Todd, LLC

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TABLE OF CONTENTS

Section I – Plan Framework.....	7
I.1 Introduction.....	9
I.2 Study Area.....	10
I.3 Project Purpose.....	11
I.4 Planning Process.....	12
I.5 Public Involvement.....	13
Section II – Background.....	17
II.1 Historical Overview.....	19
II.2 Legal Parameters.....	20
II.3 Prior Plans and Studies.....	26
• The Lee Plan.....	27
• Lehigh Acres Community Redevelopment Area Plan.....	31
• Lehigh Acres Commercial Land Use Study.....	31
• Population Model to Forecast Population Growth of Lehigh Acres over Time to Build-Out.....	31
• SFWMD Caloosahatchee Watershed Initiative/Lehigh Headwaters Initiative/ South Lehigh Acres Historic Flow Restoration/ECWCD Comprehensive Wa- ter Resources Plan.....	32
• 2030 Long Range Transportation Plan.....	33
• Lee County Master Mitigation Plan.....	34
• Prospects for Southeast Lee County: Planning for DR/GR Area.....	34
Section III – Community Assessment.....	37
III.1 Demographics.....	39
III.2 Land Use	40
III.3 Regulatory Framework	45
• The Lee Plan and the Future Land Use Map	45
• Zoning and Land Development Regulations Special Overlay Districts.....	48
III.4 Community Structure/Urban Design.....	54
III.5 Natural Factors.....	60
• Water Resources.....	60
III.6 Transportation.....	66
• Levels of Service (LOS).....	67
• Road Improvement Projects.....	78
• Corridor Studies.....	78
• Access Management for Commercial Uses.....	78
• Alternative Transportation Modes.....	79
III.7 Infrastructure.....	81
• Onsite Treatment and Disposal Systems.....	81
• Private Water Wells.....	85

• Centralized Water and Sewer.....	85
• Stormwater Management.....	91
III.8 Community Services and Facilities.....	94
• Emergency Services – Fire and Police.....	94
• Parks and Recreation.....	95
• Other Community Facilities.....	106
III.9 Trends Evaluation.....	107
• Capacity Analysis.....	108
• Population Projection.....	109
• Needs/Demand Analysis	109
Section IV – The Vision	115
Section V – Concept Plan.....	121
V.1 Guiding Principles.....	123
V.2 Strategic Directions.....	124
V.3 Development Staging (Tier System).....	125
V.4 Areawide Development/Land Use Concept.....	129
V.5 Community Structure/Urban Design Framework.....	133
V.6 Transportation Concept.....	152
V.7 Community Facilities.....	153
Section VI - Implementation Framework.....	159
VI.1 Action Strategy.....	161
• Short Term Actions.....	161
• Medium Term Actions.....	164
• Longer Term Actions.....	165
VI.2 Regulatory Modifications.....	166
• Lee Plan Amendments.....	166
• Zoning Changes.....	167
VI.3 Tool Kit for Medium and Long-Term Actions.....	174
• Transfer of Development Rights (TDR).....	175
• Purchase of Development Rights (PDR).....	175
• Land Acquisition through Delinquent Tax Deed Sales and Escheatment.....	175
• Innovative Approaches to Conventional Amortization of Nonconforming Duplex.....	175
• Special Districts – MSTU and MSBU.....	176
• Community Redevelopment Area (CRA).....	176

LIST OF FIGURES

Section I – Plan Framework.....	7
Figure 1: Location of Lee County in Florida	9
Figure 2: Location of Lehigh Acres in Lee County.....	9
Figure 3: Lehigh Acres Study Area.....	10
Figure 4: Scale Comparison.....	10
Figure 5: Context.....	11
Figure 6: Planning Process.....	12
Section II – Background.....	17
Figure 7: Lands subject to 1971 Stipulation & Settlement Agreements and Amendments....	21
Figure 8: Lands subjects to 1988 Stipulation & Settlement Agreements.....	23
Figure 9: Lands subject to 1992 Stipulation & Settlement Aggrements.....	24
Figure 10: Lands subject to 1992 Aggrements.....	25
Figure 11: Summary of Agreements	26
Figure 12: The Comprehensive Water Resources Plan-Potential Land Acquisition Sites.....	32
Figure 13: 2030 Long Range Transportation Plan	33
Section III – Community Assessment.....	50
Figure 14: Existing Land Use.....	42
Figure 15: Future Land Use	46
Figure 16: Zoning.....	50
Figure 17: Block Pattern.....	56
Figure 18: Community Structure.....	58
Figure 19: Wetlands.....	62
Figure 20: Water Resources / Management.....	64
Figure 21: Transportation Network.....	68
Figure 22: Connectivity and Safety Conditions.....	70
Figure 23: Road Conditions Index (2006).....	72
Figure 24: Roads Levels of Service (2006).....	74
Figure 25: Planned Road Improvement Projects.....	76
Figure 26: On-site treatment and disposal systems (OSTDS).....	82
Figure 27: Water Wells.....	86
Figure 28: Water & Sewer.....	88
Figure 29: Drainage Network.....	92
Figure 30: Fire Districts & Disticts.....	96
Figure 31: Fire Hazard Index.....	98
Figure 32: Police Protection.....	100
Figure 33: Parks & Recreational Areas.....	102
Figure 34: Community Facilities.....	104
Figure 35: Tiered Growth Concept.....	110

Section IV – The Vision	115
Section V – Concept Plan.....	121
Figure.36: Tiered Growth Concept.....	126
Figure.37: Proposed Future Land Use	130
Figure.38: Community Structure.....	134
Figure.39: Neighborhoods and Neighborhood Clusters.....	137
Figure 40: Proposed Land Use of Lee Boulevard - Gunnerly Road Community Mixed-Use Center.....	140
Figure 41: Lee Boulevard - Gunnerly Road - Community Mixed Use Center Concept (Node)..	142
Figure.42: Proposed Land Use of Gunnerly Road-SR 82 Community Mixed-Use Center.....	144
Figure 43: Gunnerly Road-SR 82 Community Mixed-Use Center *Node.....	146
Figure 44: Bird's Eye View of the SR 82 Community Mixed-Use Center at Water's Edge	148
Figure 45: Street View from the SR 82 Community Mixed-Use Center	149
Figure 46: Neighborhood Mixed-Use Center.....	150
Figure.47: Local Activity Center.....	151
Figure.48: Proposed Transportation Network.....	154
Figure.49: Proposed Community Facilities.....	156
Section VI - Implementation Framework.....	159
Figure.50: Urban Design Framework.....	169
Figure.51: Standards for townhouse development along SR 82 & Lee Boulevard.....	171
Figure.52: New prototype for duplex development.....	173
Figure.53: Duplex development standards.....	174

LIST OF TABLES

Table 1: Vacant Land Allocation (by intended Use).....	40
Table 2: Reported land assemblies (by ownership).....	41
Table 3: Residential Land Status.....	44
Table 4: Lehigh Acres Platted "Neighborhoods".....	55
Table 5: Planned Capital Improvements for Lehigh Acres Road.....	67
Table 6: Current Population Estimate.....	108
Table 7: Additional Population Capacity.....	108
Table 8: Senario A: No additional development in Area 3.....	109
Table 9: Senario B: Full built-out in all areas.....	109
Table 10: Estimated 2030 Demand for Commercial and Industrial Land.....	112
Table 11: Summary of 2030 projected recreational land demand in Lehigh Acres.....	113



SECTION I

PLAN FRAMEWORK

1.1 Introduction

The 1950s and 1960s were the boon of the “platted lands” era in the United States. Large tracts of land were purchased cheaply in remote locations, often by investors with no prior development experience or an understanding of sound planning practices, then platted into small lots and sold (often sight unseen) on installment plans to buyers all over the world. Purchasers often defaulted on their payments and lost their investment, but the developers resold the lots easily. Because the developers’ primary motivation was to maximize return on their expenditure by carving out and selling as many lots as possible, little or no land was set aside within these massive subdivisions for commercial areas, employment centers, or public facilities.

At the peak of that era, hundreds of companies in Florida, California, Arizona, and other states, were involved in this activity. Today, the original development companies are mostly gone, but dozens of large-scale, antiquated subdivisions remain in the United States. Most live on as vast bedroom communities with deficient roadway networks, and inadequate provision of parks, schools, and community-serving retail.

Florida has some 150 such subdivisions (Figure 1); Lehigh Acres, located in the northeast quadrant of Lee County (Figure 2), qualifies as one of the largest in the country. Remote and isolated from the County’s urbanized area, for decades this 96-square mile subdivision developed at a slow pace, deferring the need for immediate solutions to the problems foretold by fundamental flaws in layout, design, and character. However, its very remoteness, together with the lack of infrastructure investment, kept the land values low enough to make the area comparatively affordable and attractive to the County’s working families. As a result, in the late 1990s and early 2000s, residential development accelerated (while remaining scattered over the large land area), with the volume of traffic in and out of Lehigh Acres mushrooming and crime and emergency response times becoming a problem due to the isolation of many of the homes and the discontinuity in the road network. As growth is expected to continue, the absence of the facilities and infrastructure to support that growth means that Lehigh Acres will reach a crisis point sooner or later.

To respond to this challenge, Lee County, working with Wallace Roberts & Todd, LLC (WRT) and a team of subconsultants, launched a process to prepare a new community plan for the long-term development of Lehigh Acres. The plan is an effort to identify actions and tools that will allow the County to alleviate the present problems experienced by Lehigh Acres, and, over time, to make the community more sustainable and more self-sustaining. This report documents the findings of the planning process and the recommendations of the WRT Team.



Figure 1: Location of Lee County in Florida



Figure 2: Location of Lehigh Acres in Lee County

I.2 Study Area

The study area boundaries for the Lehigh Acres Comprehensive Planning Study coincide with those established in the Lee County Comprehensive Plan (the Lee Plan) as the boundaries of the Lehigh Acres Planning Community. The Lehigh Acres Planning Community comprises the original Lehigh Acres development, located south of Township 43 South, generally north of SR 82, and east of Buckingham Road/the Buckingham Rural Community Preserve to the eastern Lee County line. Retaining the present boundaries for planning purposes will help facilitate integration of this study into the framework of the Lee Plan. (Figure 3)



Figure 3: Lehigh Acres Study Area

Source: WRT based on Lee County GIS

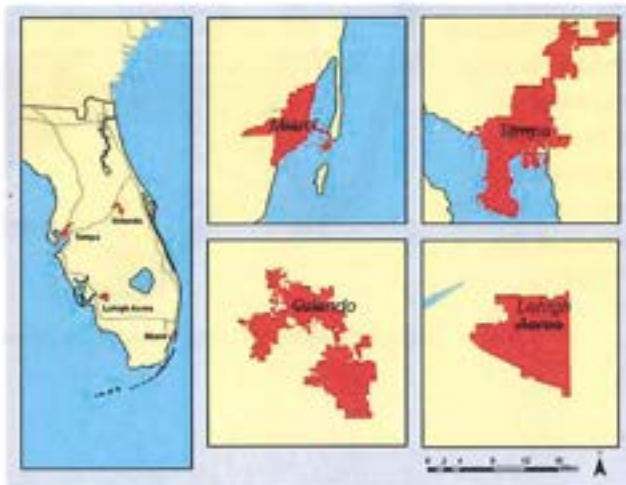


Figure 4: Scale comparison

Source: ESRI GIS database

Lehigh Acres is the second largest community in the County by land area (second to Cape Coral). Lehigh Acres covers 61,372 acres of land (approx. 96 square miles), or about 8 percent of the total land in Lee County, but it is home to less than 75,000 people—less than 12 percent of the County's population. By comparison, the City of Miami, with over 400,000 people as of 2006, covers only 55 square miles and the City of Orlando, with some 202,000 people, has a land area of 101 square miles. (Figure 4)

Lehigh Acres abuts the County's planning communities of Alva and Fort Myers Shores to the north, and Buckingham and incorporated Fort Myers to the west. The Gateway/Airport and Southeast Lee County's critical Density Reduction/Groundwater Recharge areas are located to the south (Figure 5).

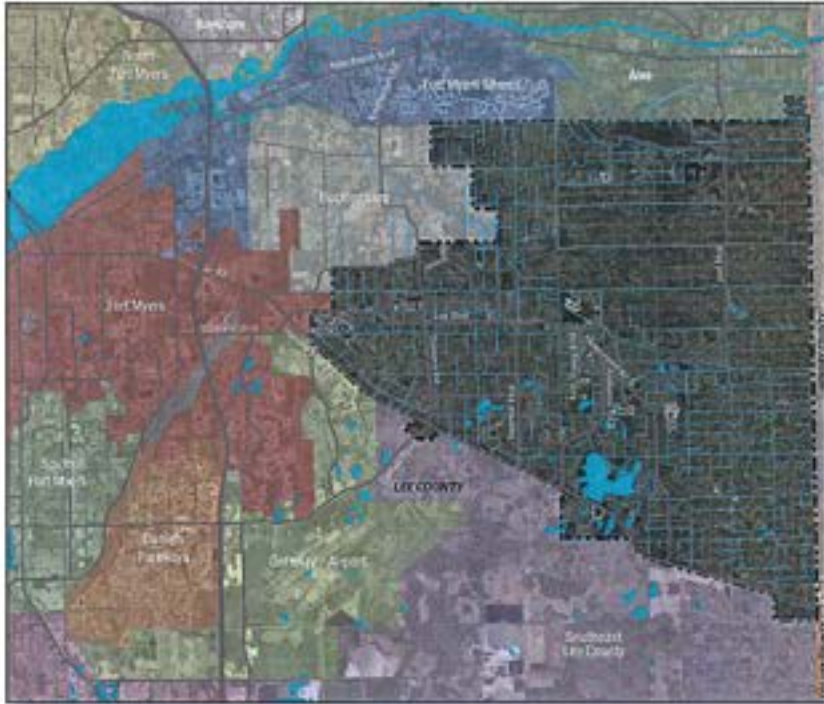


Figure 5: Context

Source: WRT based on Lee County GIS

1.3 Project Purpose

The overarching purpose of this study is to develop a proactive, comprehensive and strategic program of action to address land development, redevelopment, infrastructure and service issues so that Lehigh Acres can become a more balanced, and sustainable community.

Preparing a plan that meets the requirements for sustainability, given the challenges and limitations facing Lehigh Acres and the current fiscal climate in Florida, is not an easy task. However, four critical components, identified during the planning process are necessary to make the plan successful. These are:

1. A practical physical plan.
2. Prioritized actions and programs.
3. Necessary regulatory tools and financial resources.
4. A public and political commitment to implement the plan.

1.4 Planning Process

This document was prepared over a two-year period as part of a process that included five phases of work. (Figure 6)

The purpose of the first phase, Project Parameters, was to reach a common and practical understanding of the issues that could frame the range of possible solutions in subsequent phases of the planning process. Through the work conducted in this phase, the planning team sought to "get a grip" on the exact nature of the challenge of creating a plan for Lehigh Acres. The product of this phase was a framework of factors and considerations, parameters and opportunities, which served as the context for the development of the plan in the subsequent phases.

The second and third phases of work—Existing Conditions and Trends and Vision for the Future, respectively—were conducted along parallel tracks. In the second phase, WRT compiled and analyzed existing legal/regulatory, physical, functional, demographic, and economic conditions and trends, which served to identify and evaluate opportunities and constraints in the study area. At the same time, the consultant conducted a series of interactive forums with the residents of Lehigh Acres to solicit input on the community's values and expectations for quality of life and development and design character. This input served to prepare a Vision Statement that expresses "what we want Lehigh Acres to be like in the future." Together, the products of these two phases present a stark contrast between the likely future if no action is taken to change the current situation, and the collective future that the community aspires to attain.

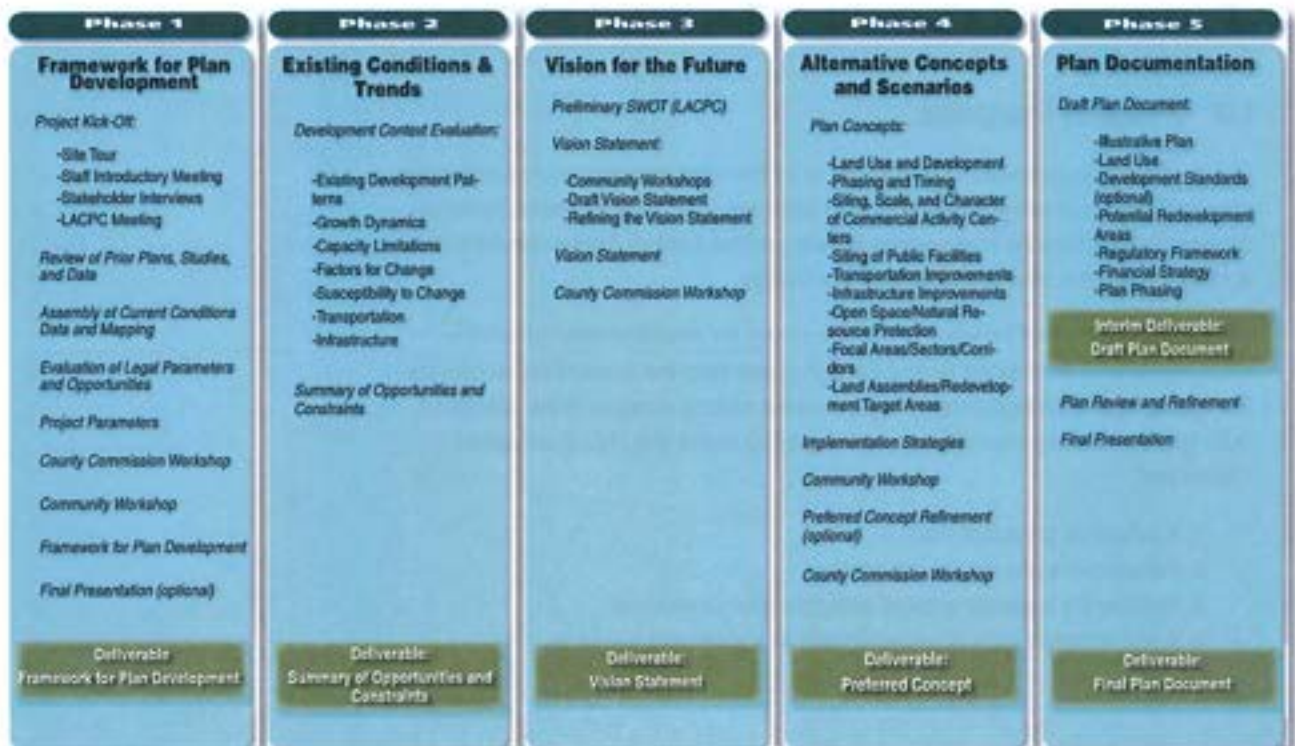


Figure 6: Planning Process

In Phase Four, Alternative Concepts and Scenarios, a series of concepts and development/redevelopment scenarios were developed and depicted graphically. These concepts and scenarios emphasized growth and development patterns at an areawide scale, but they also identified specific sectors, corridors and prospective redevelopment areas for more detailed study, which may follow adoption of the Lehigh Acres Plan. Key variables explored included: land use and development patterns, development phasing and timing, potential siting, scale and character of commercial activity centers, potential siting of public facilities, and roadway network improvements. From this exploration of variables, a "preferred" concept emerged based on degree of alignment with the Vision Statement and degree of feasibility.

Phase Five, Plan Document, compiles all the relevant facets and products of the previous four phases into this document, and represents the culmination of the process leading up to public review and, eventually, adoption and implementation of the plan recommendations.

1.5 Public Involvement

Multiple opportunities for public involvement were provided during the two years of the planning process. All meetings were extensively advertised through the local newspapers and posted on the County website. The Plan's public involvement activities were also announced at meetings of the Lehigh Acres Community Planning Corporation (LACPC)—the community-based organization who steered the process and who, working with Lee County staff, served as the interface between the Consultant and the larger Lehigh Acres community—and posted on the LACPC website. Newspaper coverage typically followed each of the activities. Interim and final products of each phase, as well as corresponding presentation materials, were made available on both the County and the LACPC websites.



Documents and presentations were made available to the community on the Lee County and the LACPC websites

In September of 2006, the project kicked off in Lehigh Acres with a series of community stakeholder meetings, including a total of twenty-two (22) individuals representing nine (9) different governmental entities, community organizations, and private enterprises. The interviews were conducted over a two-day period, and their purpose was to give the Consultant team an overview of local issues, conditions, opinions and perceptions, as well as to familiarize them with those groups and individuals who may have an

influence in the community. Also as part of the kick-off, the Consultant team made an introductory presentation to and conducted an interactive pre-visioning exercise with the LACPC. The pre-visioning exercise helped to gauge the LACPC's expectations for the planning process, and their perception of the impediments that would be encountered in achieving success. This meeting was well attended by Lehigh Acres residents (approximately 50 attendees), and the Consultants, LACPC, and County staff all received and answered many questions.

On March 21st, March 22, and April 28, 2007, the Consultant team conducted four (4) community visioning sessions, which were attended by approximately 136 persons. At each one of the meetings, the participants were assigned to small groups after an initial plenary presentation. Members of the LACPC board and County staff assisted by serving as small group facilitators and scribes. The input recorded at each of the seventeen (17) small group discussions was tabulated and summarized by the Consultant in order to identify themes and consensus ideas. These, in turn, were used as the basis for creating a draft Vision Statement for the long-term future of Lehigh Acres.



Facilitated discussions, interactive presentations, and other techniques were used to engage the community

The draft Vision Statement was presented to Lehigh Acres residents at a public forum on June 25th, 2007. Approximately thirty-five (35) persons attended this session. Modifications were subsequently made to the draft Vision based on comments and questions recorded at the meeting.

On August 21, 2007, the Consultants made an informational presentation to the Lee County Board of County Commissioners Management and Planning Committee. The findings of the Framework for Plan Development, a summary of the Existing Conditions and Trends Analysis, and the Vision Statement were presented, together with a series of eight (8) recommended strategic directions to address the key issues. While no formal action is taken at the Management & Planning Committee meetings, the Commissioners expressed support for the strategic directions and urged the Consultant move forward with the preparation of the plan. With this feedback, together with comments subsequently received from the Staff, Lehigh Acres residents, and the LACPC, the Consultant proceeded with the preparation of community-wide conceptual alternatives as well as more detailed prototypes that were "tested" for viability on a site-specific basis.

During this phase of the process, the Consultant also made an informal presentation to the Lehigh Acres Chamber of Commerce on the status of the plan. Approximately fifty (50) individuals, representing Chamber member businesses and organizations, were in attendance at this lunch meeting, which took place on September 23, 2008.

On January 30, 2008, the alternative concepts were presented to the LACPC in a workshop forum. Subsequently, on February 9, 2008, an all-day community open house was held at the Faith Lutheran Church. The Consultants and LACPC members presented the concepts in a morning and afternoon sessions, and remained on premises with large boards of the concepts to talk to and answer questions from residents throughout the day. In total, approximately 40 persons came to the open house. From the feedback received at this open house, plus County staff comments and the Consultant's own evaluation, a "preferred concept" was developed.

A rough draft of the plan document was submitted to County staff in August of 2008 for preliminary review. The draft plan concepts and recommendations were presented to the Lehigh Acres community on October 30, 2008, to positive reaction. Approximately 40 residents attended this public presentation.

A summary presentation of the draft plan was also made to the Board of County Commissioners Management and Planning Committee on December 1, 2008. A final draft of the plan document, incorporating comments from the Board, the Staff, and Lehigh Acres residents, was submitted to the Community Development Department on December 15, 2008. One additional presentation to the Lehigh Acres community and the LACPC is scheduled for January 2009.



Public presentations and other events were advertised and reported on by the local media



SECTION II
BACKGROUND

II.1 Historical Overview

Lehigh Acres was an 18,000-acre cattle ranch that in the mid 1950's was purchased as a tax shelter by Chicago businessman Lee Ratner. By 1954, Ratner, had joined Gerald H. Gould, advertising executive from Florida, Manuel Riskin, a CPA from Chicago, and Edward Shapiro, a California real estate investor, to create the Lee County Land & Title Co. (later renamed Lehigh Acres Development Corporation). The group acquired additional land, subdivided it all into quarter-acre and half-acre lots, and began lot sales in earnest, marketing the development as a retirement community.



Lehigh Acres in the 1950s

Some land was set aside, mainly along Homestead Road and Lee Boulevard, for commercial uses. However, the set-aside was not nearly enough to serve an area of 100 square miles, where development was eventually expected to reach between 135,000 and 150,000 housing units at buildout. For many years, the slow pace at which the area developed was providential, since Lehigh Acres was too distant from other developed areas in Lee County and from existing infrastructure and services to make it fiscally feasible to provide those services. In a study on platted lands prepared in 2003, the Florida Legislative Committee on Intergovernmental Relations estimated that nearly 90 percent of the lots in Lehigh Acres remained vacant as of 1997.

Around that time, unexpectedly, development intensified. Certificates of Occupancy (CO's) for residential structures in Lehigh Acres jumped from 528 in 2000, to 1,183 in 2003. By 2005, this number had grown to 6,241. Traffic, crime, water quality, and other problems began to afflict Lehigh Acres—not unlike other rapidly growing communities, but in Lehigh Acres, these factors were exacerbated by the unique conditions and built-in deficiencies of the development pattern. Today, while the nationwide economic downturn clearly has slowed the pace of development in Lehigh Acres in the near term, the underlying problems remain, and are only likely to worsen whenever the market picks up again. Many of them are interrelated, and have significant effects on the physical and social welfare of the community.

Over the years, various proposals have been made to resolve the issues in Lehigh Acres. The Lehigh Acres Development Corporation, the original developer, was sold numerous times between 1972 and 1991, when the company finally ended its land dealings in the community. In 1992, a new developer, Minnesota Power, worked with Lee County to establish a Community Redevelopment Area in Lehigh Acres that, among other things, would allow for the acquisition of land for complementary nonresidential uses and for the improvement of deficient infrastructure and services. However, the CRA was dissolved in the year 2000, before many initiatives could be implemented.

In addition, since the mid-1990s, residents of Lehigh Acres have proposed incorporation twice as a means of exerting more control over their own future, but these efforts did not succeed at the ballot box, most recently in 2007.



Lehigh Acres CRA boundaries
Source: *Lehigh Acres Blight Study, December 1993*

Meanwhile, in 2004, a group of local leaders formed the Lehigh Acres Community Planning Corporation (LACPC). The stated mission of this group is to "support the management, planning and redevelopment of the Plat known as Lehigh Acres to a degree needed to meet the needs of the community known as Lehigh Acres, located in Lee County, Florida and to prepare a community plan for Lehigh Acres and deliver it to the designated agent of the Lee County Board of County Commissioners." The LACPC actively collaborated with the consultant team retained by the County to prepare the Comprehensive Planning Study. In April 2005, with the support of the LACPC, the Board of County Commissioners approved a 17-month moratorium on applications to rezone non-residential land for residential projects in anticipation of the planning process. The moratorium was extended once in 2007 to allow for the completion of the plan.

III. 2 Legal Parameters

No discussion of possible strategies for dealing with development or redevelopment in Lehigh Acres can proceed without consideration of all factors related to private property rights. The consultant team conducted an exhaustive search and analysis of various legal and regulatory issues and instruments that have an influence on development in Lehigh Acres. The review of the background facts indicates that there are three agreements and four related government actions that affect vested rights issues in Lehigh Acres, which should be regarded in planning the future of this community (Figures 7 through 11).

In simple terms, the examination of these various decisions and agreements suggests that, because the majority of land in Lehigh Acres was platted and vested many years ago, the ability of the County to restrict development of single family residential on these lots on the basis of density, intensity, use, or transportation concurrency, is diminished. However, this development is required to meet all other land development regulations, including those regarding on-site sewage disposal systems and water wells. In addition, the Lee Plan grants that any subdivision approval may be revisited if it were demonstrated that a new peril exists—i.e., a peril unknown at the time of approval—to the public health, safety or welfare of the residents.

Presented in chronological order, the governing agreements and Lee County actions include:

1. June 23, 1971 - Subdivision and Platting Assurance Agreement (SPAA): This is an agreement drawn between Lehigh Acres Development, Inc. and Lee County. The SPAA—which has been amended twelve times since inception—does not address vested rights per se, but does establish and recognize three categories of plats (Figure 7) and the infrastructure requirements for each, as follows:

- Plats recorded with Lee County as of the original date of the SPAA, and which are required to comply with the County's subdivision regulations adopted in March 1962.
- Plats filed in conjunction with the SPAA, and which are also required to comply with the March 1962 subdivision regulations.

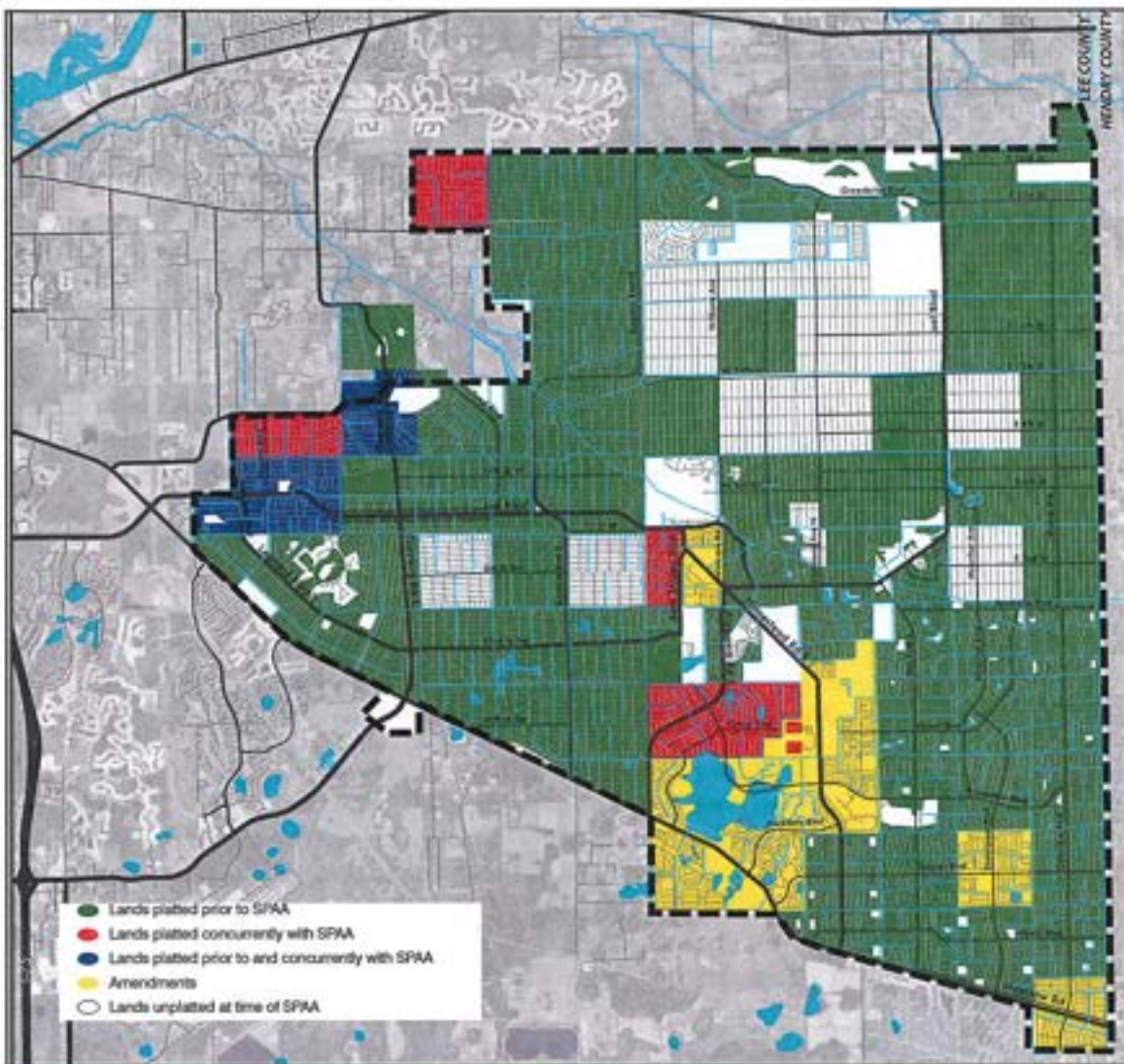


Figure 7: Lands subject to 1971 Stipulation & Settlement Agreements & Amendments

Source: WRT & Clarion
based on Lee County documents

- Lands that remained unplatted as of the date of the SPAA but which Lehigh Acres Development, Inc. intended to plat at a future date. Pursuant to the terms of the SPAA, those future plats were required to comply with subdivision regulations "in effect as of the date of the recordation in the County records of Future Plats."

2. November 16, 1984 - Lee County Plan (Lee Plan): The 1984 Lee Plan identified Lehigh Acres as an Urban Area, and assigned the future land use classifications of Urban Community and Central Urban area to lands within Lehigh Acres. (These are the same designations in effect today).

The 1984 Lee Plan included a section addressing the effect of the Plan on vested rights, which is relevant to the situation in Lehigh Acres. This section recognized that an approved platted subdivision, platted pursuant to Part I of Chapter 177, F.S., was deemed consistent with the Lee Plan if the following conditions were met: (1) construction of the subdivision began within two (2) years of approval; (2) construction activity complied with all applicable public health, safety, and welfare standards and regulations; (3) the subdivision was deemed consistent "only insofar as those items specifically approved;" and (4) there was not a substantial deviation from the approval granted.

Three limitations are spelled out in the Plan, which are also of relevance to Lehigh Acres. First, there was an express provision that vested rights were only valid for a limited period of time. Second, the provision was clear that a substantial deviation to the development approval determined to be vested would subject the development to the policies and implementing decisions and regulations of the Plan. Third, the Lee Plan recognized that even if a subdivision met all the conditions, it could be deemed inconsistent with the Plan "...upon a showing by the County of a peril to the public health, safety, or general welfare of the residents of Lee County, which peril was unknown at the time of approval."

3. June 21-October 31, 1985 - Decision on Appeal of Administrative Determination by Lehigh Acres Development Corporation:

Still uncertain about its development rights in Lehigh Acres under the 1984 Lee Plan, on June 32, 1985 Lehigh Acres Development, Inc. filed an application for an Administrative Interpretation of Vested Rights with respect to all the land generally known as Lehigh Acres. In its request, Lehigh Acres Development, Inc. alleged that Lehigh Acres had "acquired vested rights to complete development of Lehigh Acres in accordance with its Master Land Use Plan, its recorded subdivision plats, the Subdivision Platting Assurance Agreement (SPAA), and the zoning granted by Lee County."

The County's Administrative Designee determined that "equity requires the County to concede Lehigh Acres Development, Inc. had a vested right to develop all portions of Lehigh Acres for which a plat had been prepared by Lehigh Acres Development, Inc. and recorded by Lee County". The Administrative Designee found these areas to have vested rights through estoppel whether they were consistent with the Lee Plan or not. The Administrative Designee also concluded that all remaining undeveloped and unplatted lands in Lehigh Acres were not vested under the Lee Plan. The decision of the Administrative Designee was appealed. On October 31, 1985, the Lehigh Corporation filed a Petition for Writ of Certiorari and Declaratory Judgment, again alleging that all remaining undeveloped and unplatted lands in Lehigh Acres were vested under the 1984 Lee Plan.

4. December 27, 1988 – Stipulation and Settlement Agreement

(SSA): On December 27, 1988, Lee County and Lehigh Corporation resolved the lawsuit by the Lehigh Corporation by entering into a Stipulation and Settlement Agreement. The SSA addresses whether certain lands in Lehigh Acres were vested for development under the 1984 Lee Plan. These were specific lands in Lehigh Acres that had not been platted on the date of the SSA. The lands within Lehigh Acres that are not subject to the SSA are also identified. Many of these lands had already been platted, and the Lee County Administrative Designee determined that owners of these platted lands (which constitute a majority of the land in Lehigh Acres) had a vested right to develop single family homes on a lot. The SSA states its intent to provide these lands subject to the Agreement "...with urban densities and intensities of use for development independent of Lee County subsidized infrastructure."

5. 1990 - Lee Plan : In the late 1980s, Lee County prepared and adopted a new comprehensive plan to comply with Florida's 1985 Planning Act. It was ultimately found to be in compliance in 1990. The 1990 Lee Plan basi-

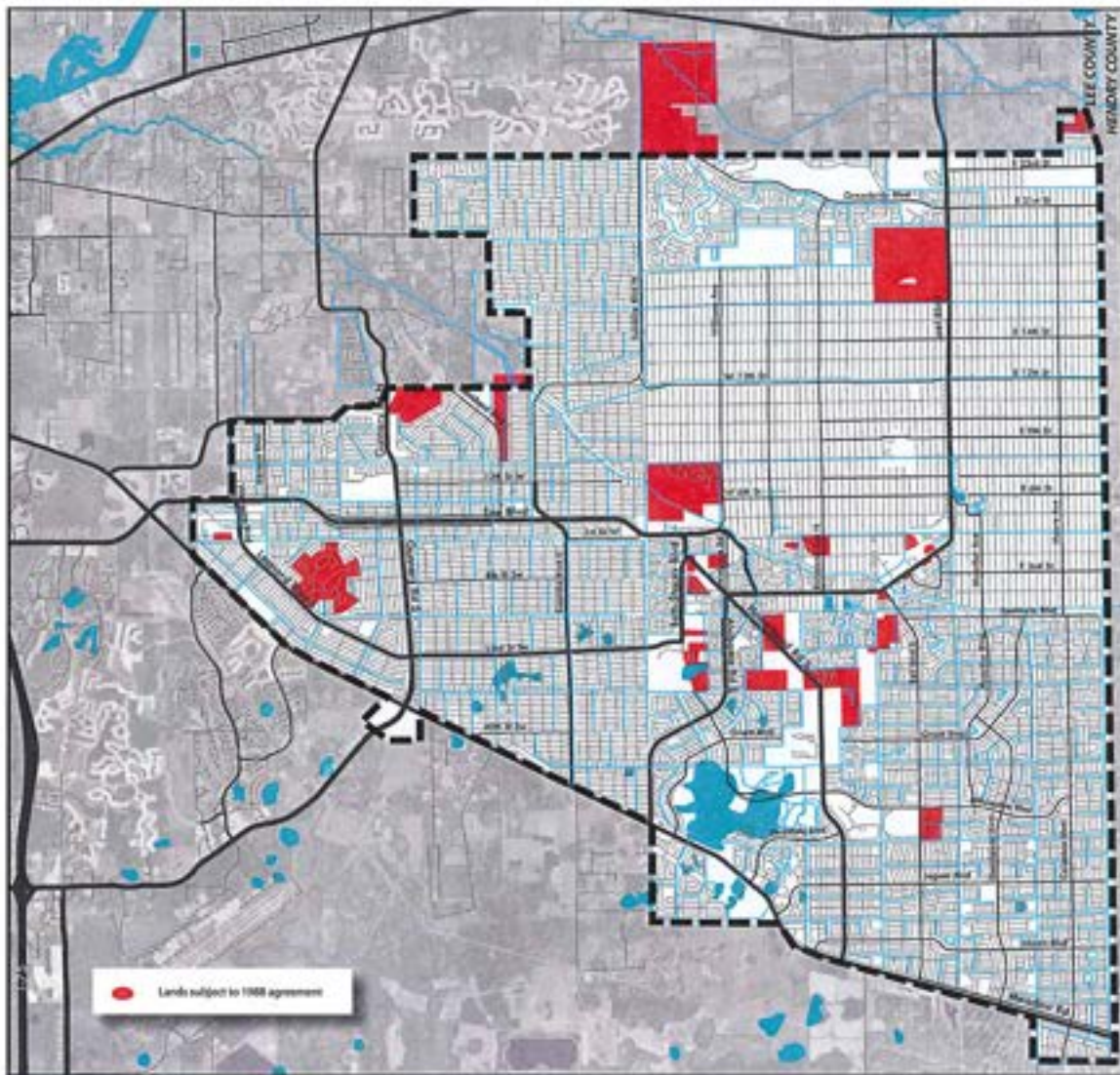


Figure 8: Lands subject to 1988 Stipulation & Settlement Agreements

Source: WRT & Clarion
based on Lee County documents

cally provided the same future land use designations to Lehigh Acres as the Lee Plan (1984). In 1990, Lee County's zoning district classifications for Lehigh Acres were consistent with the Future Land Use Map category designations. In order to comply with the mandate of Florida's 1985 Planning Act, the 1990 Lee Plan included a concurrency management program, which was implemented by the county through the adoption of land development regulations. Recognizing that there could be potential development conflicts and vested rights issues created by the new Plan, the Plan also included a section addressing the effect of the Plan on vested rights, both for consistency determinations and the application of concurrency.

6. June 9, 1992 - Stipulation and Settlement Agreement (Applications for Concurrency Vesting)

Request that Lee County Recognize Vested Status of Certain Property in Lehigh Acres From County Concurrency Requirements Established In 1990 Lee Plan/ County Response: In 1990, the Lehigh Development Corporation requested that Lee County recognize that all lands in Lehigh Acres were

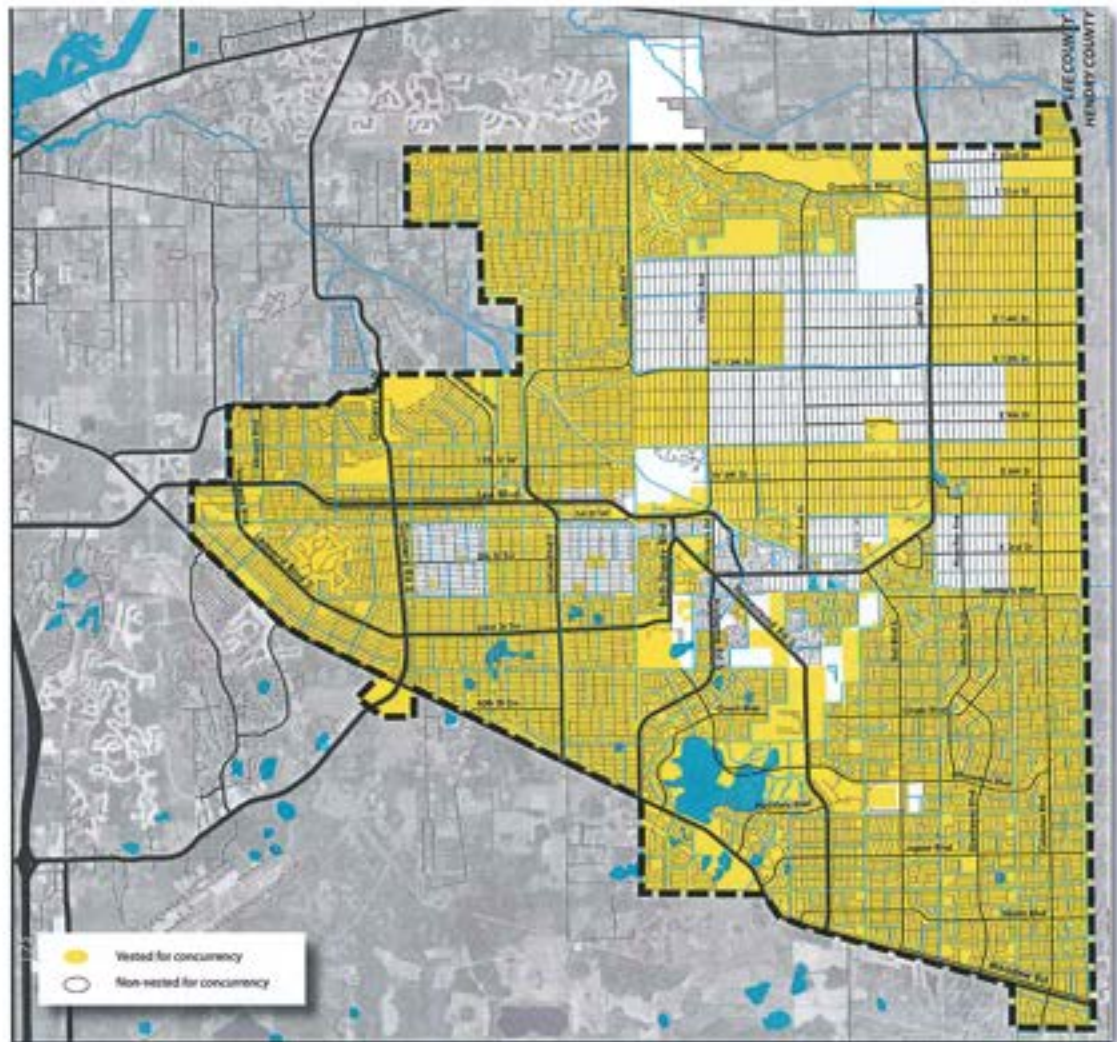


Figure 9: Lands subject to 1992 Stipulation & Settlement Agreements

Source: WRT & Clarion based on Lee County documents

vested for concurrency purposes. There was correspondence on this issue between Lehigh representatives and the County Attorney's office. (For example, the County Attorney's Office sent the Lehigh Development Corporation a letter on May 4, 1990 stating it did not consider the property identified in the 1988 Settlement Stipulation vested for concurrency purposes under the 1990 Lee Plan. The letter did state that it considered the lands platted and subject to the SPAA are vested with respect to concurrency.)

The Lehigh Corporation, pursuant to procedures established by the Plan, submitted three (3) separate Applications for Determination of Concurrency Vesting for Lehigh Acres lands. The County notified the Lehigh Corporation that the property in Application #1 was ineligible for vesting, and Lehigh filed a Request for Appeal of an Administrative Interpretation. It was determined the lands in Application #2 could complete development without compliance with the Lee County Concurrency Management Regulations. Finally, it was determined that a portion of the lands in Application #3 could complete development without compliance with the Lee County Concurrency Management Regulations, while other lands were subject to those regulations. Lehigh also filed a Request for Appeal of an Administrative Interpretation on Application #3, which was denied by the Hearing Examiner.

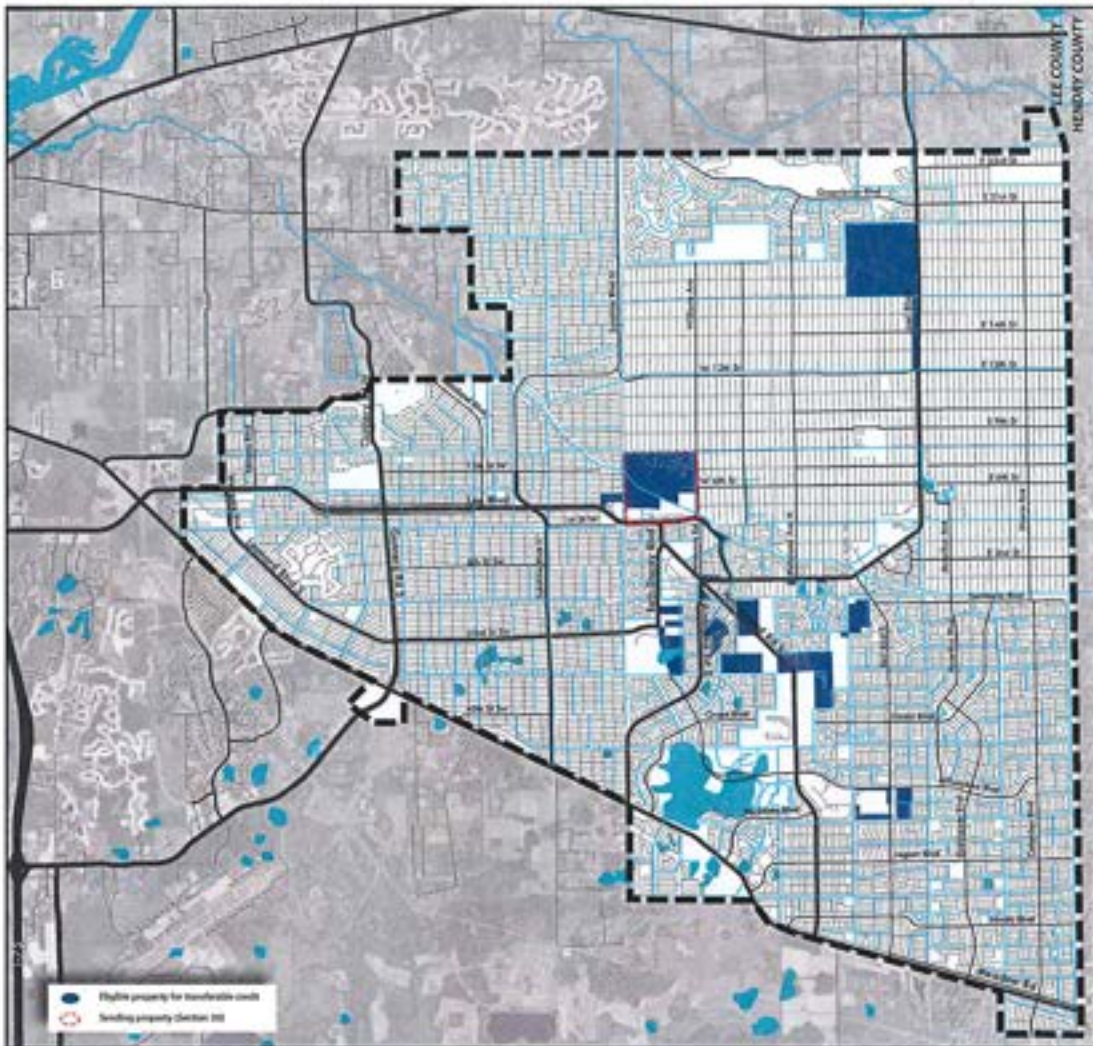


Figure 10: Lands subject to 1992 Agreements

Source: WRT & Clarion based on Lee County documents

County Petition for Writ of Certiorari and/or Complaint for Declaratory Relief and/or Complaint to Enforce Final Judgment (April 2, 1991): Subsequent to the Hearing Examiner's decision on Application #3, the Lehigh Development Corporation filed a Petition for Writ of Certiorari and/or Complaint for Declaratory Relief and/or Complaint to Enforce Final Judgment against Lee County. In the complaint the Lehigh Development Corporation alleged Lehigh Acres is vested for concurrency purposes because the permitting document that controlled development was the 1988 Settlement Stipulation and the SPAA and its 11 amendments.

The Stipulation and Settlement Agreement: The Lehigh Corporation and Lee County entered into a Stipulation and Settlement Agreement on June 9, 1992 to resolve the dispute. The Stipulation and Settlement Agreement identifies the rights of lands in Lehigh Acres with respect to vesting under the concurrency requirements in the 1990 Lee Plan and the County's concurrency regulations. As shown in Figure 9, the majority of property in Lehigh Acres is vested from meeting the concurrency requirements.

The premise of the concurrency system is to require that adequate roadway facilities be provided to achieve and maintain the adopted LOS standard,

or—lacking the facilities—development permits may not be issued. However, the effect of the 1992 SSA is to allow permits to continue to be issued for residential development on those lands in Lehigh Acres that are vested for concurrency purposes, even if concurrency requirements are not met. The 1992 SSA states that a Certificate of Concurrency exemption (“Certificate of Exemption”), issuable only to property identified as vested in the Agreement (per Figure 3), excuses the exempt property from compliance with the level of service standards set forth in the Concurrency Management Ordinance No. 89-33, as amended, (the “Concurrency Ordinance”).

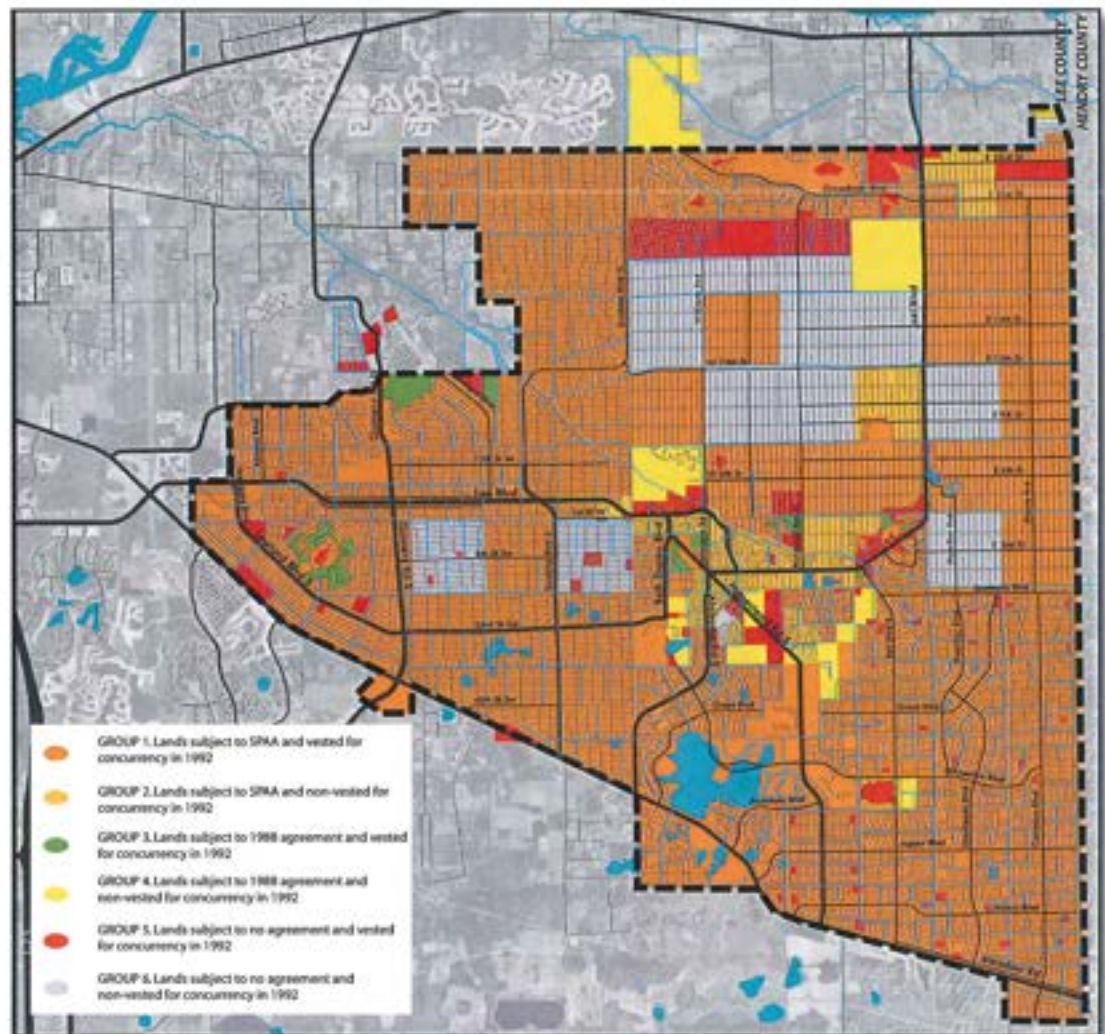


Figure 11: Summary of Agreements

Source: WRT & Clarion based on Lee County documents

II.3 Prior Plans and Studies

This section summarizes some key documents that have been prepared over the years with the goal of influencing development patterns in Lehigh Acres. It does not represent an exhaustive list of all the plans, studies, maps, or other data reviewed as the basis for this study.

The Lee Plan

All development in Lee County is managed through the Lee County Comprehensive Plan, also referred to as the Lee Plan, and its accompanying Land Development Code. Lee County originally adopted the Plan in 1984 to comply with Florida's 1975 Planning Act. In the late 1980s, Lee County prepared and adopted a new comprehensive plan to comply with Florida's 1985 Planning Act. This plan was adopted in 1989.

Since then, the Lee Plan has continued to be amended and updated as required by Florida law. The current plan, codified in 2007, has been amended over 50 times since 1989. This plan establishes a vision for the County as it is expected to be in the year 2030. Amendments adopted in 1999 established a framework of "planning communities" within the County. The plan's land use accommodation is based on an aggregation of allocations for the 22 planning communities, each of which is defined and envisioned "to capture the unique character of each area of the county."

It is noteworthy that those portions of the Lee Plan that pertain to the vision for the Lehigh Acres Planning Community in the year 2030 concede that the challenge of altering course is such, that much may not change in the next 12 years:

"17. Lehigh Acres - This community is the Lehigh Acres development, which was platted starting in 1954. This community is located south of Township 43 South, generally north of SR 82, and east of Buckingham Road/the Buckingham Rural Community Preserve to the eastern Lee County line. This community is designated as Urban Community, Central Urban, Industrial Development and Public Facilities. The Lehigh Community will continue to grow at a rate faster than the county average growth rate. This community, however, will not be close to build out by 2030. Lehigh will continue to struggle with providing sufficient non-residential uses to accommodate a community of its size. New provisions for providing these uses has been implemented and will aid in this problem, however, residents will continue to commute from this community to the core communities such as Fort Myers, South Fort Myers, and Gateway/Airport for employment, shopping and other services. This community will also struggle with providing an adequate road network to reduce traffic congestion as the population grows. (Added by Ordinance No. 99-15, Amended by Ordinance No. 07-12)." (Lee Plan Chapter I, p. I-8)

Similarly, the goals, objectives, and policies in the current Lee Plan that specifically concern Lehigh Acres acknowledge and comply with the legal constraints pertaining to vested rights, while attempting to establish a framework for orderly growth. At the core, however, there is an inherent disconnect between the character described in these policies and the character that may be achievable due to these legal constraints and the fundamental flaws in the subdivision design.



POLICY 1.1.3: *The Central Urban areas can best be characterized as the "urban core" of the county. These consist mainly of portions of the city of Fort Myers, the southerly portion of the city of Cape Coral, and other close-in areas near these cities; and also the central portions of the city of Bonita Springs, Iona/McGregor, Lehigh Acres, and North Fort Myers. This is the part of the county that is already most heavily settled and which has or will have the greatest range and highest levels of urban service -water, sewer, roads, schools, etc. Residential, commercial, public and quasi-public, and limited light industrial land uses (see Policy 7.1.6) will continue to predominate in the Central Urban area. This category has a standard density range from four dwelling units per acre (4 du/acre) to ten dwelling units per acre (10 du/acre) and a maximum density of fifteen dwelling units per acre (15 du/acre). (Amended by Ordinance No. 94-30, 02-02).*

POLICY 1.1.4: *The Urban Community areas are areas outside of Fort Myers and Cape Coral that are characterized by a mixture of relatively intense commercial and residential uses. Included among them, for example, are parts of Lehigh Acres, San Carlos Park, Fort Myers Beach, South Fort Myers, the city of Bonita Springs, Pine Island, and Gasparilla Island. Although the Urban Communities have a distinctly urban character, they should be developed at slightly lower densities. As the vacant portions of these communities are urbanized, they will need to maintain their existing bases of urban services and expand and strengthen them accordingly. As in the Central Urban area, predominant land uses in the Urban Communities will be residential, commercial, public and quasi-public, and limited light industry (see Policy 7.1.6). Standard density ranges from one dwelling unit per acre (1 du/acre) to six dwelling units per acre (6 du/acre), with a maximum of ten dwelling units per acre (10 du/acre). (Amended by Ordinance No. 94-30, 02-02)*

OBJECTIVE 1.8: LEHIGH ACRES COMMERCIAL USES. *Designate additional overlay zones on the Future Land Use Map to designate potential commercial land uses in Lehigh Acres. The distinction in Policy 6.1.2(7) between the two major types of commercial uses does not apply in Lehigh Acres. (Added by Ordinance No. 98-09)*

POLICY 1.8.1: *Commercial uses are permitted on lands in the Lehigh Commercial overlay once commercial zoning has been approved in accordance with this plan. Land in the Lehigh Commercial overlay may also be used for schools, parks, and other public facilities; churches and synagogues; and residential uses that provide housing alternatives to the typical 1/4 to 1/2 acre subdivision lots. Creation of new single-family lots smaller than one acre is not permitted due to the oversupply of standard subdivision lots. If cumulative new residential development takes place on more than 1% of this land per year, Lee County will take steps to provide additional commercial land in Lehigh Acres to offset the loss. Lee County will take steps to reduce any emerging surplus of commercial land in Lehigh Acres if cumulative new commercial development exceeds an average floor-area ratio of 1.0 (the ratio of interior floor space to total lot area). The prohibition on single-family development does not apply in the following portions of the Lehigh Commercial overlay: (1) that*

portion of Section 6, Township 45S, Range 27E lying south of 23rd Street Southwest and its easterly extension beyond Beth Stacey Boulevard, containing about 92 acres; and (2) those portions of Section 5, Township 45S, Range 27E described as follows:

(a) that part of the southwest quarter of the northeast quarter lying southwest of Homestead Road, containing 22.12 acres, and

(b) the west 364 feet of the north half of the southeast quarter, containing 11.00 acres, and (c) the southwest quarter of the southeast quarter less the south 175 feet of the east 125 feet, containing 39.50 acres. (Added by Ordinance No. 98-09, Amended by Ordinance No. 00-22).

POLICY 1.8.2: Commercial uses will also be permitted on all lots in the Reclaimed Strip overlay facing S.R. 82 once a corridor access management plan is adopted by FDOT governing that portion of S.R. 82. This plan would provide for additional road connections between S.R. 82 and Meadow Road at about 1/8-mile spacing with full access median crossings at about 1/4-mile spacing. All lots would ultimately have access to S.R. 82 via Meadow Road, which would serve as a reverse frontage street. Commercial uses would also be permitted on all Reclaimed Strip lots facing Gunnery Road if Lee County adopts a similar plan, with access to all lots being provided via Gretchen Avenue which would serve as the reverse frontage street. Until such plans are in place, those lots in the Reclaimed Strip overlay that do not qualify for commercial development under the location standards of Policy 6.1.2 may be used only for the residential uses permitted in the C-2 zoning district. (Added by Ordinance No. 98-09).

POLICY 1.8.3: Because of the shortage of suitable undivided tracts in Lehigh Acres, commercial uses may also be appropriate on certain other lands that might otherwise be used for residential lots.

1. Many such lands are designated with the Lot Assembly overlay. These lands are platted for single-family lots and are under multiple ownerships. Commercial uses on individual lots or small assemblies of lots would generally be intrusive to existing or emerging neighborhoods. However, assemblies of entire blocks would provide suitable commercial parcels. Major lot assemblies could qualify for commercial zoning whether assembled by government action, private sector purchases, cooperative arrangements between individual lot-owners, or similar arrangements.

2. Other tracts or combinations of platted lots in Lehigh Acres may also be considered for commercial rezoning (even if they are outside any of the three overlays) through the normal zoning processes or by requesting a new conventional commercial zoning district that may be created to address Lehigh Acres conditions. Lands suitable for such rezoning would include:

- a. Tracts that are assembled from vacant lots at the intersection of future collector or arterial roads in sparsely developed areas where there are very limited or no suitable commercial locations in any of the commercial overlays; or

b. Tracts that separate existing commercial and residential land uses where some commercial uses may be appropriate if they provide a substantial buffer and reasonably protect the privacy of existing dwellings.

Land-owners seeking commercial zoning under this subsection should expect a minimal level of commercial uses and/or to provide extra levels of buffering. Decisions on the suitability of any proposal will be made by Lee County on a case-by-case basis in order to implement the intent of these regulations.

3. Commercially zoned land not placed within one of these overlays can be developed in accordance with previous regulations, but may be subject to county-initiated rezonings to restrict or eliminate future.

***POLICY 2.4.2:** All proposed changes to the Future Land Use Map in critical areas for future potable water supply (Bonita Springs as described in Policy 1.7.10; Lehigh Acres as described in Policy 54.1.9; and all land in the Density Reduction/ Groundwater Resource land use category) will be subject to a special review by the staff of Lee County. This review will analyze the proposed land uses to determine the short-term and long-term availability of irrigation and domestic water sources, and will assess whether the proposed land uses would cause any significant impact on present or future water resources. If the Board of County Commissioners wishes to approve any such changes to the Future Land Use Map, it must make a formal finding that no significant impacts on present or future water resources will result from the change. (Amended by Ordinance No. 92-47, 94-30, 00-22, 02-02).*

***POLICY 37.4.1:** Based on short-term forecast conditions, Lee County in 2000 will investigate the creation of a Transportation Concurrency Exception Area in Lehigh Acres. (Added by Ordinance No. 00-08).*

***POLICY 54.1.9:** Lehigh Acres (as defined by outer boundaries of its Privately Funded Infrastructure overlay on the Future Land Use Map) is hereby declared a critical area for future potable water supply due to fluctuating water levels in the Sandstone aquifer. In response to this designation, the county will amend current regulations to provide that new wells in Lehigh Acres must be constructed to accommodate submersible pumps. (Also see Policy 1.7.10 for new permit requirements for irrigation wells in Bonita Springs, and Policy 2.4.2 for special requirements for amendments to the Future Land Use Map.) (Amended by Ordinance No. 94-30, 00-22, 02-02)*

***POLICY 69.2.2:** The County will cooperate with the Sheriff to evaluate the need for substation facilities in the Lehigh Acres and Alico Road/ Corkscrew Road areas, the East Fort Myers/Fort Myers Shores and Pine Island Center areas. (Amended by Ordinance No. 94-30, 00-22)*

Lehigh Acres Community Redevelopment Area Plan

In 1992, Minnesota Power—at 8,000 acres, one of the larger landowners in Lehigh Acres—promoted the creation of a Lehigh Acres Community Redevelopment Area (CRA), working with Lee County and other stakeholders. In 1994, the area was declared “blighted” under Florida redevelopment law, and a Community Redevelopment Plan and Agency were established. The CRA sought to address issues such as road conditions, transportation alternatives, public safety needs, storefront design, and community beautification. Actions were undertaken in some of these areas, but the termination of the County’s CRA program in 2000 halted their implementation.

Lehigh Acres Commercial Land Use Study

In 1996, the CRA hired Spikowski Planning Associates to prepare a commercial land use study for Lehigh Acres. Five proposals were developed to increase the amount of commercial development in the community:

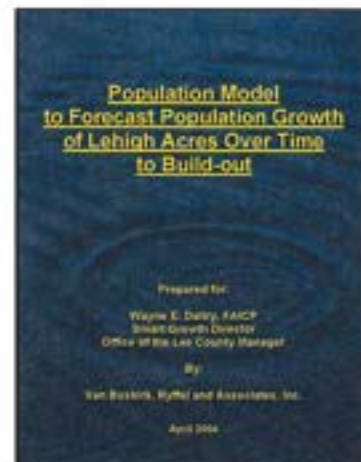
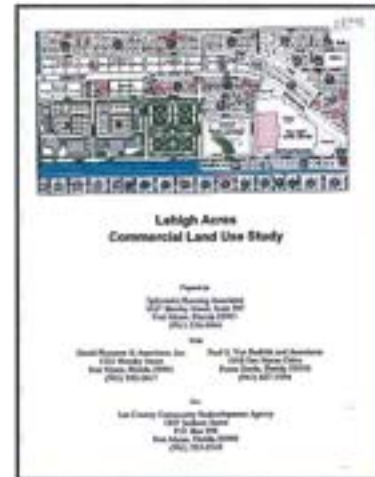
- Modify unnecessary regulatory barriers to the development of commercial use
- Focus on those parcels that are under unified ownership
- Reconfigure existing commercial strips
- Provide for commercial enterprises in relation to the development’s size
- Assemble as many lots as possible

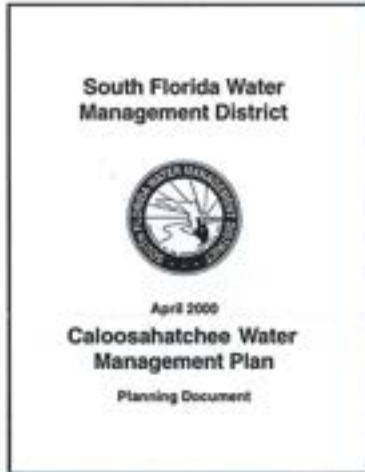
Although these proposals were not implemented immediately, due to the dissolution of the CRA, some of them have been integrated into the Lee Plan (Objective 1.8 and corresponding policies) and are also the basis for the recently adopted Commercial Overlay, which identifies sites appropriate for commercial use. A Mixed-Use Overlay will establish new site and building design standards for these areas. These directives have been beneficial, but may not go far enough to increase the quantity and quality of commercial to serve the anticipated population growth in Lehigh Acres over time.

Population Model to Forecast Population Growth of Lehigh Acres over Time to Build-Out

This study was prepared for Lee County Smart Growth in 2004 by Van Buskirk, Ryffel, and Associates, Inc. The purpose of the study was to forecast permanent population of Lehigh Acres, by five-year increments, to its build-out. The population projected at build-out in this report was 303,441, which would occur sometime after 2060.

The forecast study was presented as a critical building block to develop an interactive growth model in the future that would distribute the future population. A Lehigh Acres growth model would be invaluable to plan for growth, the reapportionment of land, timing of utilities, roads, other public services such as a fire house timing and location, open space, schools and commercial uses.” The report suggests that the model could be used to determine the amount of land use deficiencies for commercial, employment, and community facilities, determine the size and location for the appropriate distribution of these lands consistent with forecasted population growth over time, and use mechanisms such as condemnation or public-private partnerships





to acquire the necessary land. However, the study does not seem to have reviewed or take into consideration issues of vested rights that are prevalent in Lehigh Acres.

SFWMD Caloosahatchee Watershed Initiative/Lehigh Headwaters Initiative/South Lehigh Acres Historic Flow Restoration/ECWCD Comprehensive Water Resources Plan

The South Florida Water Management District (SFWMD) is collaborating with East Lee County Water Control District (ECWCD) for stormwater improvements, as part of the Caloosahatchee River Watershed Initiative. The Caloosahatchee River Watershed Initiative consists of a series of regional water projects. The ECWCD is located within the Caloosahatchee Watershed of Lee County, with discharges to the Orange River, Bedman Creek and Hickey Creek—all of which, in turn, discharge to the Caloosahatchee River.

One of the most significant findings of studies conducted is the projected need for 3,700 acres of additional storage within Lehigh Acres to address stormwater at build-out. Another one is that, without improved groundwater recharge, residential well failures are probable. Groundwater levels in the Sandstone aquifer for full build-out conditions are projected to be 5 to 37 feet lower than for existing conditions, and water quality will likely deteriorate. The Comprehensive Water Resources Plan (CWRP) will result in the targeted acquisition of land throughout Lehigh Acres for additional stormwater storage and groundwater recharge purposes (Figure 12), as well as the re-design of a number of the existing canal structures in order to increase storage and improve water quality.

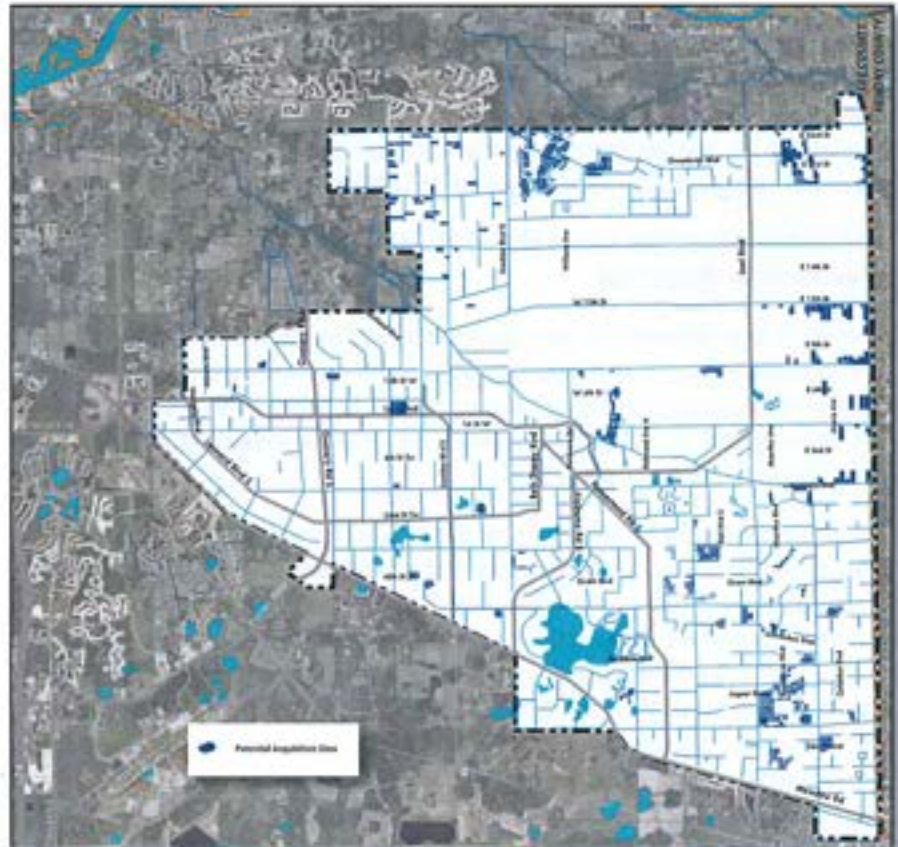


Figure 12: CWRP Potential Land Acquisition Locations
Source: ECWCD

2030 Long Range Transportation Plan

The 2030 Long Range Transportation Plan (LRTP) was adopted in 2005 and amended in 2006 and 2007. The Plan's primary purpose is to address future multimodal transportation needs of the Lee County area, while meeting the criteria of the Federal Transportation Equity Act of the 21st Century (TEA-21).

The LRTP attempts to forecast an area's mobility needs to a point in the future based on projected travel demands. The Plan is comprised of two major components: a needs assessment which identifies what projects are "needed" to meet the travel demands identified over the study period, and a financially feasible component which identifies what projects an area can afford based on its projected financial resources.

The Highway Element of the Plan identifies a series of projects in and around Lehigh Acres to improve road capacity and traffic flow. These include the widening of SR 82 by an additional 6 lanes; the expansion of I-75; the Luckett Road extension; and improvements on north Gunnery Road, Joel Blvd., Homestead Road, and other smaller projects within Lehigh Acres. Many of these projects are identified as "funding-contingent" as opposed to financially feasible in the mid range. (Figure 13)

One of the other critical elements of the LRTP deals with the provision of alternative transportation modes, in particular facilities for pedestrians and bicyclists. As part of financially feasible roadway improvements, the LRTP proposes new bike paths along portions of SR-82 and other sections internal to Lehigh Acres, consistent with the Lee County Greenways Plan.

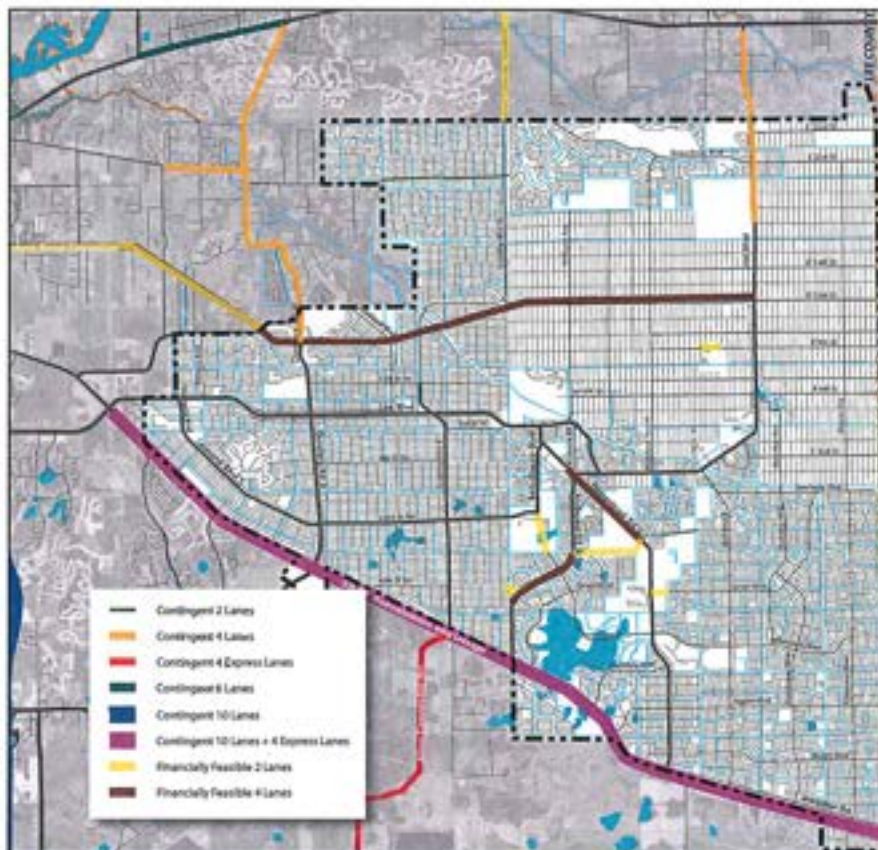
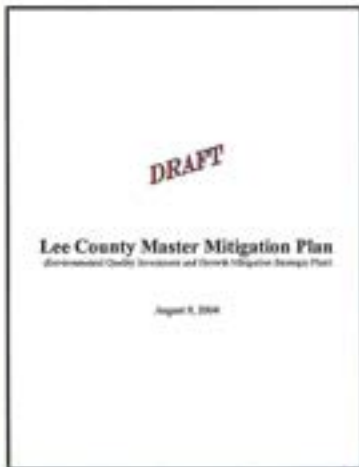


Figure 13: 2030 Long Range Transportation Plan Projects
Source: Lee County MPO-2030 LRTP



Lee County Master Mitigation Plan

The Lee County Master Mitigation Plan provides valuable information regarding natural systems in the County, including those components that exist in Lehigh Acres. The plan was developed as part of a strategy to allow future growth without having to sacrifice those natural systems, which are so important to the quality of life and economic development of the entire County.

The Mitigation Plan describes environmental factors relevant to conditions found in the Lehigh Acres community, namely: (a) the threat of brush fires, with their increasing impacts on the man-made and natural environment; and (b) the incidence and impacts of source and non-source pollution on surface and ground waters. The plan also documents the location and extent, and condition of wildlife habitats, such as that of panthers, and linkages throughout the County.

Prospects for Southeast Lee County: Planning for DR/GR Area

The Density Reduction/Groundwater Resource is a designation that was included in the Lee Plan as part of the implementation of a Stipulated Settlement Agreement between Lee County and the Florida Department of Community Affairs (DCA) in 1990. The DR/GR designation applies to 82,560 unincorporated acres in Southeast Lee County. The DR/GR area is located east of I-75, south of Lehigh Acres and the Southwest Florida International Airport, and extends to the county lines of Collier and Hendry Counties.

The DR/GR area stores and protects critical water supply for the region, and serves as a "buffer" between the urban areas of the County located to the west, as well as Lehigh Acres to the north, and environmental preserves and features located to the south, east, and southeast. Wellfields, fertile agricultural land, abundant wildlife, and uplands and natural wetlands interwoven into a system of connected flowways are some of the important resources that exist in DR/GR area. (Before the construction of SR-82, natural water discharge flowed from the southern portions of Lehigh Acres south through the DR/GR.)

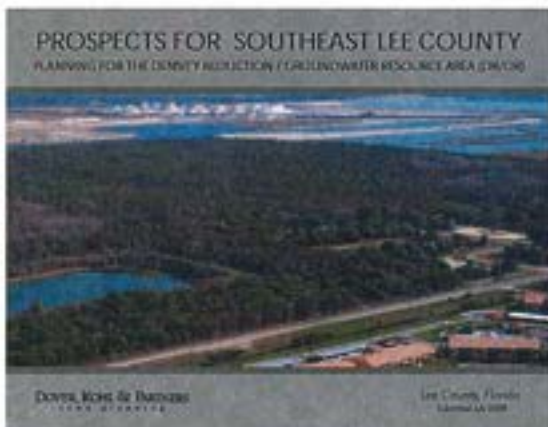
Wetland areas, which are common in the DR/GR, are designated with a residential density of one unit per 20 acres in the Lee Plan's future land use map. Five other land use activities are also permitted in DR/GR today: very low density residential (one unit per 10 acres); agriculture (citrus, row crops, and pasture); open space/recreation; conservation; and mining, which requires approval through the rezoning process. Increasing pressure for the expansion of residential and mining interests within the area, and impacts on its water storage and recharge functions due to intensifying land use activities elsewhere in the surrounding region, have raised questions about how to best protect the DR/GR while accommodating the traditional land uses and safeguarding the rights of landowners.

To address these concerns, in the fall of 2007 the Lee County BOCC endorsed a 14-point Action Plan, which included the formation of a DR/GR Ad-Hoc Steering Committee, and the commissioning of a major planning study involving four components: a mining truck impact evaluation, an integrated surface and groundwater model, detailed ecological mapping, and a land-use study. The products of these various efforts were completed in July

2008. The land use component, under the title of "Prospects for Southeast Lee County: Planning for DR/GR Area," presents three land use scenarios for the region. On July 31, 2008, the DR/GR Ad-Hoc Steering Committee recommended, by a vote of 9 to 4, that the BOCC adopt a modification to the three scenarios, consisting of a combination of Scenario 1 and a portion of Scenario 3. The vote "supports the modified scenario for a number of reasons, including the following:

- *The scenario encompasses impacted areas such as existing mines, as well as portions of partially permitted mines.*
- *It allows for expansion of mines in contiguous areas and use of existing mine infrastructure in lieu of establishing mine activity in new or more distant areas, thus concentrating mining in the traditional mining corridor.*
- *It provides protection of important water resources, habitat and wildlife.*
- *It provides a means to obtain sufficient aggregate to meet the needs of Lee County and the traditional market area through the year 2030.*
- *It provides a balanced and sustainable mix of mining, agriculture, preserved and restored lands, and rural quality of life."*

Among other actions, the Committee also favored considering a more aggressive use of transferable development rights (TDRs), emphasizing transfers to areas outside of the DR/GR, and to urban areas with high density transportation corridors. While not detailed in the Committee's recommendation, the DR/GR reports suggests it may also be possible to include the urbanizing portions of Lehigh Acres as candidate receiving zones for DR/GR development rights. This suggestion is perfectly compatible with the tiered growth concept described in subsequent sections of this document. In this concept, in fact, it is suggested that the feasibility of a TDR program should be explored, with potential sending zones to be identified in Tier 3, and receiving zones in Tier 1 and perhaps some sectors of Tier 2. The sending zone could easily be expanded to encompass portions of the DR/GR. A detailed TDR market study is recommended in the future. Consideration should be given in the study to other potential receiving zones in Lee County, urban or urbanizing areas that may be equally or better suited to higher development densities and where demand may be greater for such higher densities.



Transfer of Development Rights (TDR):

A land use regulatory tool under which development rights can be severed from a tract of land and sold in a market transaction. The parcel from which the rights are transferred is permanently protected from future development, and the purchaser of the rights may assign them to his or her own different parcel to gain additional density... A flexible tool that can be used by local or regional entities to direct growth and promote open space preservation, without spending much public funding.



SECTION III
COMMUNITY ASSESSMENT



III.1 Demographics

Lehigh Acres is considered a Census-designated place (CDP) by the U.S. Census. Through the 1990s, Lehigh Acres' population grew by about 146%. The 2000 Census counted 33,430 people, 12,707 households, and 9,250 families residing in Lehigh Acres. The racial makeup in 2000 was 75.3 percent White, 13.79 percent African American, 0.29 percent Native American, 0.84 percent Asian, 0.02 percent Pacific Islander, 3.77 percent from other races, and 1.99 percent from two or more races. Hispanic or Latino of any race comprised 13.4 percent of the population. Hispanics are one of the fastest-growing segments of the population. According to the U.S. Census Bureau's American Community Survey (ACS), the share of Hispanics/Latinos in Lehigh Acres was estimated to have grown to 23.4 percent of the total population by 2006 (compared to 16 percent of the overall population of Lee County).

Some 14,486 housing units were counted in Lehigh Acres in the 2000 Census. By 2006, according to the ACS, the number of housing units had grown to 26,813, an increase of about 2,000 units per year over 6 years.

The demographic portrait provided by the ACS in 2006 indicates that Lehigh Acres is becoming younger. In 2006, the average household size was 2.83 persons, and the average family size was 3.16 persons—both averages reflecting a rise over those (2.62 and 3.03, respectively) registered by the Census in 2000.

The median age in 2006 was 34.1 years, down from 38 years in 2000. The share of population comprised of children under the age of 5 years of age remained steady between 2000 and 2006, at about 6.9 percent, while 27.5 percent of the community's population were children under the age of 18 years. On the other hand, the population of adults 65 years of age or older shrank from 19.5 percent in 2000 to 11.4 percent in 2006.

Although Lehigh Acres started as a retirement community, it is clear that the area has been attracting families with children and younger people in significant numbers, due to its affordability relative to other areas of Lee County. This demographic shift raises a series of new challenges related to facility and service demands that must be considered in the planning process. For example, the acquisition of sites for schools, parks, and other facilities is already a burden, and will become more so as the population continues to grow. In addition, with more working-age residents, the lack of employment centers within the community will only continue to intensify road congestion related to trips to and from work, increase commute times, and undermine quality of life. In 2006, the mean travel time (MTT) to work for Lehigh Acres residents was nearly 32 minutes, compared to 26 minutes MTT for Lee County and 25 minutes MTT in the U.S. as a whole. Only 1.9 percent of the labor force reported working at home, whereas some 95 percent drove to work (nearly 85 percent of these drove alone).

The 2006 median income for a household in Lehigh Acres was \$46,008, and the median income for a family was \$51,486 (compared to \$48,553 and \$57,429 for Lee County for the same year). The per capita income was \$29,069. Nearly 6 percent of families and 8 percent of individuals lived below the poverty line.

In 2003, Lee County estimated the permanent population of Lehigh Acres at 41,788, and the functional population (i.e., permanent + seasonal populations) at 44,575. This reflected an explosive rate of increase of about 8.33 percent per year since 2000. Similarly, the U.S. Bureau of the Census American Community Survey estimates the 2006 population at about 67,863, a growth spurt of over 26,000 people between 2003 and 2006. The current market conditions have slowed down growth in Lehigh Acres over the past two years, as reflected in building permit reports. For example, during July of 2008, the County issued just 6 permits for new residential construction in Lehigh Acres, compared to 67 during the same month in 2007. Both of these numbers are significantly down from 2006, when 395 permits were issued for new residential construction during July. This slowdown is expected to continue at least into 2009—perhaps beyond—and represents a window of opportunity to set a different course for the future of Lehigh Acres, which was improbable a few years ago.

III.2 Existing Land Use Pattern

Two easily noticeable traits characterize the current pattern and distribution of land uses in Lehigh Acres, as shown in Figure 14: first, a considerable amount of vacant, platted lots remains; and, second, of those parcels that are developed, the majority are highly scattered and predominantly in single family residential use. Very limited commercial development occurs in a pattern on narrow strips along the primary, central corridors: Lee Boulevard, Homestead Road South, and Joel Boulevard.

Vacant land is the dominant use in the existing land use pattern, totaling about 32,828 acres, with the most sparsely developed areas located in the southeastern and northeastern parts of the study area. Most parcels consist of platted single family lots that range between one-quarter (1/4) and one-third (1/3) acres in area—too small, individually, to support viable commercial, industrial, or public facilities.

Vacant Residential:	32,311 net acres (93,742 parcels)
Vacant Industrial:	104.2 net acres
Vacant Institutional:	0.5 net acres
Vacant Commercial:	422.3 net acres
Total Vacant Acreage:	32,828 net acres
(out of approx. 46,423 net acres within Lehigh Acres as a whole)	

Table 1: Vacant Land Distribution (by Intended Use)

Source: Lee County GIS

Fragmented ownership is a challenge to the task of land assembly; however, there could be some noteworthy opportunities, particularly in the current market, where large development companies and builders own clusters of vacant lots.

Name of Holding Entity	Parcels	Acreage	Pattern
Adams	548	155	Scattered, Greenbriar
Capital International	331	92	Scattered
D R Horton	391	115	Clustered, adjacent to Caloosa Lake
First Home Builders of Florida	152	40	Scattered
Florida Land Financial Corporation	484	160	Clustered, adjacent to Greenbriar
Florida Landmark Commercial	256	206	Clustered, adjacent Aston Greens
Gassner Development	56	11	Clustered, adjacent Town lakes
Habitat for Humanity	477	132	Scattered
Holiday Builders	15	35	Scattered
HRK Real Estate Holdings	64	16	Scattered
Hurley Holdings	190	93	Scattered
Jordyn Holdings IV LLC	10	83	Clustered, adjacent Copperhead
K Hovanian First Homes LLC	1360	363	Scattered; Clustered in Greenbriar
KB Homes Fort Myers	231	31	Clustered, Vistanna Villas, Town Lakes
Kimball Hill Homes Florida Inc	87	22	Clustered, adjacent; Greenbriar
King Stafford C and Annette N	269	78	Clustered, adjacent Greenbriar
L Plus Land Dev/Builders LLC	76	20	Scattered
Lennar Homes Inc.	390	138	Clustered, adjacent Mirror Lakes
Llorian Investments Inc	53	14	Scattered
Lot Guys	61	19	Scattered
Lucas Robert	44	13	Scattered
Maddie Corporation	73	19	Scattered
Madussa LLC	69	19	Scattered
Maronda Homes	100	29	Scattered
Mayor Construction of Naples	61	19	Scattered
MW Johnson Construction of FL	365	81	Scattered; Clustered Shadow Lakes
National Recreation	370	116	Scattered
Olivias Savannah	248	176	Clustered Mirror Lakes
Park Place Ventures	27	9	Scattered
REO Properties	61	20	Scattered
RK Properties	99	36	Scattered
Saada Abe	81	22	Scattered
Siev Inc	115	50	Scattered
Strathas Contracting Inc	65	17	Scattered
Stonegate Group	44	14	Scattered Greenbriar
Swearingen John C	84	27	Scattered
Tax Free Strategies	213	67	Scattered
USA Land Investment Corp	52	24	Scattered, adjacent Mirror Lakes
USA Real Estate Solutions	100	27	Scattered
US Home Corporation	118	37	Clustered: Greenbriar
Walker Berry J Jr	86	17	Clustered: Town Lakes Ph 4
West Coast Turnaround	84	28	Scattered: Greenbriar

Table 2 : Potential/existing land assemblies (by ownership)

Source: Lee County GIS

Figure 14: Existing Land Use

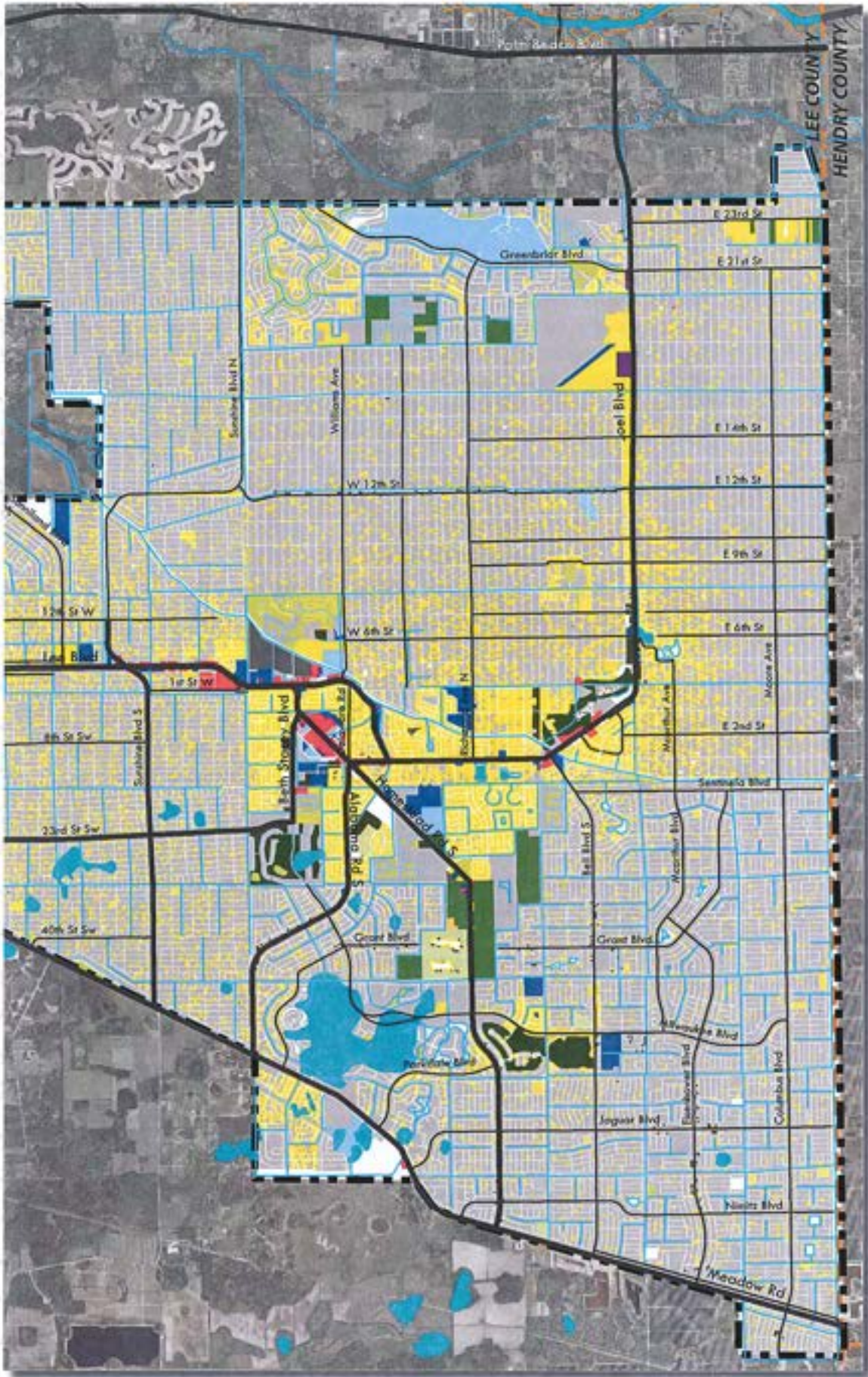
Source: Lee County GIS

- Residential: single family
- Residential: multi-family
- Residential: manufactured homes
- Commercial
- Industrial: manufacturing, warehouses, and industrial offices
- Government
- Institutional
- Parks and recreation
- Agriculture
- Open space
- Golf Courses
- Vacant
- Utilities
- Unknown



	Acres	# of Parcels	% acres
Single Family	9,208	27,456	20%
Multi Family	572	1,906	1%
Mobile Homes	14	7	0%
Commercial	291	181	1%
Industrial	172	72	0%
Government	915	88	2%
Institutional	579	49	1%
Parks and Rec.	53	14	0%
Agricultural	803	34	1%
Open Space	726	205	2%
Golf Courses	871	5	1%
Utilities	122	10	0%
Vacant	32,828	94,865	70%
Unknown	242	233	1%
Total	46,997	125,125	100%





Existing residential is most dense in the center of the study area, at the convergence of the area's major roads—Lee Boulevard, Homestead Road South, and Joel Boulevard. This pattern corresponds with the areas served by water and sewer infrastructure. Generally, housing throughout the rest of Lehigh Acres is more (in some cases very) scattered, detracting from the possibility of neighborhood cohesion or a community structure.

Single-family dwellings are the main type of residential development in Lehigh Acres. Of the 29,369 total developed residential parcels, about 27,463 comprise detached, single family structures. All but five of the remaining 1,906 residential parcels are classified as "multi-family, less than 10 units," which primarily means duplexes. For example, the Lehigh Estates neighborhood, located in the southwestern quadrant of the study area south of Lee Boulevard, contains 75 percent of the multifamily parcels. The remainder of the multifamily development is located along major roadway corridors, namely Buckingham Road, West 12th Street, Joel Boulevard, Alabama Road South, Grant Boulevard, Bell Boulevard, and Eisenhower Boulevard.

Total # of Parcels in Lehigh Acres	125,125
Total # of Residential Parcels	122,800
Total # of Developed Res. Parcels	29,369
Total # of Vacant Res. Parcels	93,742

Table 3: Residential Land Development Status
Source: Lee County GIS

Most of the homes located beyond the sewer service area are built on 1/4 acre lots and limited by Health Department rules to three bedrooms because of their reliance on onsite sewage treatment disposal systems (OSTDS, commonly known as septic tanks). Today, lots in Florida under 1/2-acre are not permitted to use an OSTDS without a variance. While in many municipalities and locales in the State a variance to this rule is rare, the State Variance Board of the Health Department has often issued variances in Lehigh Acres on the grounds that many of the parcels in the area were platted prior to the enactment of the related legislation. While this may not raise a general concern at the current low density of development (particularly if state-of-the-art OSTDS technologies are used, and the systems are properly maintained), if all of the single family lots located beyond the sewer service area were granted a variance to install an OSTDS, the concentration of such systems could eventually pose a health and environmental threat. Studies conducted in other areas of the country, including Florida, recommend not to exceed OSTDS densities of 2 systems per acre to minimize the risk of ground water contamination (see Section III.7, Infrastructure).

Overall, the amount of industrial and commercial development in Lehigh Acres is minimal, as are institutional and governmental uses. The key factors hindering the development of these uses are the lack of sufficiently sizable parcels, and the limited area serviced by central water and sewer, which are typically necessary to support such uses.

A concentration of light industrial uses and warehousing is located at the western gateway to Lehigh, south of Lee Boulevard. Concentrations of commercial use occur along Lee Boulevard, Homestead Road and Joel Boulevard. Institutional and governmental uses are clustered in the urban core.

III.3 Regulatory Framework

Two key pieces of local regulation direct the form, type, and amount of development in Lehigh Acres: the Lee County Comprehensive Plan, or Lee Plan, and the Land Development Code, which contains the zoning and development standards.

The Lee Plan

The Lee Plan identifies Lehigh Acres as one of 22 planning communities in Lee County. The Plan designates Lehigh Acres as an Urban Area, which allows for residential and nonresidential development at urban densities. Most of the land in Lehigh Acres, as indicated in Figure 15, is designated Urban Community in the Future Land Use Map. The community core was designated Central Urban. A very small area of Lehigh is designated for other future land uses, including Industrial Development.

The Plan states that "...The Urban Areas on the Land Use Plan Map are those portions of the County where urban development already exists or where it is located in the foreseeable future." The Urban Communities category recognized freestanding settlements that are somewhat removed from the Central Urban Area, and Lehigh Acres is specifically recognized in the Plan as one of these Urban Communities. Over 70 percent of Lehigh is designated as an "Urban Community." The Plan states that even though the Urban Communities have a distinctly urban character, they should be developed at slightly lower densities than the Intensive Development and Central Urban Areas. Predominant land uses are identified as residential, commercial, public, quasi-public, and light industrial uses. Standard densities range from two units an acre to six units an acre, with a maximum of 10 units an acre. The current average density in Lehigh Acres for those areas designated Urban Community is less than 0.4 du/ac.

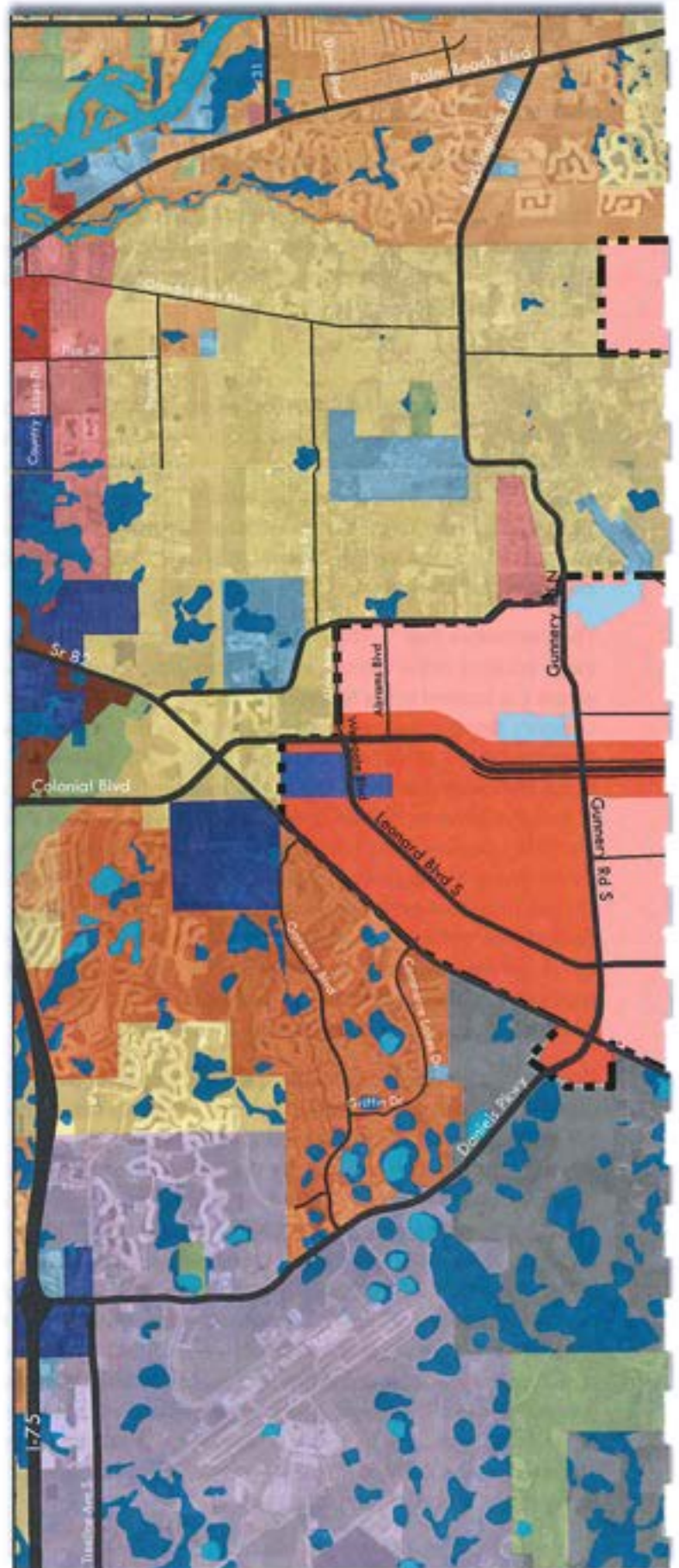
Central Urban is characterized as the "urban core" of the County. It is recognized as a part of the County that is or will be heavily settled, and with the greatest range and highest levels of urban service—water, sewer, roads, schools, etc. It is also meant to be the area in which public services could be readily extended to serve the outward expansion of central urban development that would be expected and which would be fostered at urban levels of density and intensity. The Central Urban designation, which encases much of Lee Boulevard, Joel Boulevard, and Homestead Road, covers approximately one quarter of Lee Acres. According to the Lee Plan, "Central Urban" is geared toward a range of land uses including residential, commercial, public, quasi-public, and light industrial. The Central Urban category was given a standard density range from five dwelling units per acre to 10 dwelling units per acre, and a maximum density of 15 dwelling units an acre. By comparison, the average density in the Central Urban area of Lehigh Acres today is less than 1 du/ac (.83 du/ac).

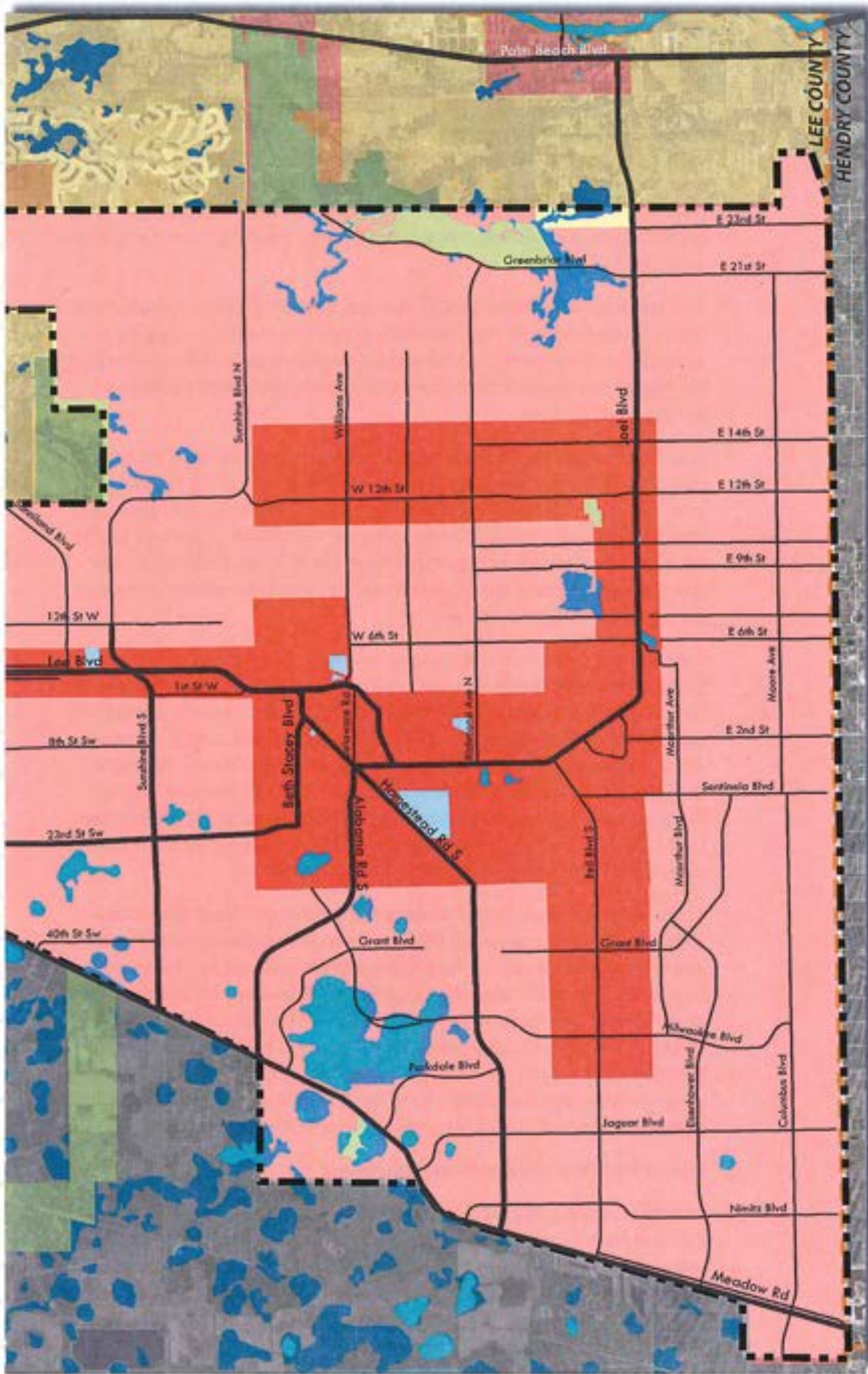


Figure 15: Future Land Use

Source: Lee County GIS

- Central Urban
- Urban Community
- Intensive Development
- New Community
- Suburban
- Rural
- Industrial
- Airport
- Public Facilities
- Conservation
- Wetlands
- Density Reduction





With over 95,000 of 125,500 parcels (comprising nearly 32,500 acres) currently vacant and falling into these two, very broad and potentially intensive future land use categories, Lehigh Acres could face a dramatic increase in the demand for services. While the platted pattern and the existing stipulated agreements presumably will prevent certain areas designated under either of these two categories from actually being built to the maximum density specified in the Future Land Use Plan, the delivery of necessary infrastructure—particularly the provision of water and wastewater infrastructure—will become an increasingly critical issue if development is not more strategically directed.

This challenge is compounded by standing exemptions allowing some sections of Lehigh Acres to not meet transportation concurrency. Despite any exemptions, development will have to be monitored so as not to overextend the current or planned infrastructure capacity for roads, water, or sewer, among other services.

Any effort to meet the future demand for services and amenities will be hindered by the current allocation of “public facilities” land in the Future Land Use map, which designates only 430 acres (or, equivalently, 0.01 percent of total land in Lehigh Acres) into this category. With much of this very limited amount of land already being utilized for public schools, parks, and other governmental facilities, the allocation reflects existing conditions more than planning for anticipated demand.

Based on the future land use designations in the Lee Plan, the pattern of growth envisioned for eastern Lee County sets Lehigh Acres as an island of “urban” development surrounded by distinctly low and very low-density areas. For example, to the south of SR-82/Immokalee Blvd., much of the land along Lehigh Acres’s southern border is categorized as Density Reduction/ Groundwater Recharge (DR/GR) or Wetlands, meaning that only very low densities will likely be permitted and limited or no services will be provided by the County. A newly prepared plan for this area recommends the types of land uses appropriate for the DR/GR, and their locations.

To the north and west, Lehigh Acres is surrounded by “Rural” and “Conservation” land, which has similar implications regarding the density of growth and extension of services as the DR/GR and Wetlands areas. To the east is Hendry County, which, at present and for the foreseeable future, is predominantly rural or developed at very low densities. Therefore, the likely pattern of future development surrounding Lehigh Acres is in marked contrast to the intensity of development designated within Lehigh Acres. This difference supports the notion that Lehigh Acres faces unique growth management issues that distinguish it from surrounding unincorporated Lee County.

Zoning and Land Development Regulations

The Official Zoning Map and the Zoning Regulations are the legal instruments used to control the use of land in Lee County. Lee County provides two types of zoning districts: Conventional Districts and Planned Development districts. Land in Lehigh Acres has been zoned into eight broad zoning categories representing both types of districts (Figure 16). However, multiple subcategories exist under each heading.

Conventional districts control land use through the regulation of the height and bulk of buildings and structures, the minimum area and dimensions of lots, the percentage of lot coverage, minimum open space and yard areas, through the use of setback requirements, the density of population, and the type and intensity of use of the land and buildings. The Conventional Districts that are implemented in Lehigh Acres are the following: Residential; Agricultural; Recreational; Community Facilities; Commercial; and Industrial.

The Zoning Map shows that Residential is the predominant zoning in Lehigh Acres. Four (4) single- and two-family zoning subcategories are represented on the map: Residential Single-Family Districts RS-1; RS-3; RS-4; and Residential Two-Family Conservation District TFC-2.

The RS residential single-family districts provide "opportunities for the suitable location of detached, conventionally built single-family dwelling units and for facilitation of the proper development and protection of the subsequent use and enjoyment thereof." While the prevalence of RS zoning reflects the intent of the original plat, and is cognizant of the vested rights and related stipulations that affect development in Lehigh Acres, it will also perpetuate the bedroom community character of Lehigh Acres into the future. These residential districts allow for few uses other than dwelling units and ancillary structures. While parks and public schools are permitted, new libraries are not; religious facilities and places of worship require a special permit, and there are no provisions for public safety facilities.

In addition to the single and two-family zoning categories, there is a significant occurrence of Multifamily zoning in Lehigh Acres. There are four Residential Multi-family zoning categories in Lehigh Acres: RM-2; RM-6; RM-8; and RM-10. These categories permit duplexes, multi-family buildings, conventional single-family residences, two-family attached homes, and townhouses. The RM districts are intended for use only within the future urban areas designated by the Lee Plan. In areas zoned RM in Lehigh Acres, duplexes are the predominant use. The concentration of these uses, coupled with the generally inferior design quality of the development, has raised concerns of overcrowding, littering, and crime, among other impacts.



Typical duplex in Lehigh Acres

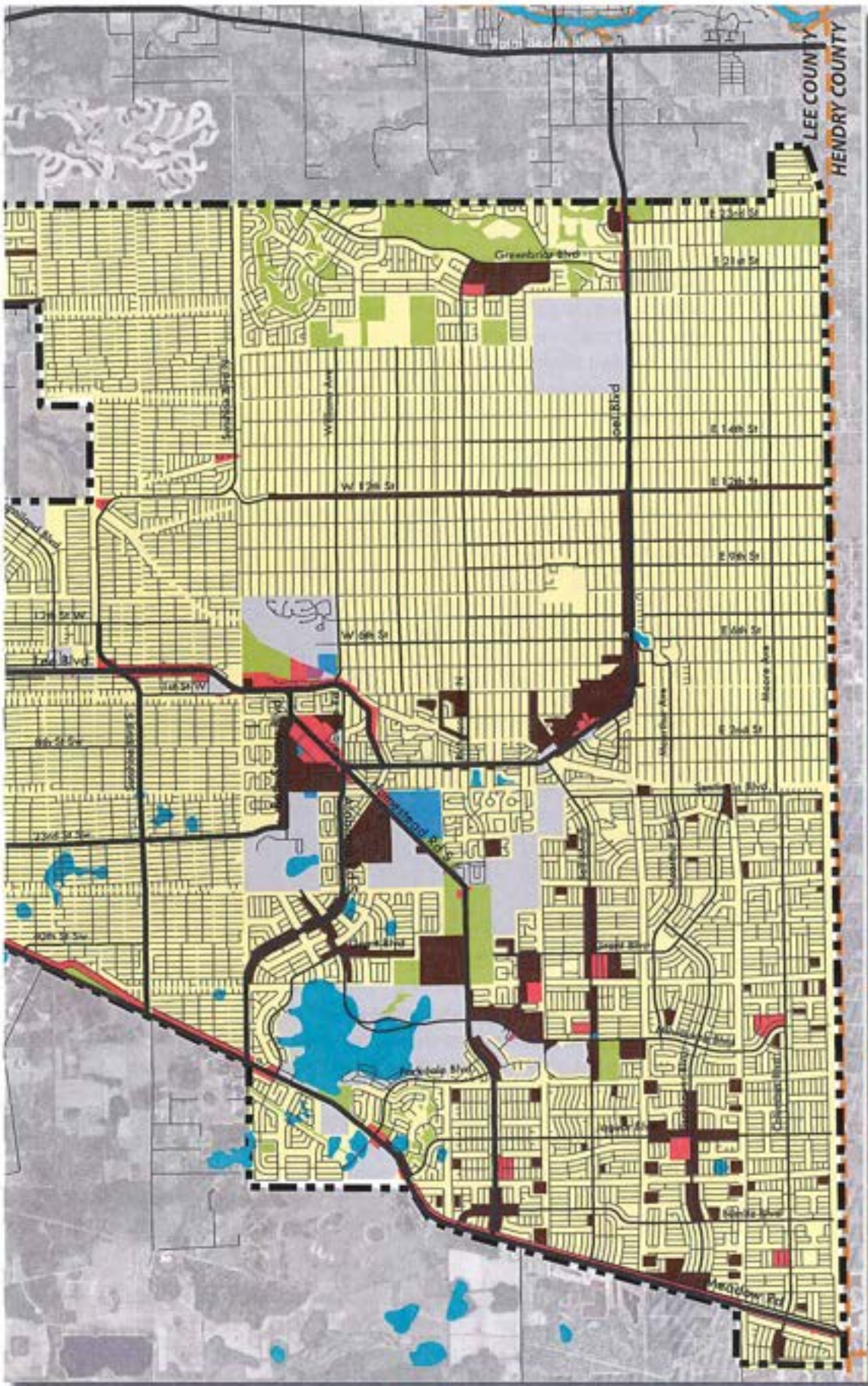
Figure 16: Zoning

Source: Lee County GIS

- Agricultural (AG-1; AG-2)
- Residential - One & Two Family (RS-1; RS-3; RS-4; TFC-2)
- Residential - Multi-Family (RM-2; RM-6; RM-8; RM-10)
- Planned development (CFPD; CFPD-RPD; CPD; MPD; PUD; RPD; RVPD)
- Commercial (C-1; C-1A; C-2; CC; CG; CN-1; CN-3; CP; CS-1; CS-2; CT)
- Community Facilities (CF-2; CF-3)
- Industrial (IG; IL)



	Acreage	# of Parcels	% acres
One & Two Family	37,283	112,037	79%
Multi Family	3,435	9,001	7%
Planned Development	1,339	1,988	3%
Commercial	1,418	1,642	3%
Industrial	206	87	0%
Community Facilities	103	6	0%
Agricultural	3,029	345	6%
Unknown	183	19	0%
Total	46,997	125,125	100%



Commercial development is permitted primarily in the future urban areas where requisite infrastructure exists or is likely to be extended. In Lehigh Acres, commercial zoning is concentrated in the Central Urban area or along major roadway corridors, but the amount of land designated for this use is very limited relative to the extent of developable area. There are fourteen different commercial categories currently represented within Lehigh Acres, ranging from neighborhood-oriented to highway-oriented. Some of these categories, such as CN (Neighborhood Commercial) are meant to encourage pedestrian activity, reduce the number and length of automobile trips, and improve general convenience for the surrounding residential neighborhoods. However, because commercial zoning tends to be clustered in the central area of the community, the intended benefits of this zoning may never reach many peripheral and isolated neighborhoods in Lehigh Acres. More prevalent seem to be designations in the Central Urban area that allow the development of automobile-oriented "strip" commercial. Further, in these areas, the depth of parcels is often not sufficient to allow a different development pattern, nor the introduction of transitional uses between commercial and residential uses, such as office.



Recent "strip" commercial development along Lee Boulevard

The Zoning Regulations state that, "subsequent to August 1, 1986, with the exception of rezonings to recognize and accommodate existing developments, no parcel of land of ten or more acres in size shall be rezoned to any of the conventional commercial districts." The County has adopted an amendment to the Lee Plan creating Mixed-Use and Commercial use overlays, some of which apply in Lehigh Acres. However, the Lehigh Acres commercial overlays appear to extend primarily to areas that are designated commercial zoning or planned development today. Therefore, progress toward dispersing commercial activity to serve development outside the urban core is limited.

There are also three industrial zoning categories represented in Lehigh Acres, although very small in area and located primarily at the western edge of Lehigh: IG, IL, and IPD. The IL is devoted to light industrial and quasi-in-

dustrial commercial uses that typically take place within enclosed buildings. The IG district is for heavy industrial uses which have the potential of producing extensive adverse impacts on surrounding land uses or resources. The principal use of the IPD industrial planned development district is the manufacture of goods and materials, and the storage and wholesale distribution of such goods and materials. The IPD district permits many services and activities not allowed elsewhere and a limited number of commercial uses intended to serve principally the employees or patrons of businesses within the IPD.

There are three types of community facility zonings within Lehigh Acres: CF-2, which is primarily to accommodate social and limited health related services; and CF-3, which primarily accommodates government service facilities. These zoning districts are also concentrated in the Central Urban area of the community. These zoning categories include parks, but there is no separate zoning category in the Ordinance to designate open space, recreation facilities, or parkland.

There are also some significant tracts zoned Planned Development (PDs). The PD districts *"encourage the arrangement of a compatible variety of uses on suitable lands in such a manner that the resulting development will realize the goals, objectives and policies of the Lee Plan."* The PD zonings are concentrated in the south central part of Lehigh Acres and encompass existing or ongoing large-scale developments.

Special Overlay Districts

Mixed Use Overlay

"Mixed Use Overlay" was added to the list of Future Land Use Map categories during the 2005-2006 Lee Plan amendment cycle. The new category may be applied to locations that are in close proximity to public transit routes, educational facilities, recreation opportunities, or existing residential, shopping and employment centers. The overlay is meant to stimulate developments with a range of housing opportunities; walkable neighborhoods; distinct character; and a mix of uses and design concepts that lessen the burden on traditional roadway infrastructure, such as increased transit service, internal trip capture, and reduced travel distance. By 2009, language will be incorporated into the Land Development Code that steer development in Mixed Use Overlay Districts toward New Urbanist design principles and address issues such as building placement, volume, and facade, pedestrian amenities, parking, open space and buffering, and human-scale streetscapes.

Commercial Overlay

One of the most important initiatives resulting from the Lehigh Acres Commercial Land Use Study Implementation Report was to create commercial overlay zones in Lehigh Acres. In order to create the three new Commercial Overlay Zones and identify specific land parcels for each, the Lee Plan Future Land Use Map was revised and these amendments were enacted in 1998.

The first zone, 'Lehigh Commercial' (Policy 1.8.1), was created for the most promising commercial lands. The creation of new single family lots smaller than one acre are not permitted in the zone; however, residential uses that provide housing alternatives, schools, parks, other public facilities, churches and synagogues may be developed on smaller lots.

The second zone, 'Reclaimed Strip' (Policy 1.8.2), designates portions of existing commercially zoned strips along Gunnery Road and S.R. 82 that could be reclaimed for actual commercial use. While the reclamation of these zones was contingent on the adoption—which occurred recently—of a Corridor Access Management Plan for S.R. 82, the reclaimed zones encompass long but narrow bands of land that face residential neighborhoods and which will use residential collector roads as the primary access ways for the vehicular traffic generated by commercial uses. Further, the underlying C-2 zoning also allows for residential uses to occur on these parcels, consistent with the vested rights agreements. Through the analysis of land use patterns and other factors, it is apparent that this arrangement may not be as effective as originally thought to add viable commercial parcels to the inventory of community serving land in Lehigh Acres.

The last commercial overlay zone designates areas suitable for 'Lot Assembly' (Policy 1.8.3), which encourages private assembly of individually owned lots to create suitable commercial parcels. However, without further incentive, it is questionable if developers will undertake assembly of individually owned single-family lots.

III.4 Community Structure/Urban Design

The block pattern in Lehigh Acres, while generally rectilinear, lacks continuity and consistency (Figure 17). Many of the streets running north/south are slightly offset from one another between one block and the next, and canals running both north/south and east/west frequently bisect roads, disrupting the flow of the grid. As a result, the street pattern is not intuitively navigable; there is no discernible hierarchy (major arterials excepted) or identifiable community structure. This, coupled with the lack of memorable landmarks, the absence of compelling natural form-givers, and generally undistinguished architecture, is detrimental to the community's visual identity and its sense of place. These factors also have a negative effect on wayfinding, as well as (potentially life-threatening) on the timely delivery of emergency services.

Another challenge of the subdivision layout is that blocks tend to be too long to be pedestrian-friendly. As a rule of thumb, pedestrians are willing to travel between $\frac{1}{4}$ - to $\frac{1}{2}$ -mile (1,320-2,640 feet)—between five and ten minutes—between origin and destination; say from their residence to a node of commercial development or a community facility. Most of the blocks west of Sunshine Boulevard, which are in a general grid formation and oriented east/west, average 850 long and 325 feet wide. East of Sunshine Boulevard North and north of Lee Boulevard, Leeland Heights Boulevard and Sentinela Boulevard, the blocks are even larger—1,300 feet by 470 feet.

The remaining blocks in Lehigh Acres, east of Alabama Road South and south of Leeland Heights Boulevard and Sentinela Boulevard, are inconsistently sized and inconsistently oriented, forming an irregular mix of grid and curvilinear streets. The dispersion of development and the imbalanced mix of land uses compound the challenge to create a rational community structure in Lehigh Acres, with humanly scaled, pedestrian-friendly, cohesive and identifiable neighborhoods.

A number of "neighborhoods" (subdivisions) have been platted in Lehigh Acres over the years, but their scale is in the order of small-sized suburban communities. Some of the largest (as measured by the number of lots) include:

Development	Total Units	Developed Lots	Total Acres	Developed Acres
Greenbriar	4,989	1,089	2,098	709
Lehigh Estates	4,687	1,502	1,525	491
Mirror Lakes	3,805	1,051	1,890	681
Southwood	2901	370	800	102
Lehigh Park	1781	451	745	198
Twin Lake Estates	1321	218	388	68
Leeland Heights	894	623	320	228
Willow Lake	726	721	193	191
Parkwood	688	589	174	162
Country Club Estates	648	565	207	175
Westminster	612	578	195	107

Table 4: Lehigh Acres Platted "Neighborhoods"

These "neighborhoods" are primarily designated for residential use; however, the majority of the land in these subdivisions remain vacant. Because development is very scattered and there is no central commercial node or community complex in these "neighborhoods," many lack a discernible visual identity and functional cohesion.

More noticeable from the community-wide land use pattern is a community framework or structure based on densities of development and level of service availability, and consisting of three major sectors, bands, or tiers (Figure 18). The first sector can be characterized as the "urban core" of Lehigh Acres, the older area of the community, generally extending linearly along the Lee Boulevard, Homestead Road, Alabama Road corridors, which has had time to develop more fully and is served by a complete or near-complete array of public services—central water and sewer, urban roads, schools, libraries, and parks, etc. The second band, which adjoins the core on its north, southeast and southwest sides, is less developed, but it is evolving gradually into a suburban character area. Services are either available or accessible/extendable from the core. The third band, extending outward to the north and east of the first two, is sparsely developed and few or no services exist or are planned to be extended in the foreseeable future.

Figure 17: Block Pattern

Source: WRT based on Lee County GIS



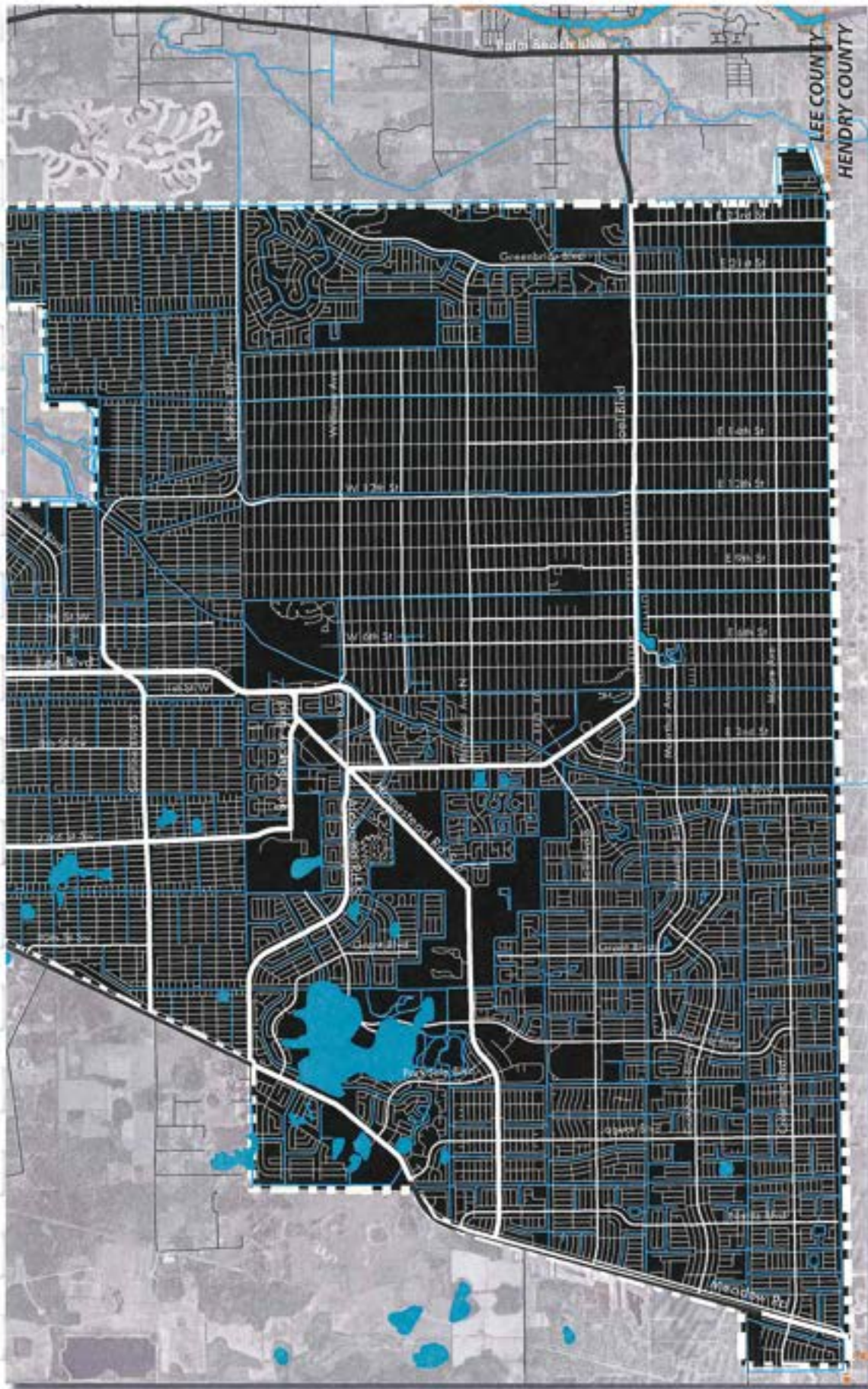
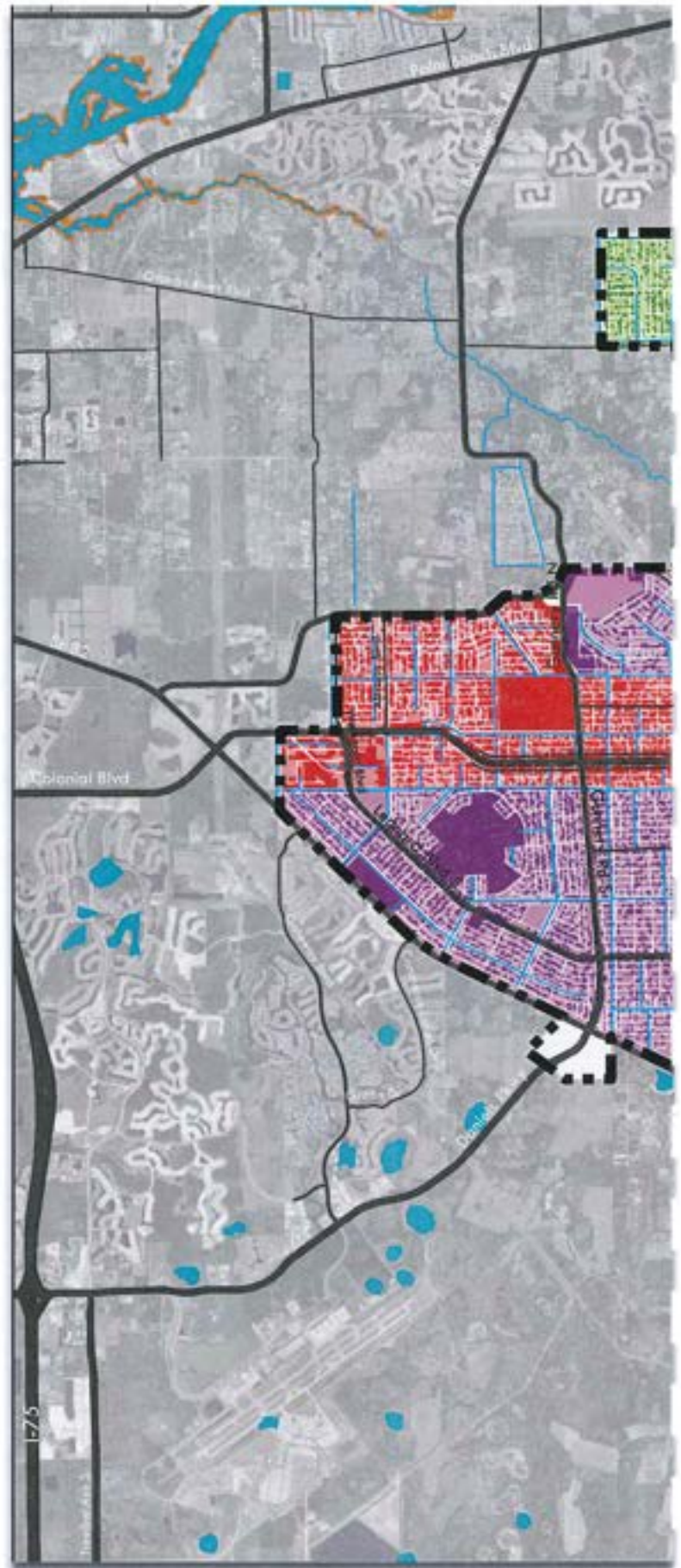
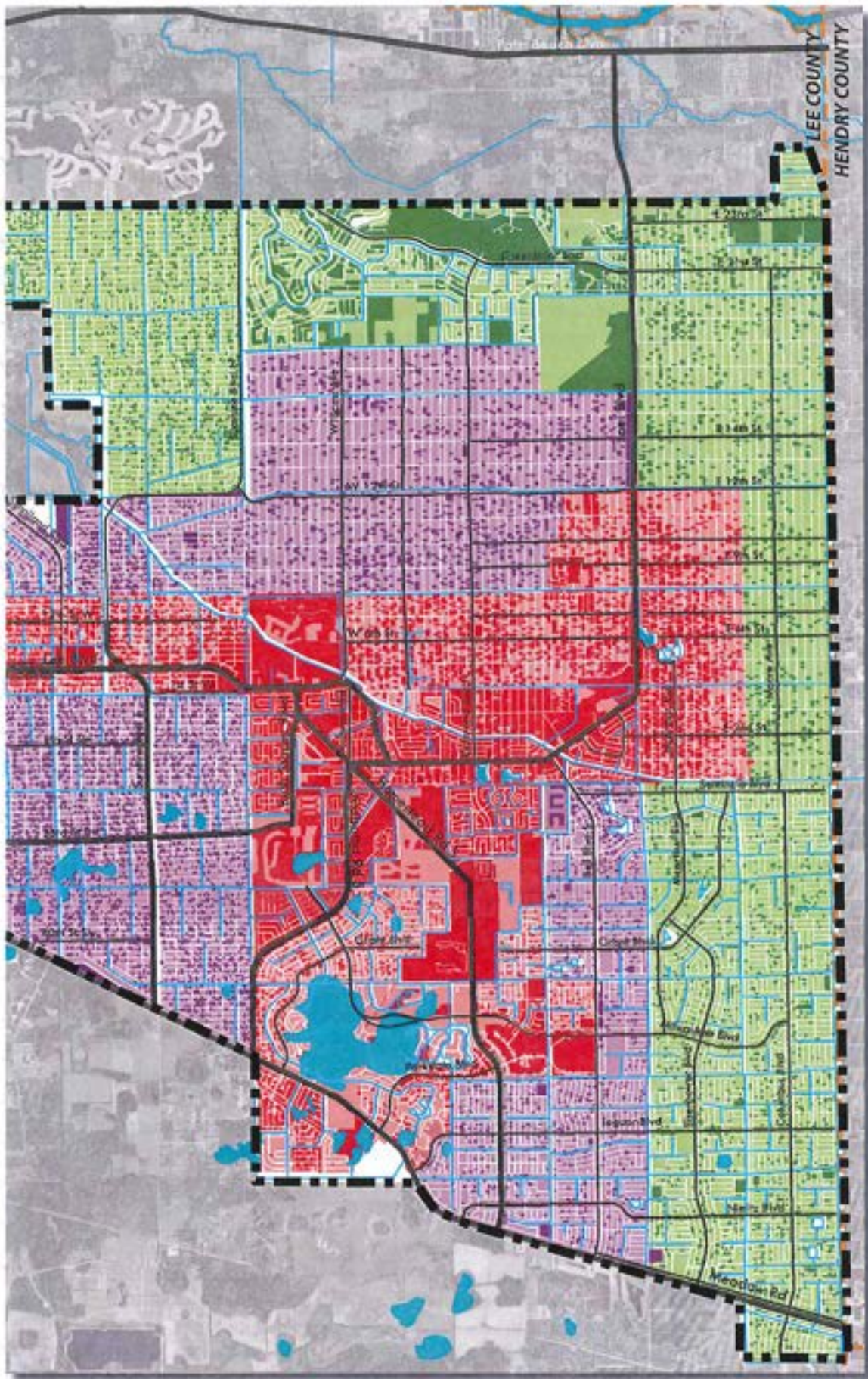


Figure 18: Community Structure

Source: WRT based on Lee County GIS

- Predominantly developed
- Partially developed
- Sparsely developed





III.5 Natural Factors

Natural features have not played a major role in shaping Lehigh Acres, nor have they been a major constraint to development. Historic aerial photos show that this region was primarily pine flatwoods and wetlands, which at some point may have covered as much as 80% of the area. While development has occurred in many of these areas, wetlands are still present in Lehigh Acres, as evidenced by the soil conditions analysis that follows. A new wetlands mapping effort was part of the East County Water Control District's Lehigh Headwaters Initiative (Figure 19). Pursuant to the Clean Water Act, a permit from the Army Corps of Engineers is needed to place fill material into wetlands and other waters. Where wetlands are present, a permit from the Corps is also required before construction can be approved.

Water Resources / Management

All of Lehigh Acres falls within either of the two basins of the Caloosahatchee River Watershed: the West Caloosahatchee basin in the northern part and the tidal Caloosahatchee in the southern part of Lehigh. High recharge (water added to groundwater) to the water table is prevalent along the southern portions of tidal Caloosahatchee. (Figure 20) Lehigh Acres is the headwaters area of streams and rivers including the Caloosahatchee River, Orange River, Hickey's Creek, Bedman Creek, Estero River and Imperial River and sheet flow areas also provide substantial recharge to the sandstone aquifer. Past and ongoing studies suggest that historical drainage activities have compromised the hydrological and ecological functions provided by this area.

Last April, the East County Water Control District (ECWCD) proposed 'The South Lehigh Acres Historic Flow Restoration' project aimed at reducing the surface water flow impacts on the three natural outfalls from the district by increasing storage in the system, rerouting surface water flows, and developing basin interconnections. This project would result in improved water quality, storage and ground water recharge in the subject area by implementing the needed drainage improvements necessary to reestablish the natural discharge routes and interconnections of the ECWCD with the Caloosahatchee River and Estero Bay.

The purpose of the Lehigh Headwaters Initiative is to develop and guide future modeling, planning and design objectives, minimize environmental impacts and identify opportunities for restoration and enhancement of natural resources within and adjacent to the ECWCD. With sparsely developed single-family residential areas in the northern and southern sectors of the community, and some fairly densely developed sections in the central area, Lehigh Acres produces a large amount of stormwater runoff that flows through the network of canals into Bedman Creek, Hickey's Creek, the Orange River, Able Canal, and the Caloosahatchee River.

The ECWCD drainage network comprises of 589 canals running a cumulative length of about 356 miles. Notwithstanding the abundance of canals, the findings of ECWCD studies show a clear need to expand water storage and recharge areas in the community to handle present and future demand. The ECWCD Comprehensive Water Resources Plan projects a need of 3,700

acres of additional stormwater management facilities when the community is built-out. Continued development of the northern part of Lehigh Acres alone will produce excessive stormwater runoff into the Bedman and Hickey Creeks, threatening serious flooding and water quality problems.



Lehigh Acres ECWCD Drainage Canals

Water for urban and agricultural uses in the Lower West Coast (LWC) Planning Area, which includes Lehigh Acres, comes from surface water and three major aquifer systems: the Surficial Aquifer System (SAS), the Intermediate Aquifer System (IAS) and the Floridan Aquifer System (FAS). The SAS is typically divided into two aquifers, the water table and Lower Tamiami. The IAS also includes two aquifers in much of the LWC Planning Area, the Mid-Hawthorn and the Sandstone. The main aquifer resources for the Lehigh area are the Sandstone Aquifer and the Lower Tamiami Aquifer.

According to the LWC *Water Supply Plan Update: Issue Identification*, surface water drainage features have significantly impacted groundwater levels in many areas of Lee County, including Lehigh Acres. The SFWMD points out that the water levels in the Sandstone Aquifer in Lehigh Acres remain low and show a declining trend and significantly increased seasonal water level fluctuations associated with increased pumpage. Chronic water shortage conditions develop during dry periods for users of the SAS and the IAS. Concentrations of domestic wells in the area that pump from the same aquifers results in seasonally low water levels and contributes to well failures and water quality deterioration. Population increases that result in construction of additional domestic wells each year exacerbates these problems.

Another issue of concern is the increasing number of emergency permits being requested to deepen existing wells that have gone dry during the drought season. SFWMD suggests consideration of the following alternatives to the continued development of these resources for high-density domestic self-supply: Accelerating the extension of public water supply lines, coupled with mandatory hook-up to available municipal lines and required proper abandonment of domestic wells should be considered; and modifications to existing landscape ordinances to further minimize outdoor water needs should also be evaluated.

Figure 19: Wetlands

Source: ECWCD GIS

● Wetlands

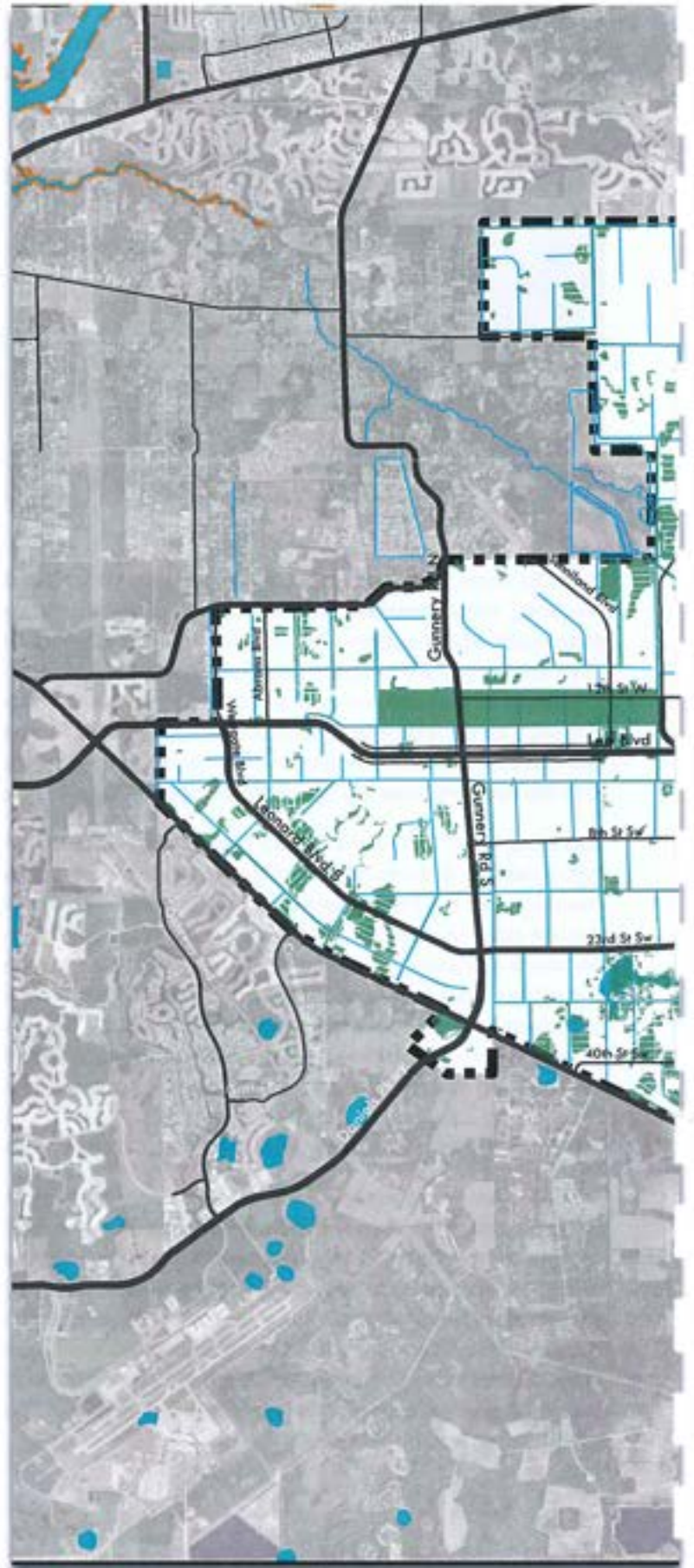
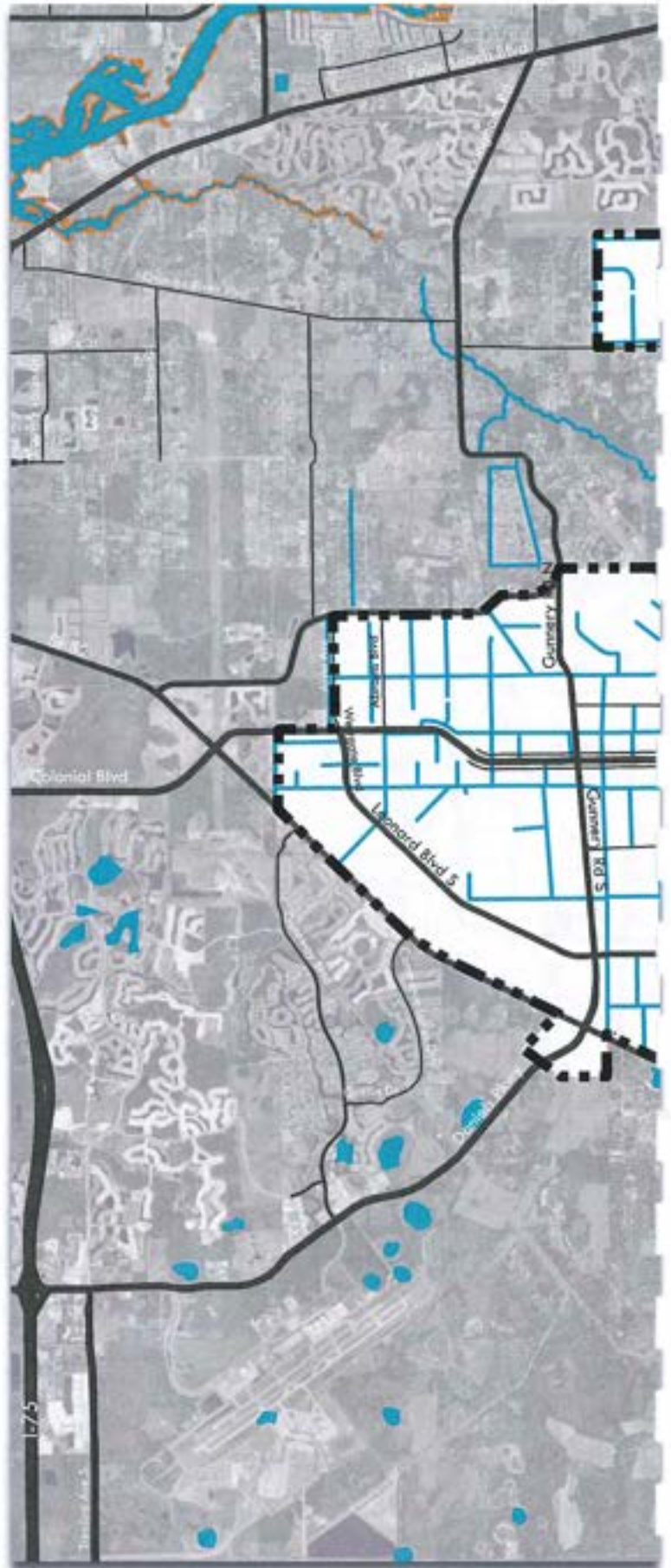


Figure 20: Water Resources / Management
Source: Lee County Mitigation Master Plan

— Flowways



III.6 Transportation

The roadway network in Lehigh Acres is functionally classified into arterials, collectors, and local roads. Today (as seen in Figure 21) Lee Boulevard is the only major arterial that provides direct access from the urban areas of the County into the heart of Lehigh Acres. However, only SR 82 provides a continuous link to the regional roadway network, to downtown Fort Myers via MLK Blvd. (and north, across the Caloosahatchee River, connecting to US 41/Tamiami Trail); and south through Hendry and Collier Counties, to I-75/Alligator Alley via SR 29. Similarly, Gunnery Road is the only continuous north-south arterial that crosses Lehigh Acres. Sunshine Boulevard, Alabama Road, Homestead Road, and Joel Boulevard provide partial connectivity to the north and south portions of Lehigh Acres and to the surrounding areas. The southern half of Lehigh Acres is better served by arterials, while northern half is crisscrossed primarily by collector streets.

Although the pattern of streets in Lehigh Acres is a basic grid, many of the local streets terminate at canals, disrupting the network flow and hindering continuous circulation (Figure 22). Currently, there are only thirty-three (33) canal crossings throughout the nearly 100 square miles in Lehigh Acres, whereas in Cape Coral, with similar conditions, the number of bridges is 154 and in Fort Myers, 83. Of the total number of bridges in Lehigh Acres, only seven (7) are maintained by Lee County. Twenty-two (22) others are maintained by the East County Water Control District. How the responsibility for new bridge construction projects is allocated between these entities is unclear.

The road network deficiencies are compounded by the fact that many of the local streets do not align from block to block. The Sheriff's Department and the Fire District have reported that emergency response times are increased due to the lack of street continuity and difficulty of navigating a roadway network that is not intuitive.

Road conditions are also a concern. Many of the local roads do not meet current County standards for right-of-way width, and, as shown in Figure 23, are in extremely poor condition due to their age, initial construction quality, and lack of regular maintenance. Over 50% of all roads, and over 70% of local roads in Lehigh Acres are classified as in "poor" to "failing" condition by the Lee County Department of Transportation. In 2006, the cost of resurfacing every street in need within Lehigh Acres was estimated to exceed \$70,000,000. While Lee DOT considers road maintenance a matter of public



Examples of the range of road conditions in Lehigh Acres.

health, safety, and welfare, with limited funding only a small number of resurfacing projects can be prioritized from year to year. In FY 2008, the County's Resurfacing Roadway Improvement program targeted 41 such projects in Lehigh Acres, at a cost of nearly \$1 million.

Levels of Service (LOS)

The State's Growth Management Act (Chapter 163, Part II, F.S.) requires that counties establish levels of service for roadway facilities and a plan for ensuring that those levels of service are maintained. The Lee Plan states the County's commitment to maintaining specified levels of service, including a Level of Service E (LOS E) on County arterials and collectors. A key component of the Growth Management Act is the provision for "concurrency," which requires adequate services and facilities, including roadways, to be available concurrent with the impacts of development.



Today, thanks to a series of improvement projects that Lee County has undertaken during the past decade, most of the major roads in Lehigh Acres perform at or above the adopted LOS based on 2007 traffic counts (Figure 24). However, according to the link-by-link analysis that is used by the County, five (5) links of SR 82 (from Colonial Blvd. to Commerce Lakes Dr.; from Commerce Lakes Dr. to Gunnery Road; from Gunnery Road to Alabama Road; from Alabama Road to Alexander Bell Blvd; and from the latter to the Hendry County line) fail to meet the LOS standard. The State is in the process of conducting a PD & E study to widen SR 82 to six (6) lanes from Colonial Blvd. to the Hendry County line.

In the area immediately surrounding Lehigh Acres, two important roadway links (while meeting LOS today) have the potential to fail in the future. The first one is that segment of Buckingham Road between Orange River Blvd. and Palm Beach Boulevard; no improvements are planned for this road segment at this time. The second one is a segment of Daniels Parkway between Chamberlin Parkway and Gateway Boulevard. This segment is scheduled to be widened to six (6) lanes in 2012/13.

While Lee County and FDOT have undertaken substantial efforts (as evidenced in Figures 24 and 25) to maintain roadway Level of Service standards in and around Lehigh Acres, the community may be faced with significant mobility challenges in the future, when growth recurs. This is because—while the premise of concurrency is that adequate roadway facilities will be provided in order to achieve and maintain the adopted LOS standard, or, in their absence, development permits may not be issued—a majority of lands in Lehigh Acres (refer to Figure 9) are vested from the transportation concurrency provisions under a Stipulated Settlement Agreement (SSA) which Lee County and the developer of Lehigh Acres entered into in 1992. The 1992 SSA states that a Certificate of Concurrency exemption ("Certificate of Exemption"), issuable only to property identified as vested in the Agreement (per Figure 9), excuses the exempt property from compliance with the level of service standards set forth in the Concurrency Management Ordinance No. 89-33, as amended, (the "Concurrency Ordinance"). This means that permits could continue to be issued in Lehigh Acres for residential development on those lands that are vested for concurrency purposes, even if concurrency requirements are not met.

Figure 21: Transportation Network

Source: Lee County GIS

-  Highway/freeway
-  Arterial
-  Collector
-  Local

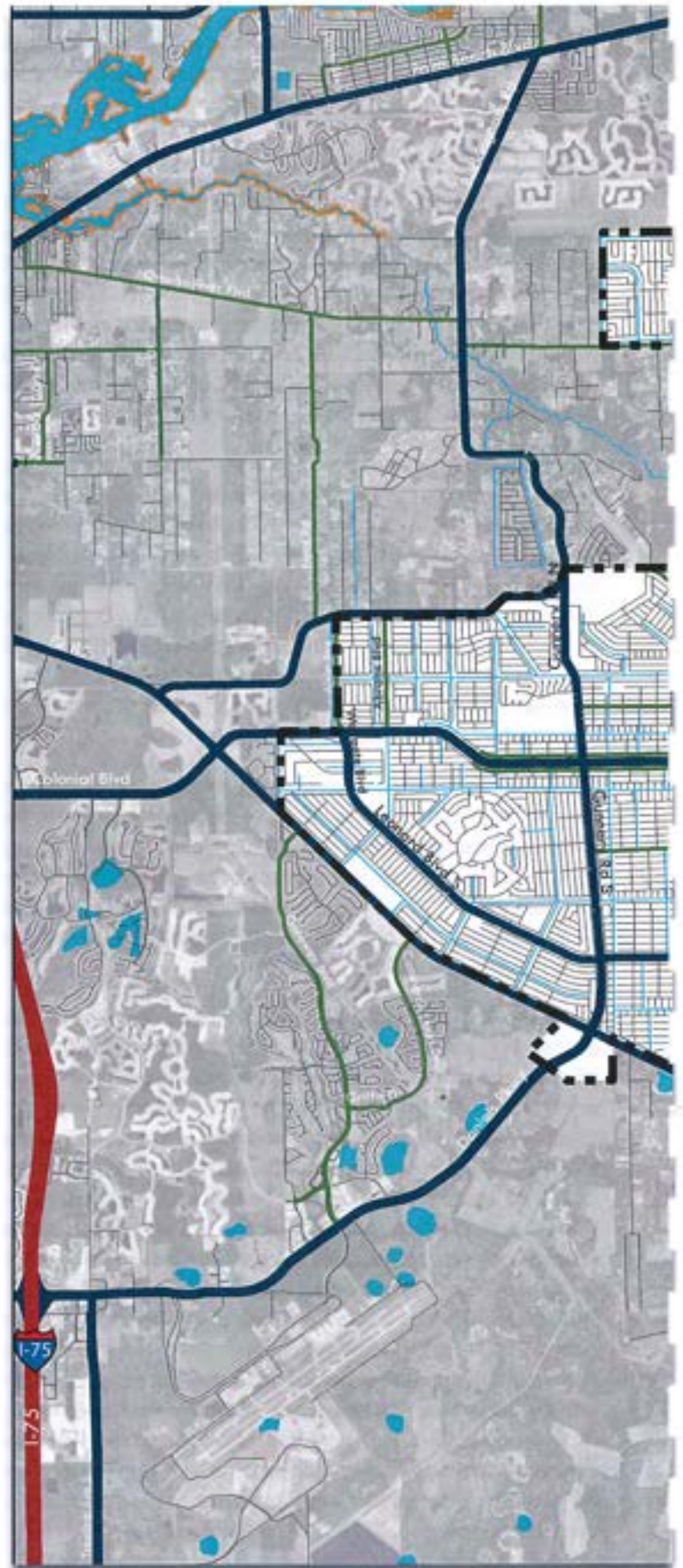
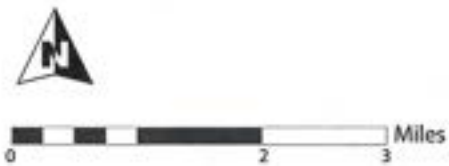
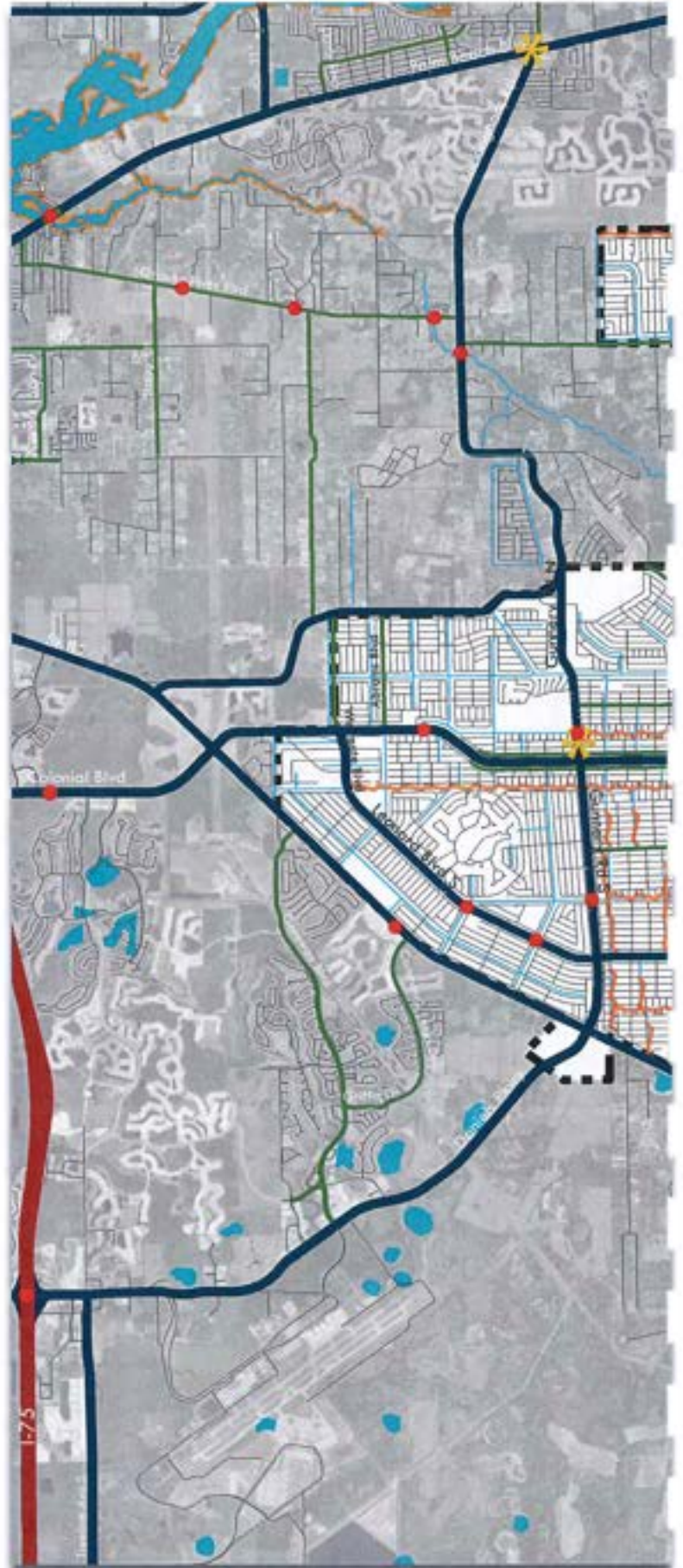


Figure 22: Connectivity and Safety Conditions

Source: Lee County GIS

-  Highway/freeway
-  Arterial
-  Collector
-  Local
-  Bridge
-  High crash sites
-  Network disconnects



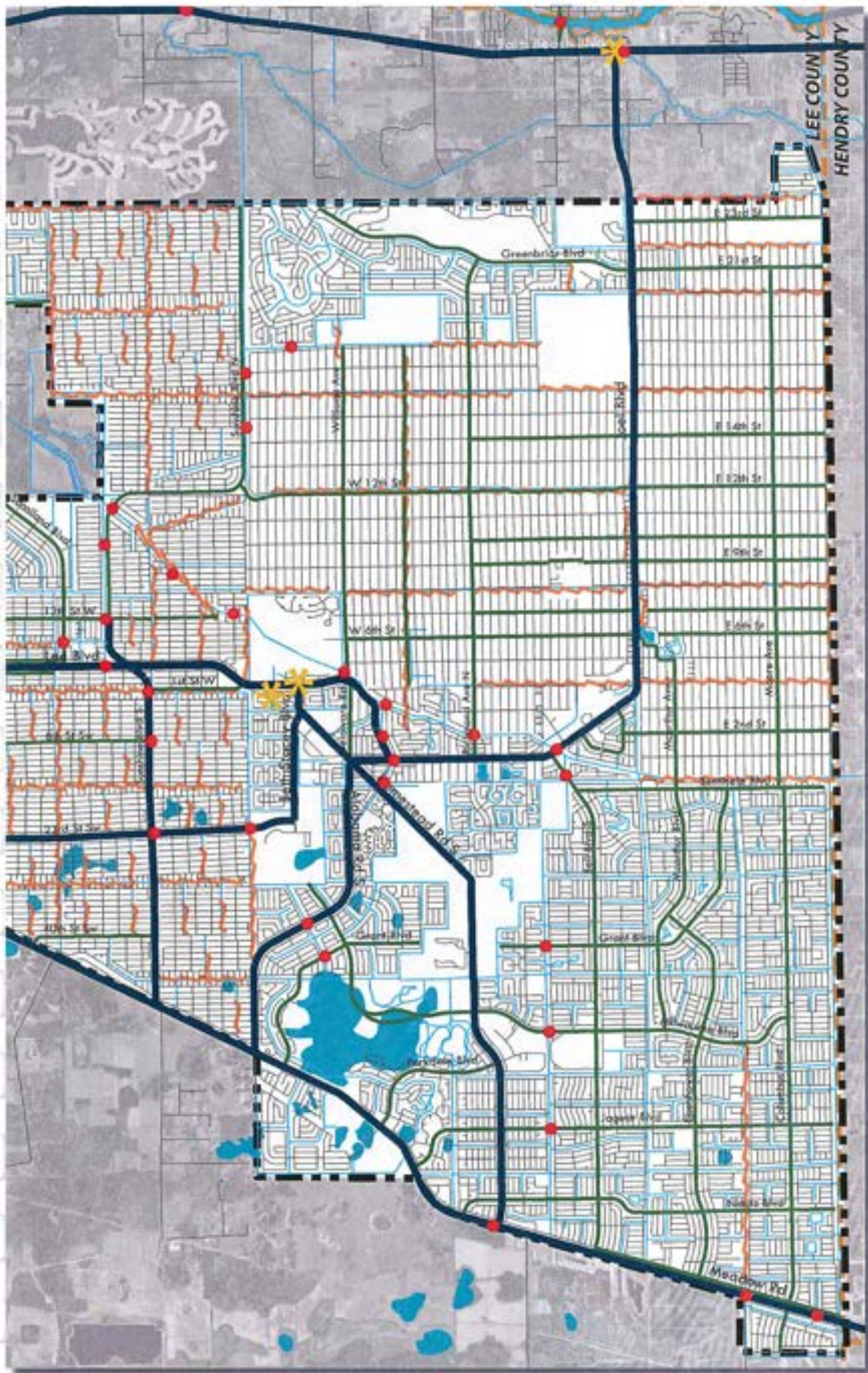
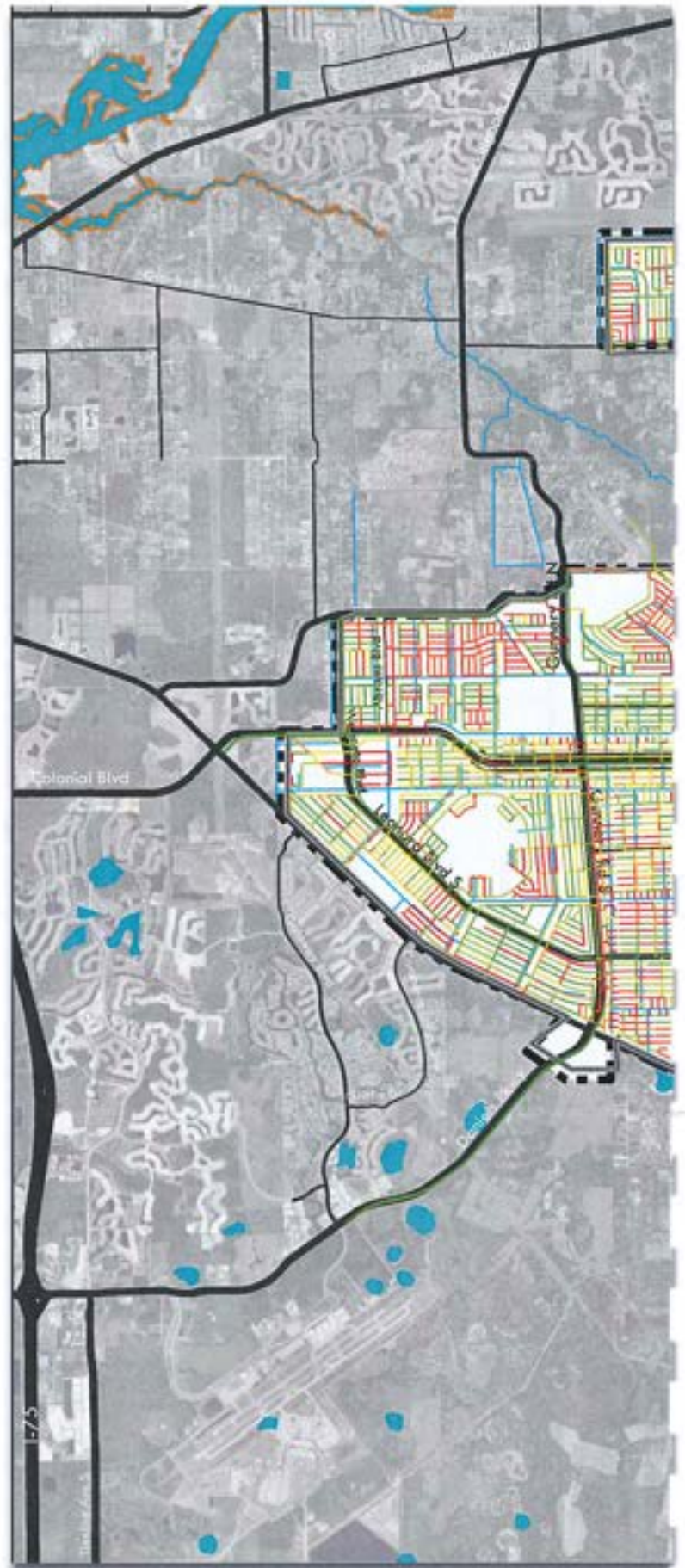


Figure 23: Road Condition Index (2006)

Source: Lee County DOT

- 0 - 25 Failing
- 25 - 50 Very Poor
- 50 - 60 Poor
- 60 - 70 Fair
- 70 - 80 Good
- 80 - 90 Very Good
- 90 - 100 Excellent



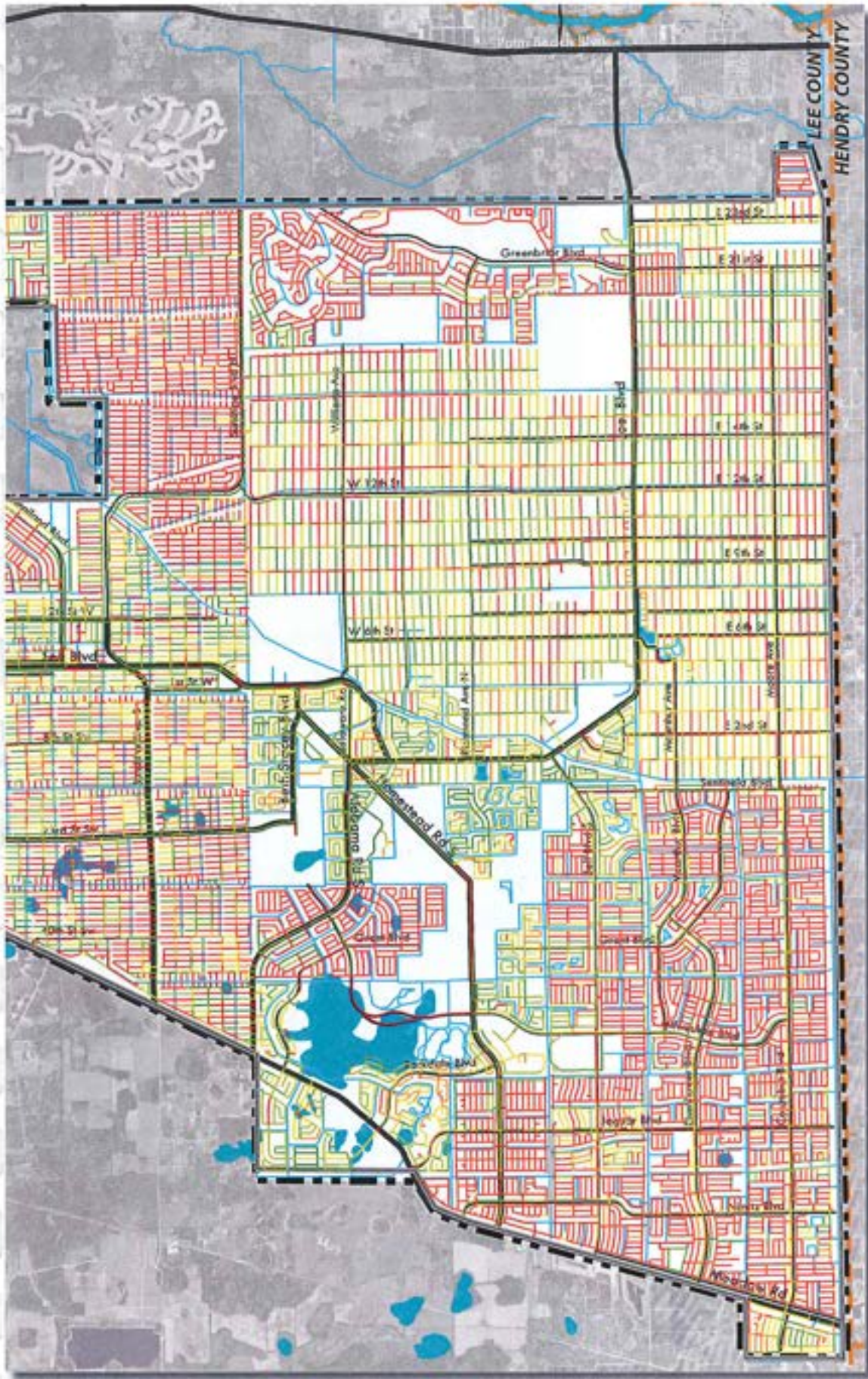


Figure 24: Road Level of Service (2008)

Source: Lee County 2008 Concurrency Report

- Performing better than LOS standard Standard (Est. 2008 100th Highest Hour)
- Performing at LOS standard Standard (Est. 2008 100th Highest Hour)
- Performing worse than LOS standard Standard (Est. 2008 100th Highest Hour)
- B)** Adopted Level of Service Standard (2007 100th Highest Hour)

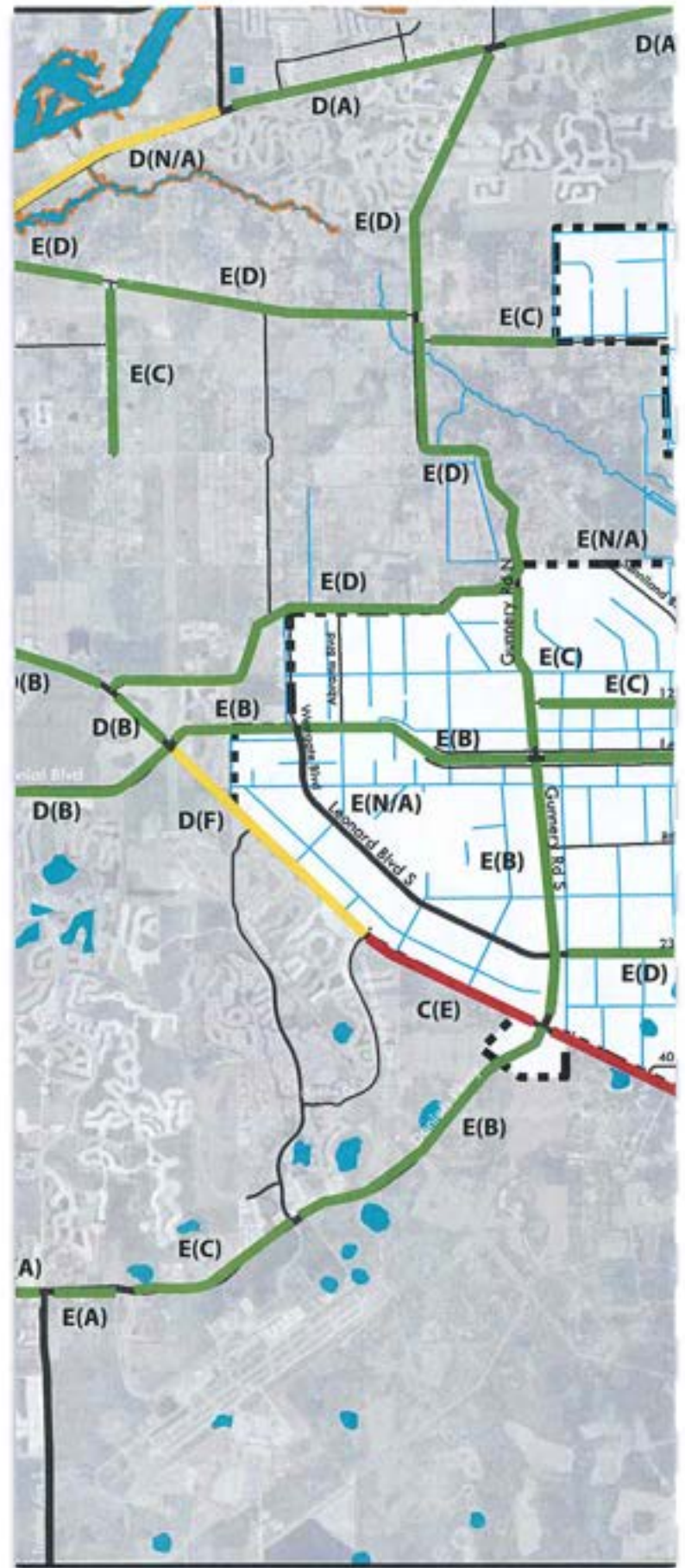


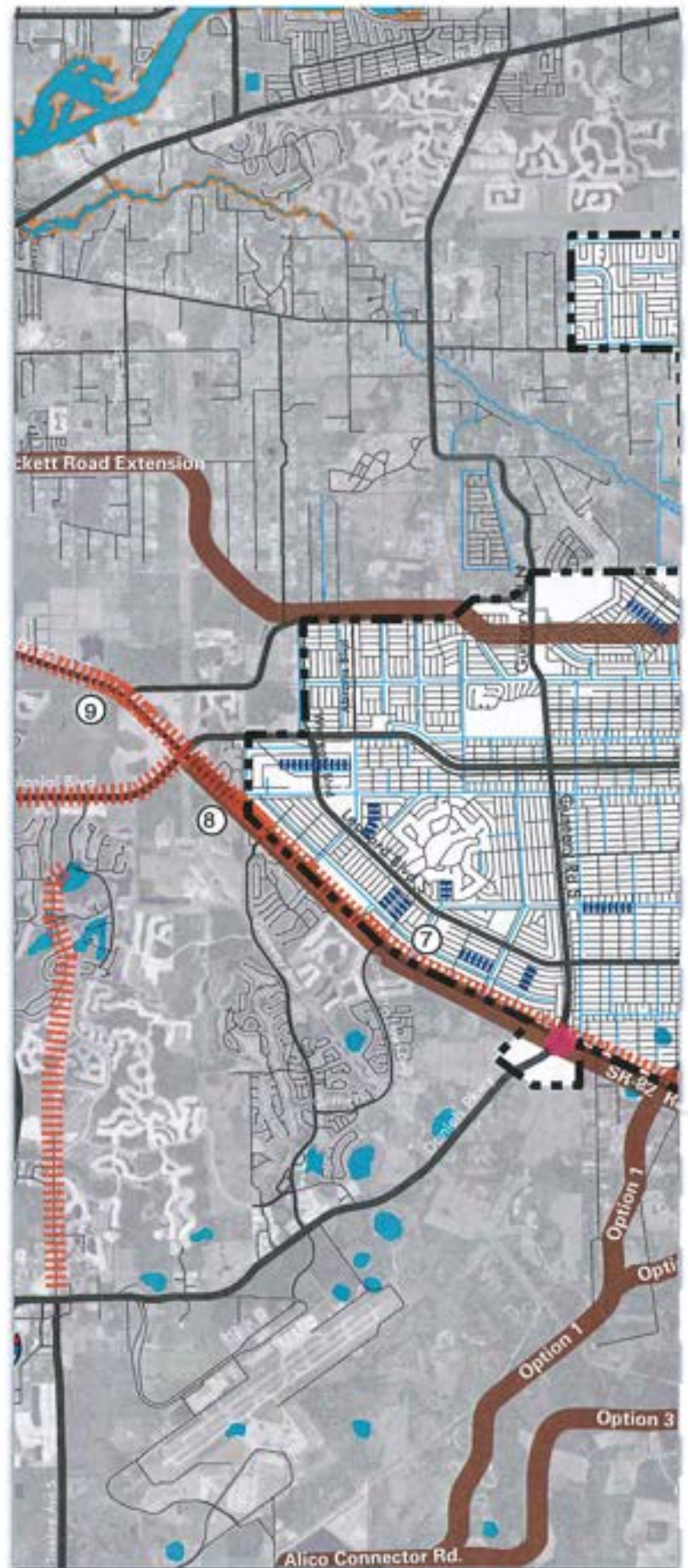
Figure 25: Planned Road Improvement Projects

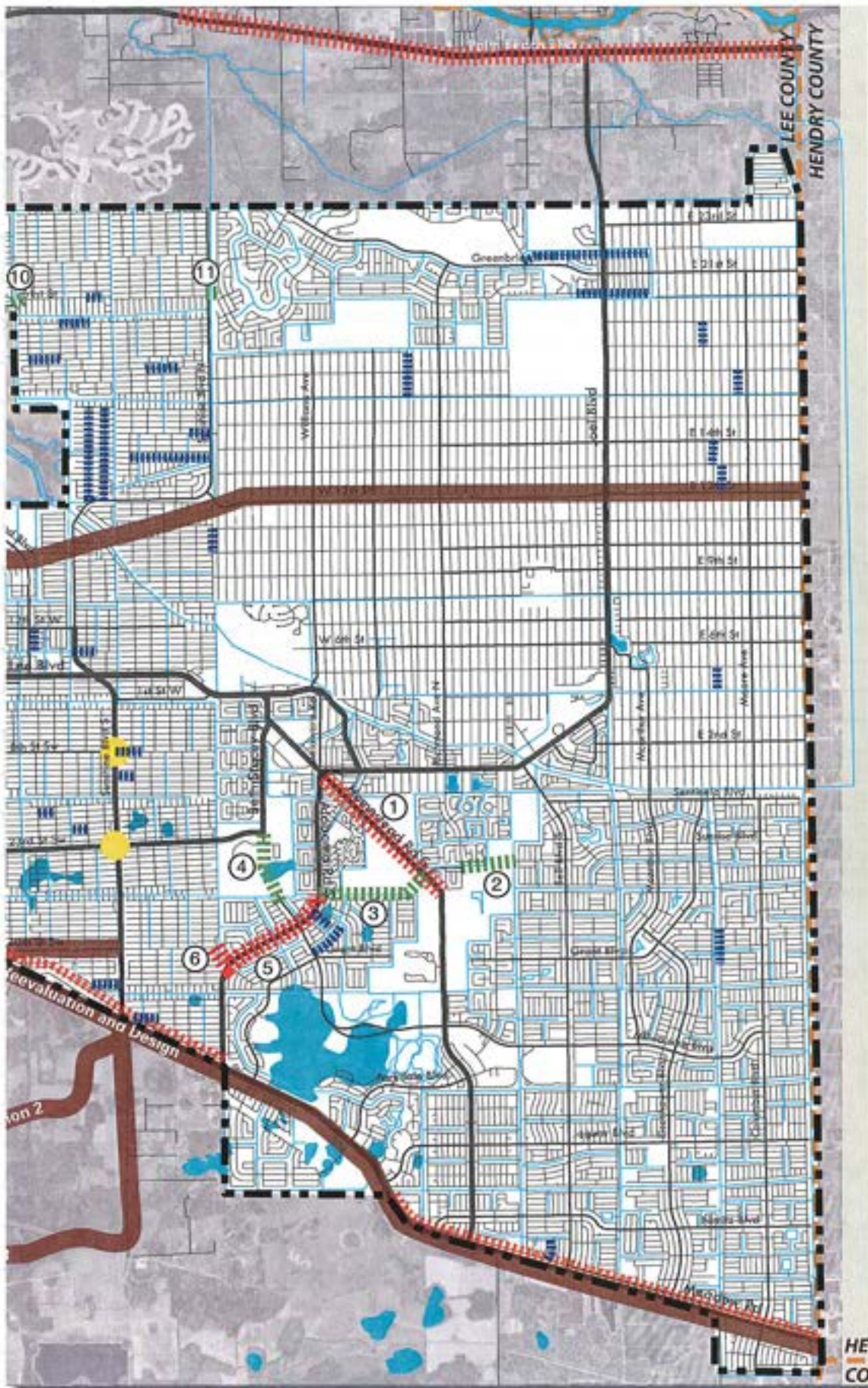
Source: Lee County MPO and Lee DOT

-  Road extension project (planned)
-  Road expansion project (planned)
-  Corridor study
-  Planned intersection improvement project
-  Lee County Resurfacing Roadway Improvements (2008)
-  Proposed Roundabouts

Planned Road Extension Projects

1. Homestead Rd. S
2. Sunrise Blvd - Richmond Ave. to Victoria Ave.
3. Sunrise Blvd - Alabama Rd. to Homestead Blvd.
4. Beth Stacey Blvd.
5. Alabama Road
6. SW 40th St.
7. Meadow Rd.
8. SR 82 - Lee Blvd to Commerce Lakes Dr.
9. SR 82 - I-75 to Lee Blvd.
10. 61st St W
11. Mento Ct.





The Agreement makes clear, however, that the lands vested for concurrency purposes are subject to all other local land development regulations adopted pursuant to the Lee Plan, as amended. The Agreement is also express that such regulations shall not affect the densities or intensities of use previously established in the Stipulation and Settlement Agreement dated December 27, 1988. It is also express that the lands that are not vested for concurrency purposes are subject to all other local land development regulations.

Road Improvement Projects

As shown in Figure 25, anticipated road improvements projects within Lehigh Acres include the programmed widening of Homestead Road, Meadow Road and SR 82, as well as a number of planned roadway extensions that will contribute to improved mobility by increasing connectivity. The projects, not including the Lockett Road extension, which is under study, are listed in the table below. While some of these projects are designated as cost feasible, others are contingent on available funding.

Road Name	Start	End	Work	State Date	End Date	Status
Homestead Rd S	Sunrise Blvd	Alabama Rd	2L to 4L	2009	2010	2008 CIP/DES
Meadow Rd	Wallace Rd	Naples Ave		2009	2010	2008 CIP/DES
SR 82	I-75	Lee Blvd	6L	2009	2010	2008 CIP/CST
SR 82	Lee Blvd	Commerce Lakes Dr	6L	2013	2014	2008 CIP/DES
61st St W	Cemetery @Stratton	Sunshine Blvd	2L (canal)			LRTP -Contingent
Mento Ct	Sunshine Blvd	61st St W	2L (canal)			LRTP-Contingent
SW 40th St	Current terminus	Alabama Rd	2L			LRTP-Feasible
Alabama Rd	SW 40th St Ext	Sunrise Blvd Ext	4L			LRTP-Feasible
Sunrise Blvd	Alabama Rd	Homestead Rd	2L			LRTP-Feasible
Sunrise Blvd	Richmond Ave	Victoria Ave	2L			LRTP-Contingent
Beth Stacey Blvd	SW 23rd St	Milwaukee Blvd	2L			LRTP-Feasible

Table 5: Planned Capital Improvements for Lehigh Acres Roadways

Corridor Studies

Lee County is conducting studies of several roadway corridors including: the CR 951 corridor (from Immokalee Road to Alico Road, and on to SR 82), jointly with Collier County; and the Lockett Road Corridor Extension (from Interstate 75 east to the Hendry County line). This latter project will provide an alternative to Lee Boulevard and SR 82 as an east-west arterial connection. The final alignment for the Lockett Road Corridor Extension is currently being determined.

The proposed CR 951 extension involves the evaluation of a potential new alignment for a four-lane arterial roadway with control and/or limited access, to be located east of Interstate 75 in northeast Collier County and southwest Lee County, Florida. The limits of the proposed extension are from the existing intersection of CR 951 and Immokalee Road in Collier County to a point along Alico Road in Lee County, a distance of approximately 15 miles and a project corridor 75 square miles in size. From there on, an extension referred

to as Alico Connector Road would connect to SR 82 somewhere southeast of Daniels Parkway. Three conceptual alignments were under consideration. At this point, a preferred alignment has been determined, but not adopted.

Access Management for Commercial Uses

Meadow Road, running parallel to SR 82, was designated as a viable access alternative for lots fronting SR 82, while minimizing individual lot access to the arterial. Pursuant to Lee Plan Policy 1.8.2, commercial uses can be permitted on all lots in the 'Reclaimed Strip Overlay' facing SR 82 when the required corridor access management plan is adopted by FDOT governing that portion of SR 82. The recently prepared plan provides for road connections between SR 82 and Meadow Road at about 1/8-mile spacing with full access median crossings at about 1/4-mile spacing. According to the plan, all platted lots will ultimately have access to SR 82 via Meadow Road, which will serve as a reverse frontage street. In fact, this arrangement is less than practical, since these lots are not only long and narrow—suited mostly to the commonplace shopping strip or stand-alone fast food joint, convenience store or gas station whose almost exclusive focus will be the drivers using SR 82, not the residents of Lehigh Acres; these lots also face and (when the reverse frontage access is in place) may push commercial traffic through the adjacent residential neighborhoods. Commercial uses are also permitted on Reclaimed Strip lots facing Gunnery Road after Lee County adopted a similar plan, with access to all lots being provided via Gretchen Avenue.

With the adoption of the SR 82 Corridor Access Management Plan, Lee County has been planning for the reconstruction of Meadow Road to accommodate the anticipated increase in traffic that would result from the future development pattern on lands located between this road and SR 82. The County's 2008 CIP update currently includes only funding for the design of this improvement from Wallace Road to Naples Avenue, to be completed by 2010. Pending the outcome of the Lehigh Acres Comprehensive Planning Study process, the focus of that project may change.

Alternative Transportation Modes

Today, Lehigh Acres features a poor infrastructure for alternative transportation modes. While sidewalks and bikepaths (mostly in the form of paved shoulders) do exist, they are fragmentary and infrequent at best, and therefore are inhospitable, offering limited protection or ability for the pedestrian or bicyclist, much less those who are physically challenged, to use these facilities as an effective means to move throughout the community. Nor do they connect residents from their homes to most major community destinations—shopping areas, schools, churches, parks, etc.

As may be expected, public sidewalks can be found primarily in the older or most developed sectors of Lehigh Acres, usually along the major arterials (e.g., Lee Blvd., Leeland Heights, portions of Homestead Road), as well as a few, short sidewalk segments on scattered subdivision roads. When provided, sidewalks are often found on one side of the street only.

Transit service to and within Lehigh Acres is similarly limited. Lee Tran, the County's public transit provider, offers one route (110) which runs between Edison Mall in Fort Myers and "downtown" Lehigh Acres (terminating on

Joel Blvd. at E. 12th Street) along Colonial Blvd/Lee Blvd. Lee County also provides transportation-disadvantaged and paratransit service through private or nonprofit contractors. These services are available to qualifying riders (e.g., seniors and the disabled).

Inside Lehigh Acres, Route 110 covers short segments on Beth Stacey Blvd., Alabama Road, Homestead Road, and Leeland Heights, and runs Monday through Saturday from 5:00 am to 9:45 pm. This provides an invaluable service to the residents of Lehigh Acres, but the limited coverage area, absence of Sunday service, and lack of supplementary linkages within the community represents a challenge to those without transportation alternatives. The County's 10-year Transit Development Plan proposes the implementation of a new service, the Lehigh Circulator, starting in 2009, and an increase in the frequency of Route 110 service (from every 75 to every 50 minutes by 2010, and down to every 40 minutes by 2014). It is unknown at this time if the current fiscal environment will delay or otherwise impact these plans.



Lee Tran public transit service

Source: Lee Tran

Regarding bicycle and pedestrian infrastructure improvements, the MPO's 2030 Long Range Transportation Plan includes a policy that encourages Lee County and its municipalities to "take advantage of every opportunity to implement the bicycle and pedestrian improvements identified as needed in the MPO's bicycle pedestrian element when approving development abutting state highways." The 2030 LRTP identifies specific projects that will serve Lehigh Acres and the regional network. Bicycle and pedestrian improvements are also called for in The Lee Plan and numerous such improvements are identified in the County's Bicycle/Pedestrian Inventory

and prioritized for funding through the Capital Improvement program, with recommendations provided by the Bicycle and Pedestrian Advisory Committee, which is made up of local residents. Consistent with these policies, the recent roadway improvement of Gunnery Road S. incorporates sidewalks. Other sidewalk projects are either under construction (along 12th Street W. between Gunnery Road and Sunshine Blvd.) or programmed through the CIP, while others (Homestead Road sidewalk from Milwaukee Blvd. to Veterans Park) have been put on hold due to budget constraints.

Although the County's Land Development Code includes detailed standards for the provision of sidewalks and bike paths in private development (new subdivisions, commercial and industrial development), Lehigh Acres residential areas do not benefit from these requirements, since the majority of the land in Lehigh Acres is already platted into single-family lots that are individually owned. Although lacking the ability to require individual owners to build the sidewalk (which would require even more stringent standards to ensure consistent quality of construction and continuity), two tools to overcome this challenge are already provided for in the Land Development Code. First, Sec. 27-61 authorizes the creation of municipal service taxing or benefit units in specific areas of unincorporated Lee County for the purposes of providing municipal services within the boundaries of said units in accordance with Chapter 125, F.S. One such taxing unit is already in place for the purpose of providing street lighting and related services in Lehigh Acres. A similar unit could be established to levy taxes for the construction of sidewalk projects and related improvements.

Similarly, Sec. 28-13 of the Land Development Code authorizes the imposition of special assessments "for the construction, reconstruction, repair, paving, repaving, hard-surfacing and re-hard-surfacing of roads, curbs, gutters, drainage facilities and **sidewalks** in any of the unincorporated area of said county, and provide for the payment of all or any part of the cost of any such improvements by levying and collecting special assessments from the abutting, adjoining, contiguous or other specially benefited property."

III.7 Infrastructure




Onsite Treatment and Disposal Systems

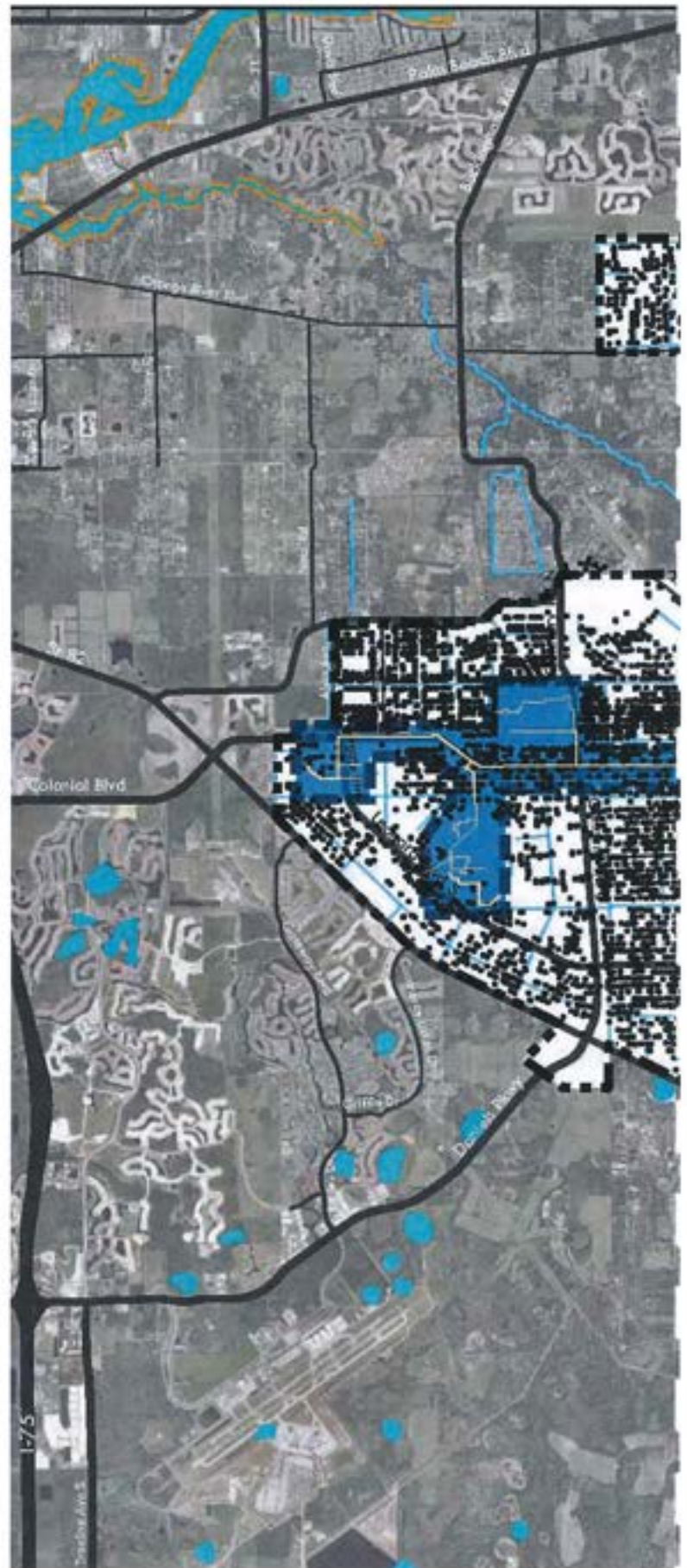
The Lee Health Department's records show issuance of approximately 21,000 on-site wastewater treatment systems in Lehigh Acres in the past decade—this despite the fact that most lots in the community do not meet current size standards for the accommodation of on-site treatment and disposal systems (OSTDS). In addition, the high water table in the area typically necessitates the placement of fill material to increase the lot elevation and accommodate the construction and proper design of an OSTDS. In most cases, only the developed portion of the lot is filled, resulting in an unusual landscape of "mounds" and "valleys" (between lots).

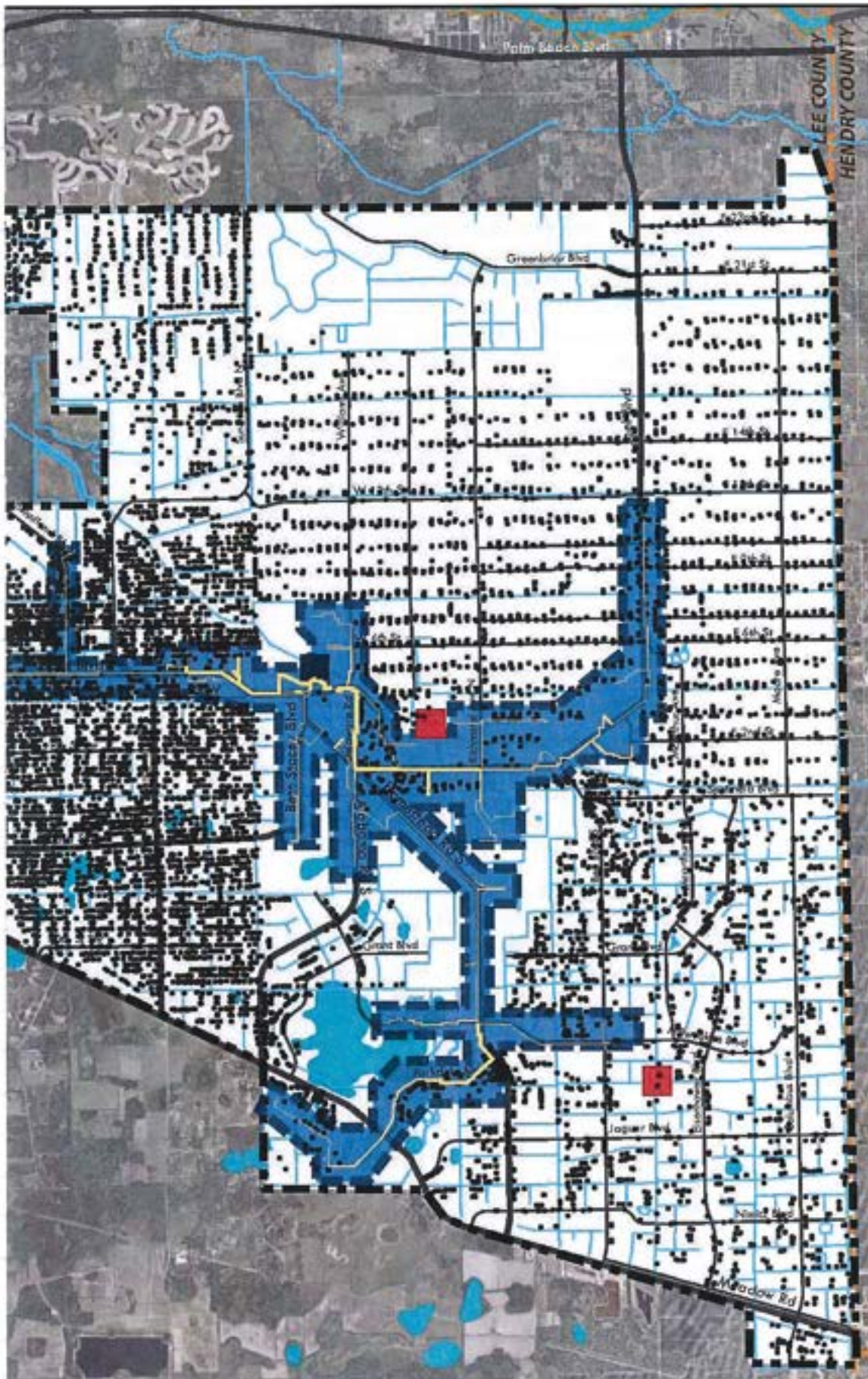
Back when Lehigh Acres was platted in the 1950s and 1960s, the Health Department's regulations required a minimum $\frac{1}{4}$ -acre lot size for onsite septic permitting. Today, the minimum lot size requirement today is $\frac{1}{2}$ -acre. However, the regulations also stipulate that lots as small as $\frac{1}{4}$ -acre, platted prior

Figure 26: On-site treatment and disposal systems (OSTDS)

Source: Lee Health Department

- Septic tanks
-  Areas serviced by sewer
-  Sewer pipe system
- 





to 1972, are allowed to develop on septic. A permit for a septic system does not restrict the number of septic tanks on a single lot, so long as, on a lot with a well, the total sewage flow does not exceed 1500 gal/day/acre. Because a permit applicant can count unused road right-of-way in the calculation of lot size, a 1/4 acre lot is typically permitted between 350 and 400 gal/day; this restricts a single-family unit to three bedrooms. Despite this rule of thumb, in reality, several duplex lots contain two septic systems and are advertised as three bedrooms each (equating to six bedrooms on a single lot). According to the Health Department, this can occur, in part, because duplex units are often officially recorded on the books as having only two bedrooms (by having the third room without a close, this room does not qualify as a "bedroom"). In practice, these homes are occupied as three-bedroom units, and therefore exceed their permitted flow. Thus many properties have either been illegally subdivided or granted permits without penalty unbeknownst to the Department issuing the permit.

For lots platted after 1972 that do not meet the 1/2-acre size, a variance can be applied for through the State Variance Board. As reported by Health Department representatives, variance applications submitted on the basis of hardship are commonly granted. Recent data provided by the Lee Health Department indicates that 344 variances were requested for properties in Lehigh Acres in the past two years. Of these, only four were denied (typically for not being able to meet the 75-foot required separation between septic and water well). Two others were withdrawn by the applicants. Of those variances granted, 55 will require tie-in to the public sewer if and when made available. Only three of the requests were for aerobic systems, which offer higher removal rates than other types.

The Health Department maintains that there is little documented evidence to date that the issuance of septic systems is a problem in Lehigh Acres. However, the Department also acknowledges that permits are reviewed on an individual basis, and that there is no system in place to track cumulative effects.

Research conducted for other areas in Florida suggests that soils most effective at removing nitrogen are those which—like the ones present in Lehigh Acres—have shallow water tables and associated high organic content. However, these same studies recognize that the removal rate varies widely from over 90% to less than 10%, even using today's system design criteria. Properly maintaining the function of existing OSTDS helps, but this will work for only a limited amount of time. While the average density in Lehigh Acres today is less than one dwelling unit per acre, if development continues in the current pattern, this density could increase to an average of approximately 2.7 dwelling units per acre at buildout (with significantly higher densities in localized instances). If no significant expansion of the centralized sewer were to occur, there could be tens of thousands of additional OSTDS in Lehigh Acres over the 20 to 40 years. In addition, septic systems have a finite capacity to retain phosphorus.

Several studies conducted around the country have employed measurements and/or modeling to demonstrate a positive correlation between OSTDS density and water contamination. For example, a paper by Professors R.B. Brown and T.J. Bicki for the University of Florida's Institute of Food

And Agricultural Sciences, Florida Cooperative Extension Service concludes that "population density ultimately determines the effluent load per unit of land area and hence the concentration of contaminants in ground water." A water budget prepared for an individual 0.4-acre lot in the area of Gainesville showed that, at the lot by lot scale, an OSTDS contributed nearly 60 percent (12 inches/year) of the total recharge to the shallow aquifer. A number of other studies recommend that, to prevent degradation of shallow ground water, OSTDS densities should be kept at a density of no less than 0.5 to 1 acre per OSTDS (2 to 1 OSTDS per acre), and preferably greater.

Nevertheless, it is acknowledged that these studies were conducted mostly in conditions different from those in Florida and Lehigh Acres. Site-specific research will be necessary to determine if or when, and what types of action may be required. Anecdotal information has been received of algae being found in the Orange River that may indicate the presence of nutrient enrichment from septic plumes. Ongoing studies conducted on behalf of the ECWCD, in collaboration with Lee County, to monitor water quality in Lehigh Acres and the Orange River, may confirm this in the future.

Private Water Wells

There are nearly 22,000 water wells in Lehigh Acres, including those for domestic consumption, irrigation, fire suppression, public use, etc. Purportedly, some well permits may have started to be denied in Lehigh Acres because of spacing issues, i.e., the inability to meet a State of Florida requirement for a 75-foot distance between wells and septic tanks. In addition, it is reported that water wells in some areas of Lehigh Acres are failing. Emergency permits for well deepening are becoming more common, as the Sandstone Aquifer in Lehigh Acres shows a declining water level trend and seasonal water level fluctuations that now average nearly 20 feet. Section 6.10 of the County's Well Ordinance (Cause for denial, suspension or revocation) indicates that extreme depletion of the groundwater supply in Lee County, and endangering the health, welfare, and safety of the public are grounds for denial of a well permit.

Centralized Water and Sewer Service

Public water and sewer are provided to portions of Lehigh Acres by the Florida Governmental Utility Authority (FGUA), a government agency created to purchase private utility companies and convey them to a local government agency to own, operate and maintain. FGUA purchased the Lehigh Acres utility in 2003 for \$34.5 million. While, technically, the service area of FGUA covers the entire extent of Lehigh Acres, only about 8,700 acres—or 14 percent of the total land, primarily in the older community core—are served by central water and sewer (see Figure 28). FGUA's 2008 budget estimates 13,064 water customers and 10,500 wastewater customers for this year, an increase of nearly 4 percent over 2007. By 2012, the number of accounts is projected to grow to 17,443 and 13,006, respectively. This includes both residential and commercial accounts, and is contingent on the completion of proposed infrastructure improvements.

The current water system consists of one water treatment plant and 13 water wells. The Lee Plan Policy 53.1.2 establishes a Level of Service of 250 gallons per day per equivalent residential connection, with slightly lower stan-



Figure 27: Water Wells

Source: Lee County GIS

-  Domestic
-  Irrigation and farming
-  Fire
-  Public water supply
-  Other
-  Areas serviced by water
-  Water treatment plant

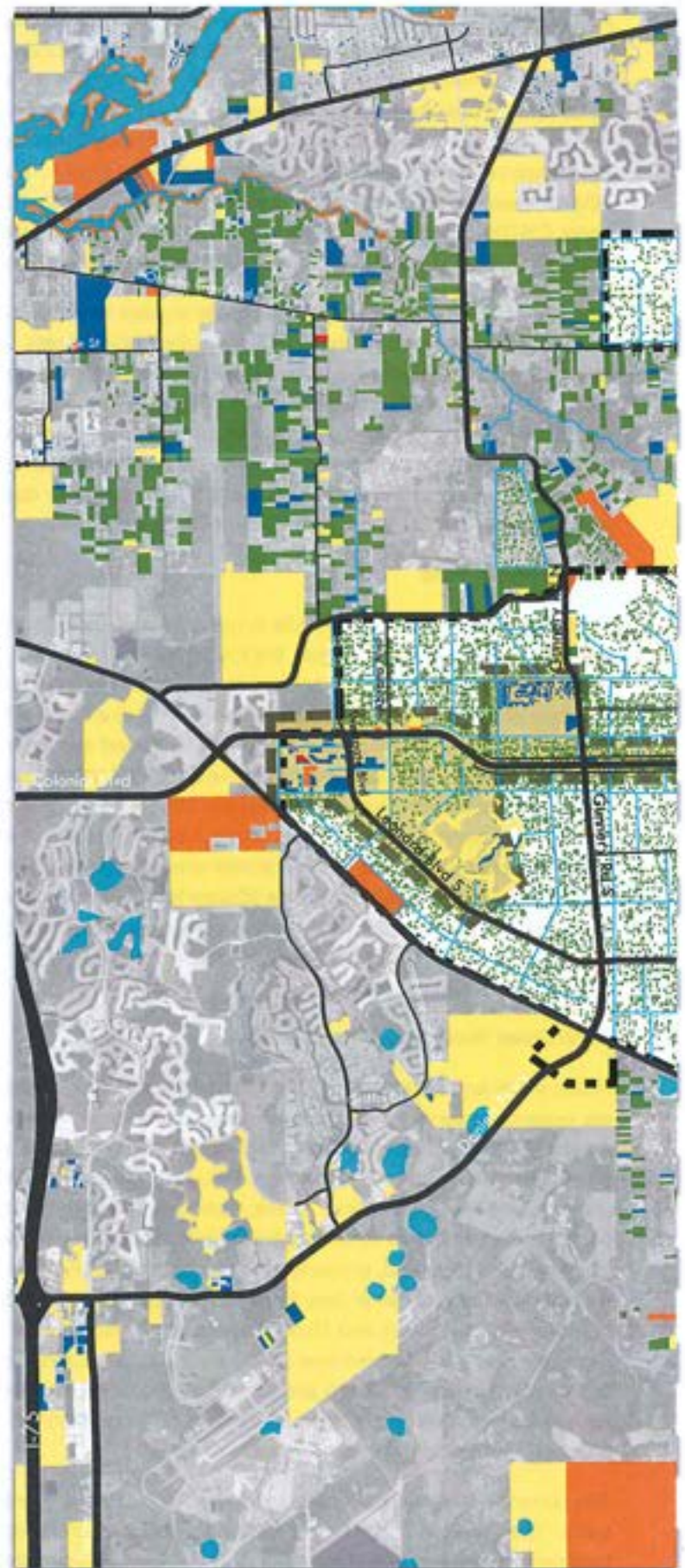



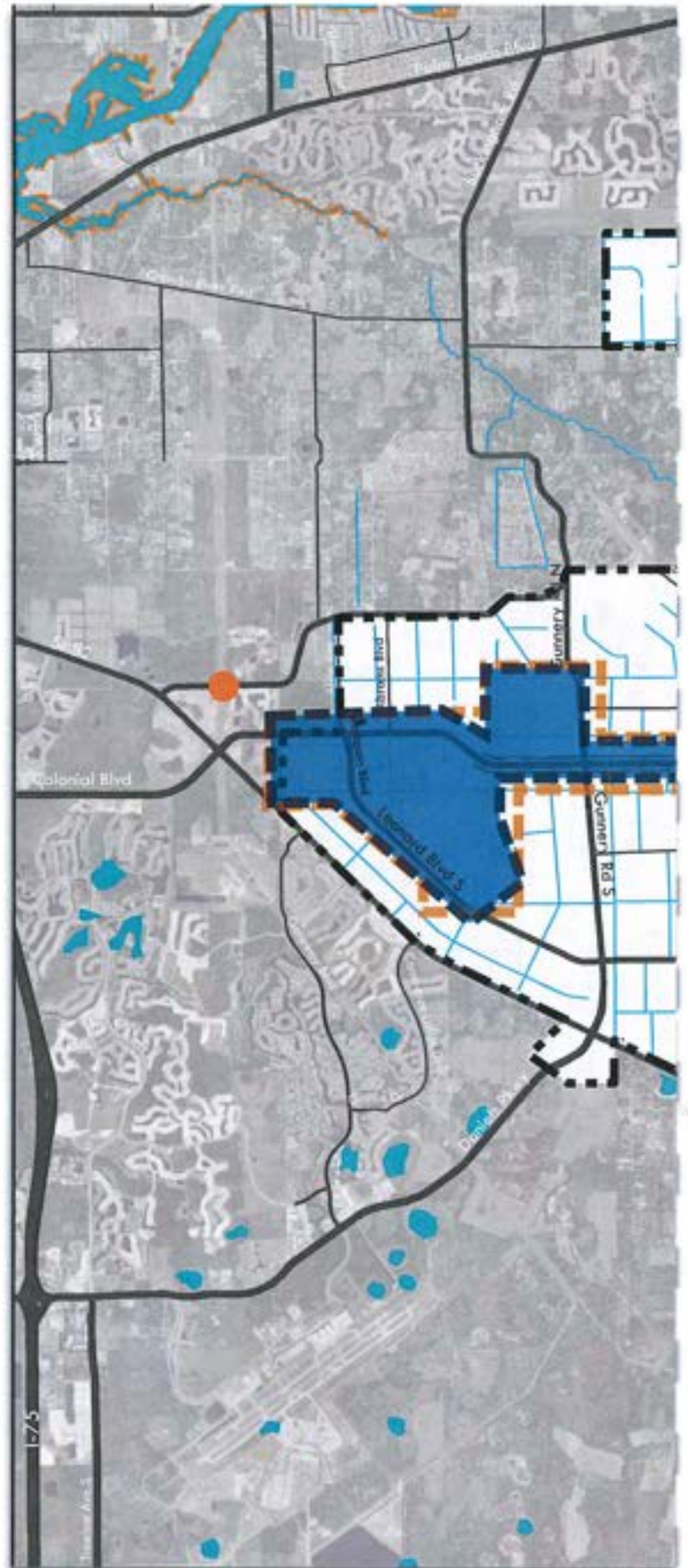


Figure 28: Water & Sewer

Source: FGUA

-  Combined Water & Sewer Service Area
-  Water Coverage Area
-  Water plant
-  Wastewater treatment plant
-  Lee County Resource Recovery and Recycling Facility



dards for mobile homes (187.5 gallons per day), and travel trailer residential structures (150 gallons per day).

While the system has been growing and FGUA continues to make significant investments in water capacity and line expansion, the system has trailed consumptive water demand during the years of high growth rates. The current slowdown offers an opportunity for planning and proactive intervention. FGUA plans to update its Potable Water Master Plan this year, and has allocated over \$50 million in the FY 2008 Capital Budget for a total of thirty capital improvement projects in Lehigh Acres. Projects include: water treatment plant improvements, fire hydrant replacement, infiltration and inflow improvements, reuse pipeline expansions, lift station renovations and telemetry upgrades, wastewater treatment plant expansion, force main expansions, and manhole rehabilitation.

Recent projects include construction of the new Lehigh Acres Water Treatment Plant and associated wells at the Mirror Lakes site, which was completed in February 2008. Expansion of the Mirror Lakes Water Treatment Plant is estimated to begin in late 2008. This expansion will lay the foundation for a state-of-the-art Reverse Osmosis Treatment Plant. Construction of the deep injection well was slated for completion in April 2008. In addition, construction of a Ft. Myers interconnect was completed in 2007, including some 11,500 linear feet of pipeline that provides an on-demand, two-way connection between the Lehigh Acres System and the City of Ft. Myer's water supply.

The sewer network is less extensive than the potable water network. In 2003, FGUA estimated that wastewater treatment capacity would be adequate through 2008 based on a Lee Plan Level of Service standard of 200 gallons per day per equivalent residential connection, 150 gallons per day for mobile homes, and 120 gallons per day for travel trailer residential structures (Policy 56.1.2). However, population growth outpaced projections and in 2005 the wastewater treatment plant exceeded its permitted flow capacity. That same year, the utility announced a \$56 million expansion which would have provided water and sewer lines to more than 4,000 lots in Lehigh Acres. Controversy surrounded the plan, and FGUA reconsidered. FGUA now estimates spending approximately \$26,000,000 on improvements and capacity expansion of the sewer system.

FGUA's FY 2008-2012 Capital Plan includes approximately \$92 million to complete thirty-eight capital projects necessary to keep up with projected growth in Lehigh Acres. This Five Year Plan was revised at the request of Lee County, to integrate strategies and costs associated with implementing a septic tank replacement program. The results of the study, prepared by FGUA's consultants in collaboration with the County's Utilities and Natural Resources Department, envisions a major expansion of the wastewater collection, treatment and disposal system over the next five years. The plan was developed to ensure that current and future residents of Lehigh Acres are able to access dependable and safe water, minimizing contamination to ground and surface water. In Phase 1, FGUA would extend service connections to existing non-service houses and implement an aggressive program to reduce the negative impact to the waste water treatment plant available capacity. During Phase 2, FGUA would continue to extend water lines to

residents in the service area, and also convert septic tanks by mandatory hookups to the proposed wastewater lines. Last, FGUA would “reach out” to areas not contiguous to the current infrastructure and develop a task force of affected governmental entities.

Over the next five years, FGUA's proposed water and sewer projects could reach as many as 12,000 properties, including many lots within the central service area that continue to rely on pre-existing septic tanks and private water wells. While this is a significant step, the majority of new structures being built each year in Lehigh Acres are still dependent on well and septic for their water and sewage disposal. Further, the probability of implementing FGUA's plan remains uncertain, partly because no consensus exists regarding the current magnitude of the water and sewer system capacity problem, and opposition to rate increases and connection fees may be forceful. Of the 33,720 total water wells in Lee County, approximately 62 percent are in Lehigh Acres.

Lee County continues to consider the feasibility of acquiring the utility water and sewer system. The East County Water Control District's Board of Supervisors also recently attempted to have its authority expanded so that the District could consider purchasing and operating the utility.

Stormwater Management

The East County Water Control District (ECWCD) was created in 1958. It encompasses over 63,000 acres of land and approximately 356 miles of canals (Figure 29). ECWCD is a political subdivision of the State of Florida and is funded through the collection of an acreage tax. The primary function of the ECWCD is to ensure the proper conservation and management of water resources located within the district, which encompasses all of Lehigh Acres.

The District is charged with providing the quantity and quality of surface and sub-surface water resources to the current and future residents of Lehigh Acres. As such, it is responsible for both the discharge and recharge of water resources within its jurisdictional boundaries to maintain a balance between flood control and conservation. ECWCD maintains a network of canals, water control devices, structures, and systems, including natural ecosystems that improve water quality, and provide a viable habitat for wildlife and recreational opportunities for Lehigh Acres.

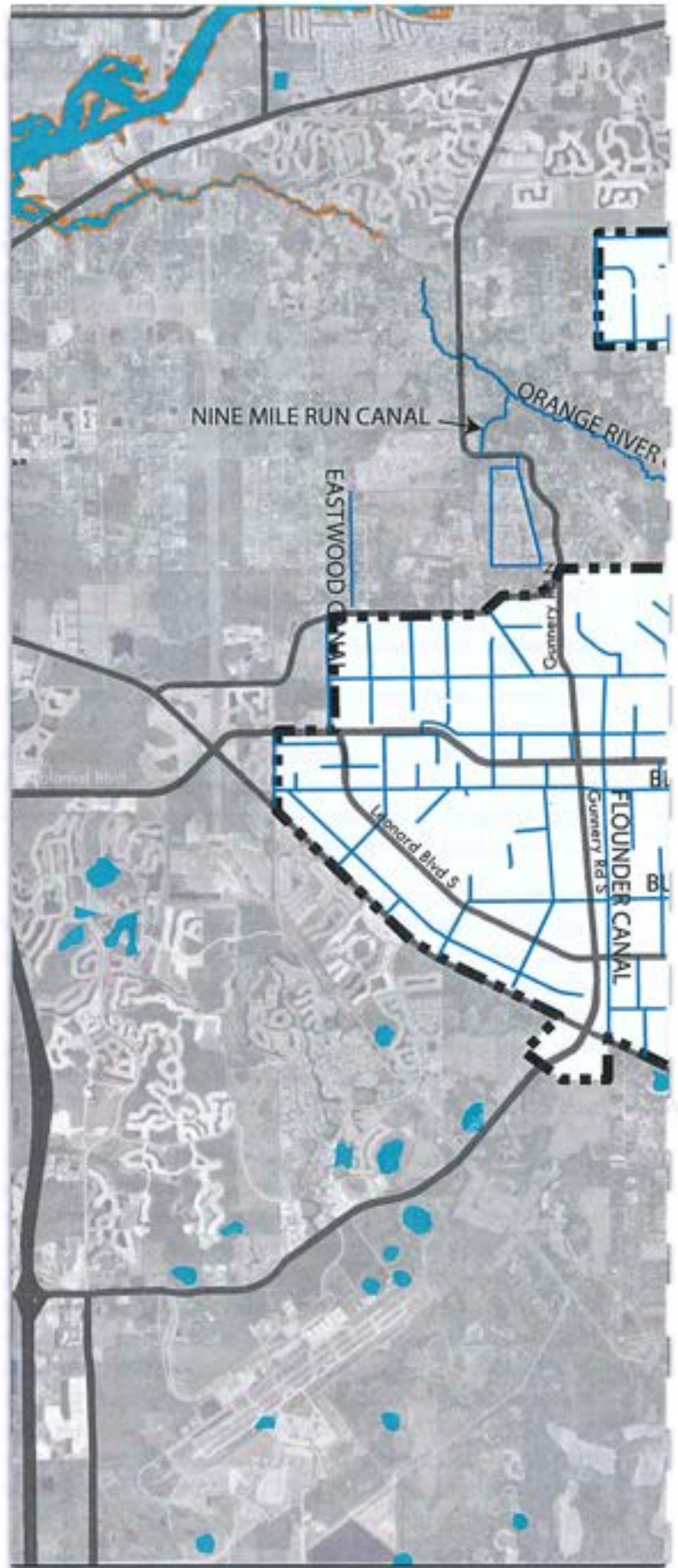
The ECWCD's drainage network consists of 589 canals. Under existing conditions—i.e., low-density development scattered among large areas of vacant land—small rainfall events produce little runoff because much of the rainfall infiltrates the ground and does not show up as runoff. However, modeling conducted by the ECWCD for the preparation of a Comprehensive Water Resources Plan indicates that in a full build-out scenario, in which 30% of the development is assumed to be high density and the rest medium density, flows will increase by approximately 100%. The frequency of peak events will increase dramatically as well as the magnitude of runoff response to small storms. The full build-out scenario projections for the peak flow are 70% higher than the existing conditions and storage of extra runoff volume is expected to require some 3,700 additional acres of detention ponds with

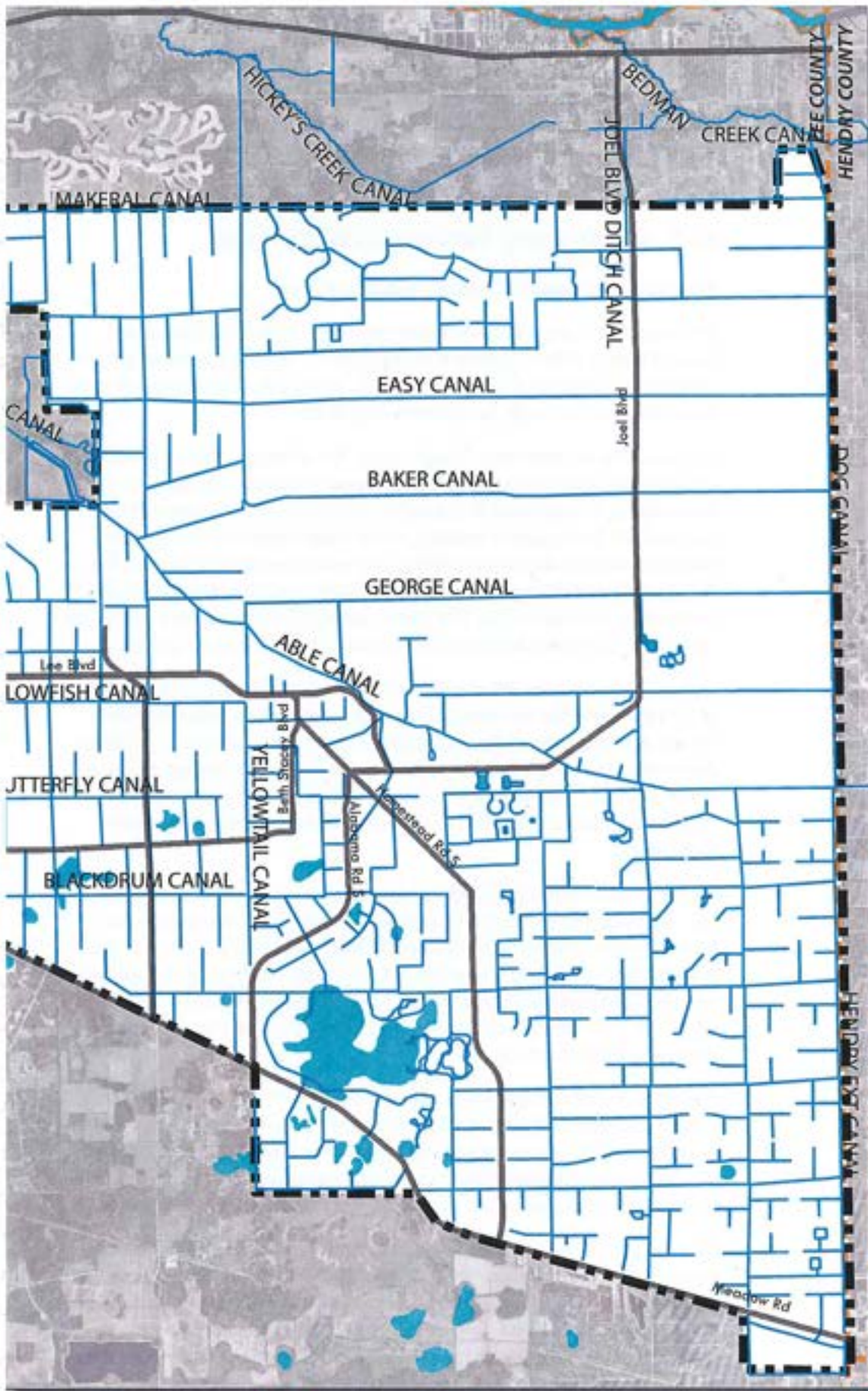


Figure 29: Drainage Network

Source: Lee County and ECWCD GIS

— Canals





water stored 4 feet deep. Under this scenario, drinking water supplies currently met by individual wells are projected to fail throughout Lehigh Acres. Baseflows will become even lower than they are today, and water quality is expected to deteriorate. To improve conditions, the studies recommend modifications to many existing inflow and outflow structures to increase storage and safe conveyance of runoff from a once-in-100-year rainfall event.

III.8 Community Services and Facilities

Emergency Response Services – Fire and Police

The majority of Lehigh Acres is within the Lehigh Acres Fire Control and Rescue District of the County's Fire Department, which is bounded by I-75 on the west, Charlotte County on the north, Hendry County on the east and township range 46 south, to the south (Figure 30).

There are five fire stations in Lehigh Acres. Two of these—one at Milwaukee and Bell, the other one on Sunshine Boulevard—are new stations, completed within the past year, financed by impact fees. The Department has outgrown its headquarters building, which is too small to accommodate the increasing administrative, training, and public meeting demands. The Department is exploring expansion and relocation options and has begun researching candidate sites. The District is looking westward for a new building site off of Leonard Boulevard in an area of rapid residential growth.

Currently, underserved areas include the northeast and northwest quadrants of Lehigh Acres. The two newly constructed stations now serve the south-central area and parts of the southeast quadrant. The northern tip of Lehigh Acres will continue to lag in fire protection services. The average response times to locations in this area are now close to seven minutes. This has a significant impact on homeowner insurance ratings for homes located in these areas.

This is compounded by the fact that the majority of Lehigh Acres is considered as a high to extreme fire-hazard area (Figure 31). In the dry season, brush fires are common and can quickly get out of control. Lacking water service lines, combating fires in the outlying areas is difficult. In the wet season, the Fire Department draws water from the nearby canals like the Able canal, but in the dry season the units must carry their own water to these remote, isolated locations.

For law and order, Lehigh Acres relies on the Sheriff's Office. The Bravo District (formerly East District) extends beyond the immediate Lehigh Acres area (Figure 32). Due to the population growth in Lehigh Acres, the size of this district was adjusted from its previous jurisdictional area to make it more manageable. The police monitor crime by four zones: B2, B3, B4, and B5.

Over the past 10 years, Lehigh Acres residents have expressed a growing concern related to public safety in connection with increases in criminal activity. With a limited force to cover both a large, developing area, burglary in new, unoccupied homes and construction sites has become common, as are drug-related activities. Criminal activity is facilitated by the fact that the

residential units are very dispersed in some sectors of the community.

Parks and Recreation

There are several important parks and recreational facilities in and around Lehigh Acres (Figure 33). Two community parks are located within Lehigh Acres. The first one is Veterans Park, which is located on Homestead Road. The park encompasses a lake, pavilion, playground, picnic areas, a 38,000 square-foot recreation center, lighted adult softball fields, two covered lighted basketball courts, four lighted tennis courts and splash playground. The recreation center offers many recreational programs. On this property, Lee County Parks and Recreation joined with Lee County School Board to build a kindergarten through 8th grade school with a recreation facility. The other community park is Lehigh Acres Community Park. This 20-acre park was donated by the Lehigh Corporation in 1976. It has playgrounds, sport fields, a community pool and pavilion.

Local schools, through interlocal agreement, also provide active recreation



Veterans Park Rec Center



Lehigh Community Park

opportunities to Lehigh Acres residents. These include soccer fields at Lehigh Acres and Varsity Lakes Middle Schools (the latter on a limited basis), and track and playfields at the Lehigh Acres High School. Five 18-hole public golf courses provide another recreation facet for the community.

There are several other parks located in the area serving portions of Lehigh Acres. The 135-acre Buckingham Community Park opened in 2002 with sports fields, picnic areas, playgrounds and trails. Gateway Community Park has sport fields on a 31-acre parcel, and Charleston Park, a 4-acre facility located in the Alva community north of Lehigh Acres, contains outdoor activity areas, basketball courts and a pavilion. Two new park facilities are planned over the next five years. The first is the conversion of 14 acres of the former Admiral Golf Course; the second will be built on a 29-acre site on Joel Blvd., but which falls outside of Lehigh Acres, within the East Fort Myers/Alva Benefit District.

While Lehigh Acres is well served today by regional and community parks on a level-of-service basis (i.e., standard of 62.5 acres per 1,000 persons), the County's 2008 Concurrency Report indicates that the Lehigh/East Lee County District has not meet the "desired" standard since 2007, and will not meet it through 2012—even with the addition of the planned facility.

Figure 30: Fire Districts and Facilities

Source: Lee Fire Department

-  Lehigh Acres
-  Fort Myers Shores
-  Alva
-  Tice
-  Bayshore
-  Fort Myers
-  South Trail
-  SW Florida Regional
-  Existing fire station
-  Future fire station (currently being built)
-  Existing station
-  Future station



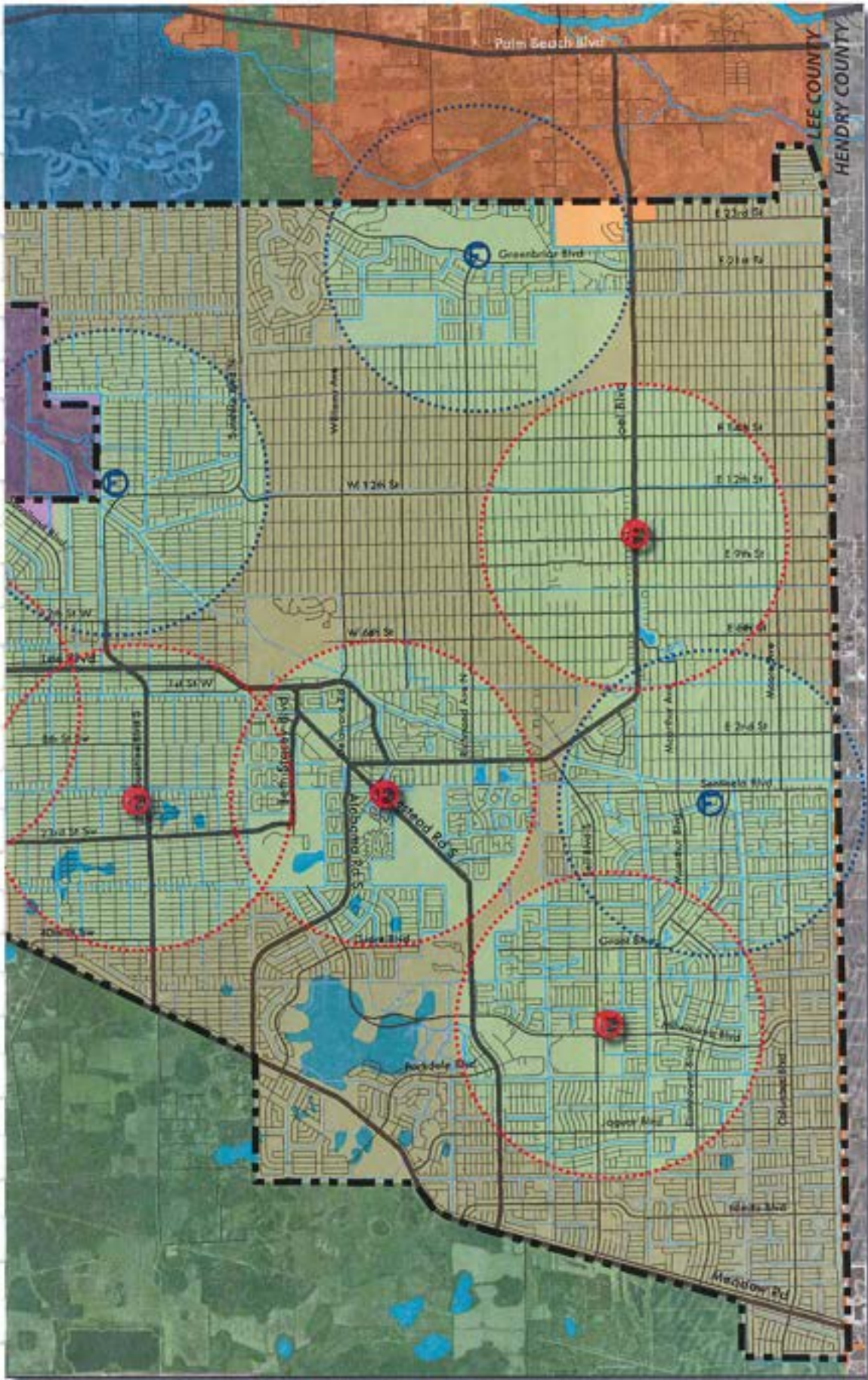
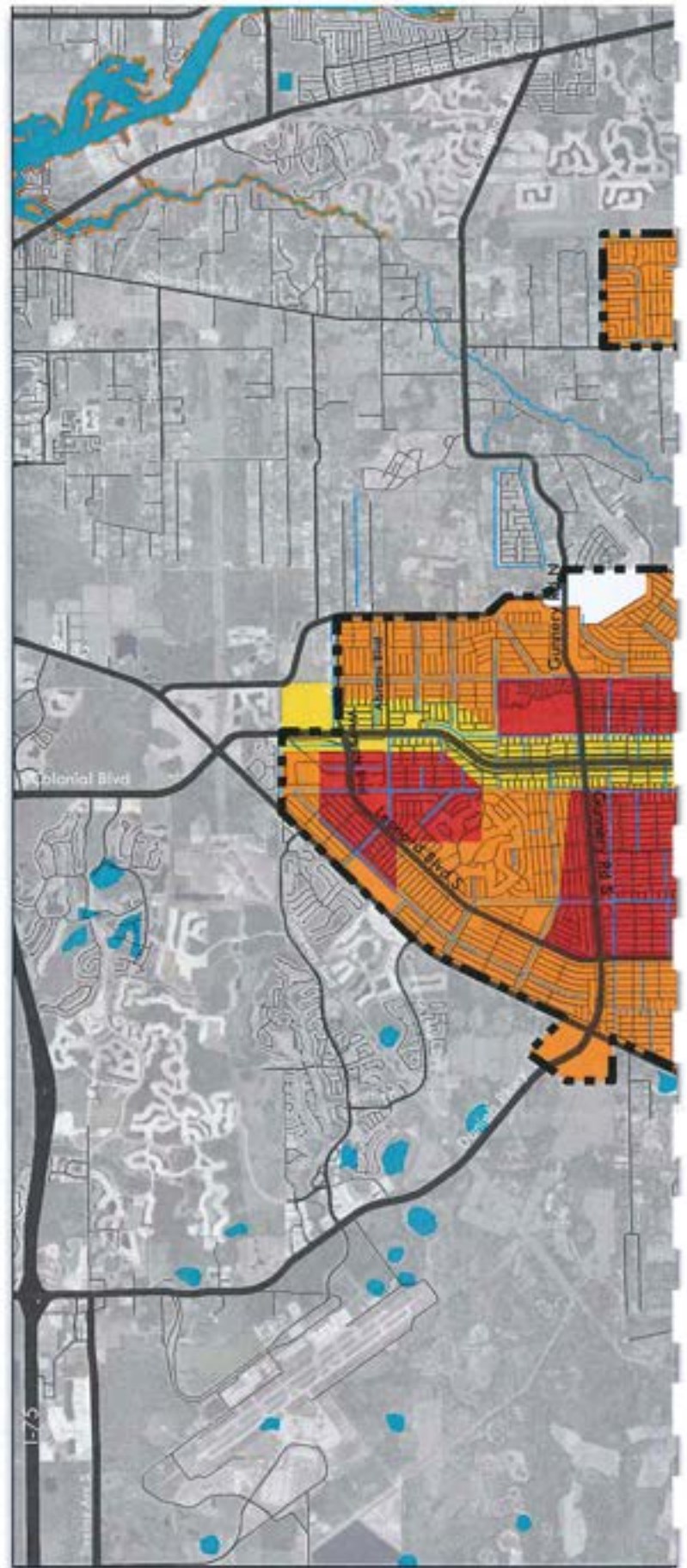


Figure 31: Fire Hazard Index

Source: Lee County Mitigation Master Plan

- Extreme
- High
- Moderate



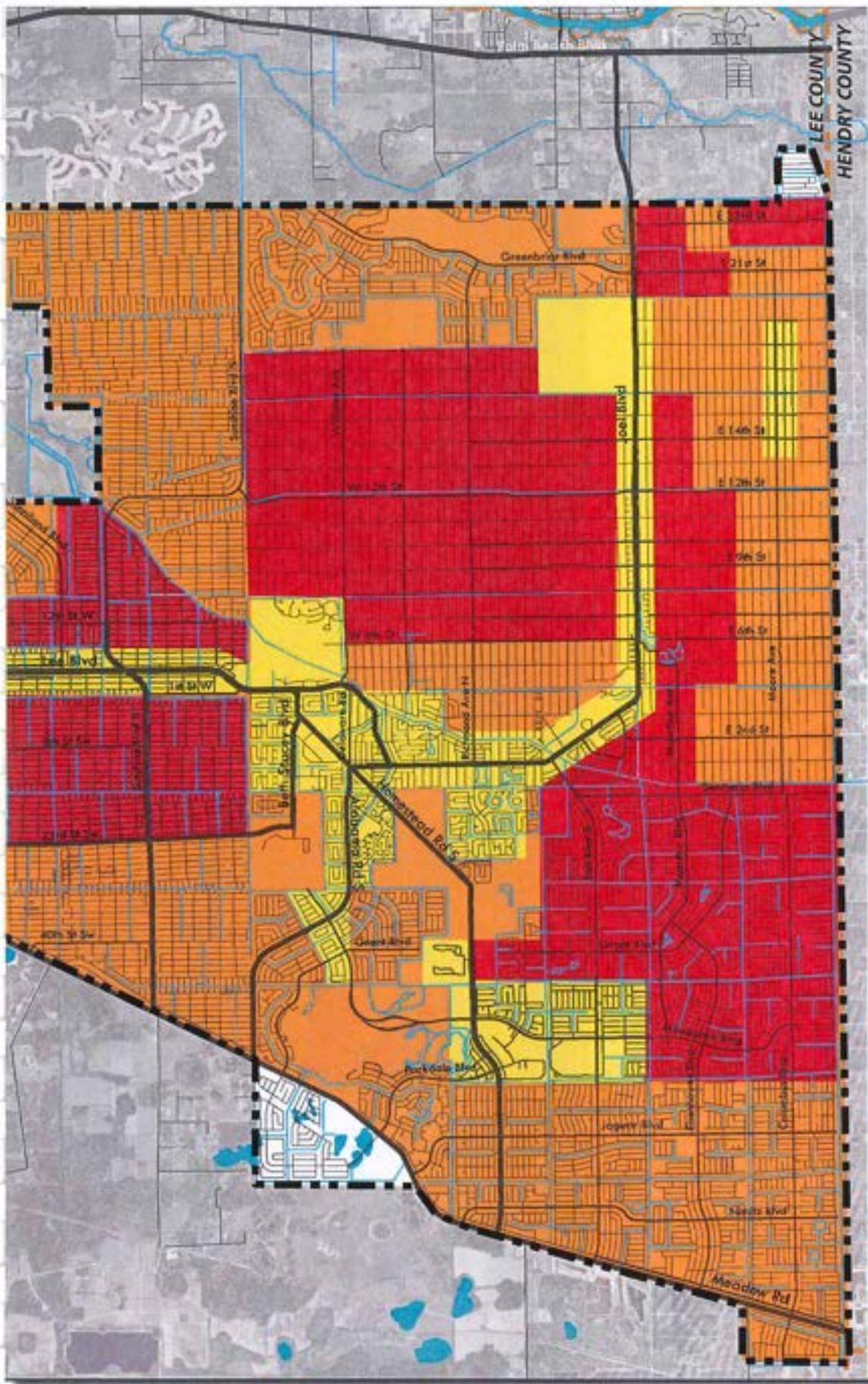


Figure 32: Police Protection

Source: Lee County Sheriff's Department

-  "Bravo" Police District Boundary
-  Bravo District: Zone B2
-  Bravo District: Zone B3
-  Bravo District: Zone B4
-  Bravo District: Zone B5
-  "Echo" Police District
-  Sheriff's station



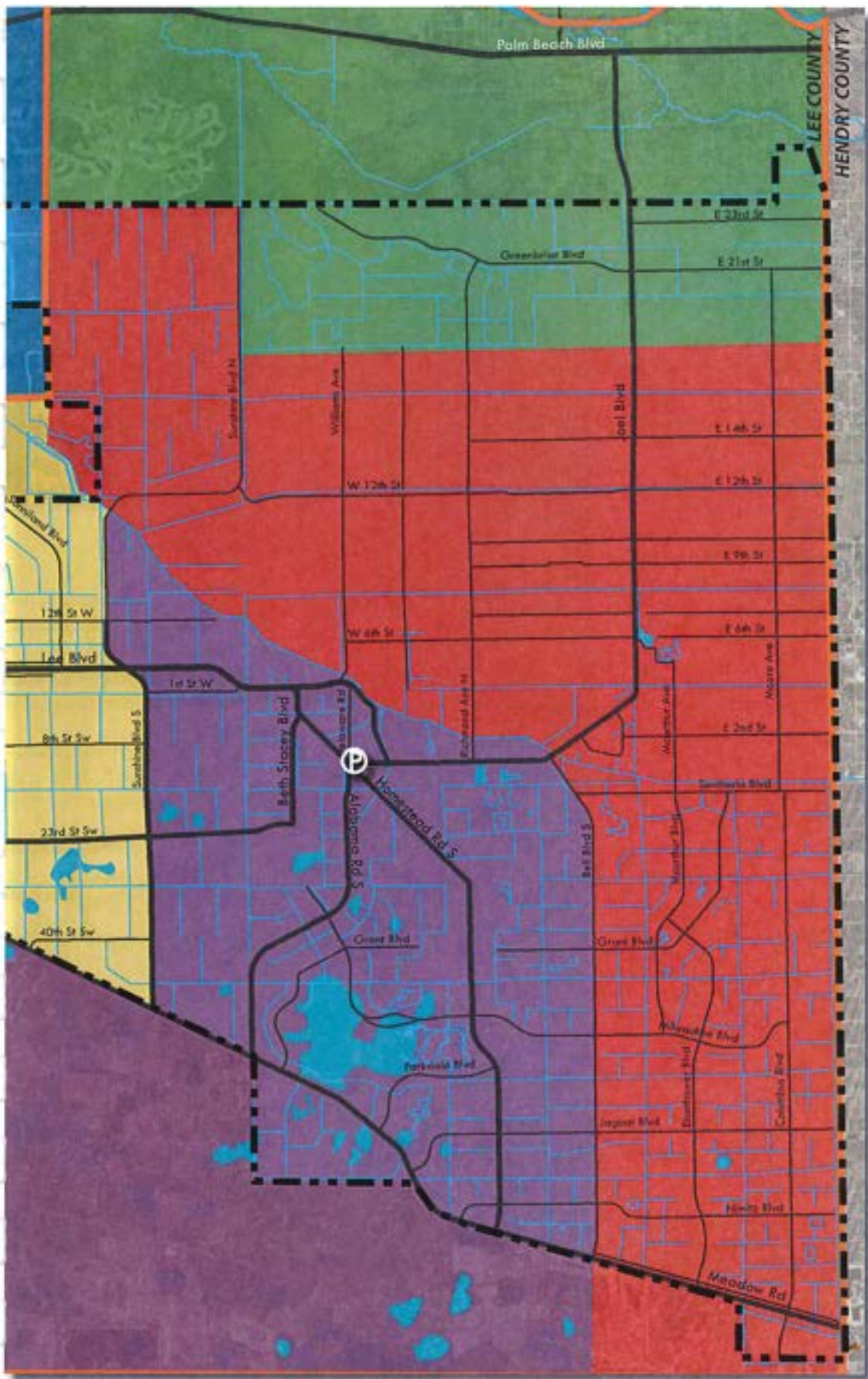
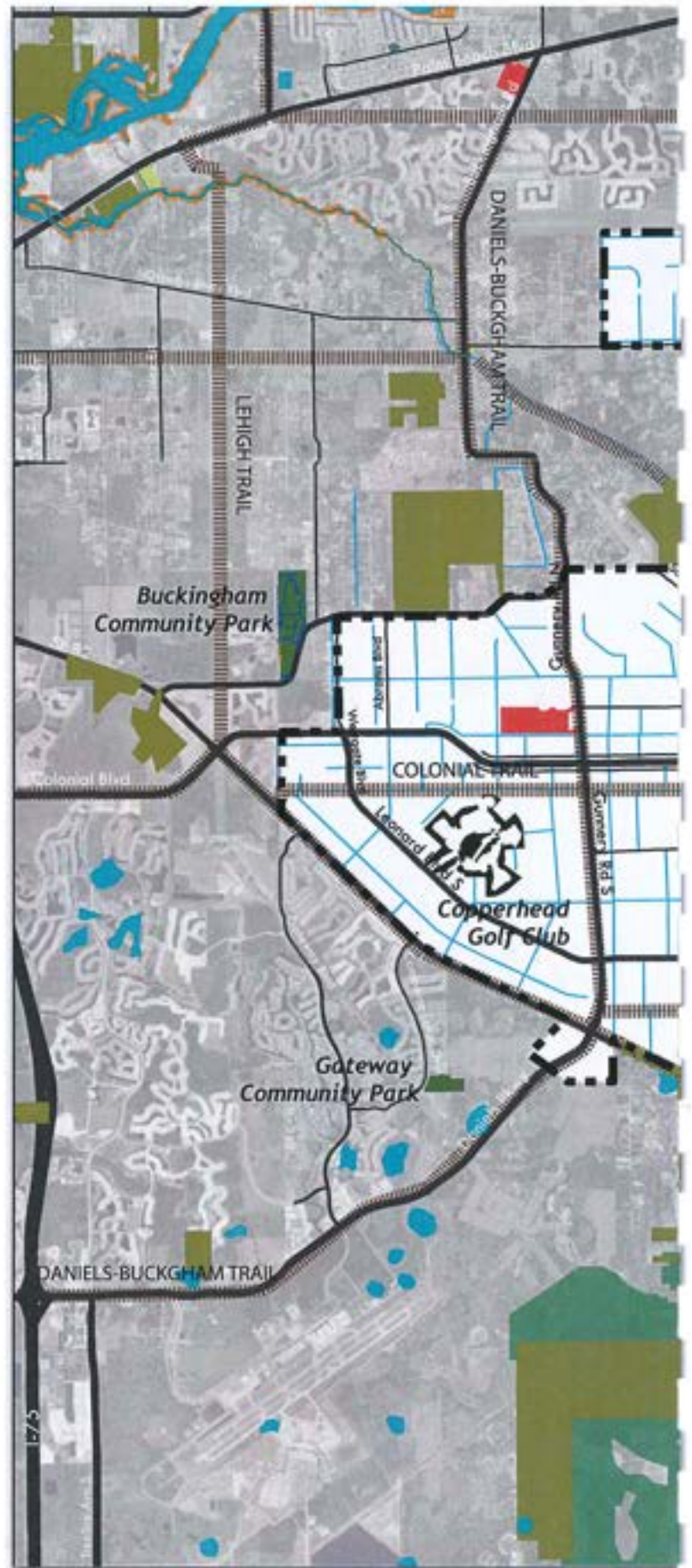


Figure 33: Parks & Recreational Areas

Source: Lee County GIS/Conservation 2020

-  Regional parks
 -  Community parks
 -  Golf Courses
 -  Schools
 -  Recreation centers
 -  School Recreation centers
-
-  General
 -  Blueway
 -  Hiking
 -  Road
 -  Fire lane
 -  Proposed trail
-
-  Conservation lands
 -  Ecologically responsible farming and habitat restoration



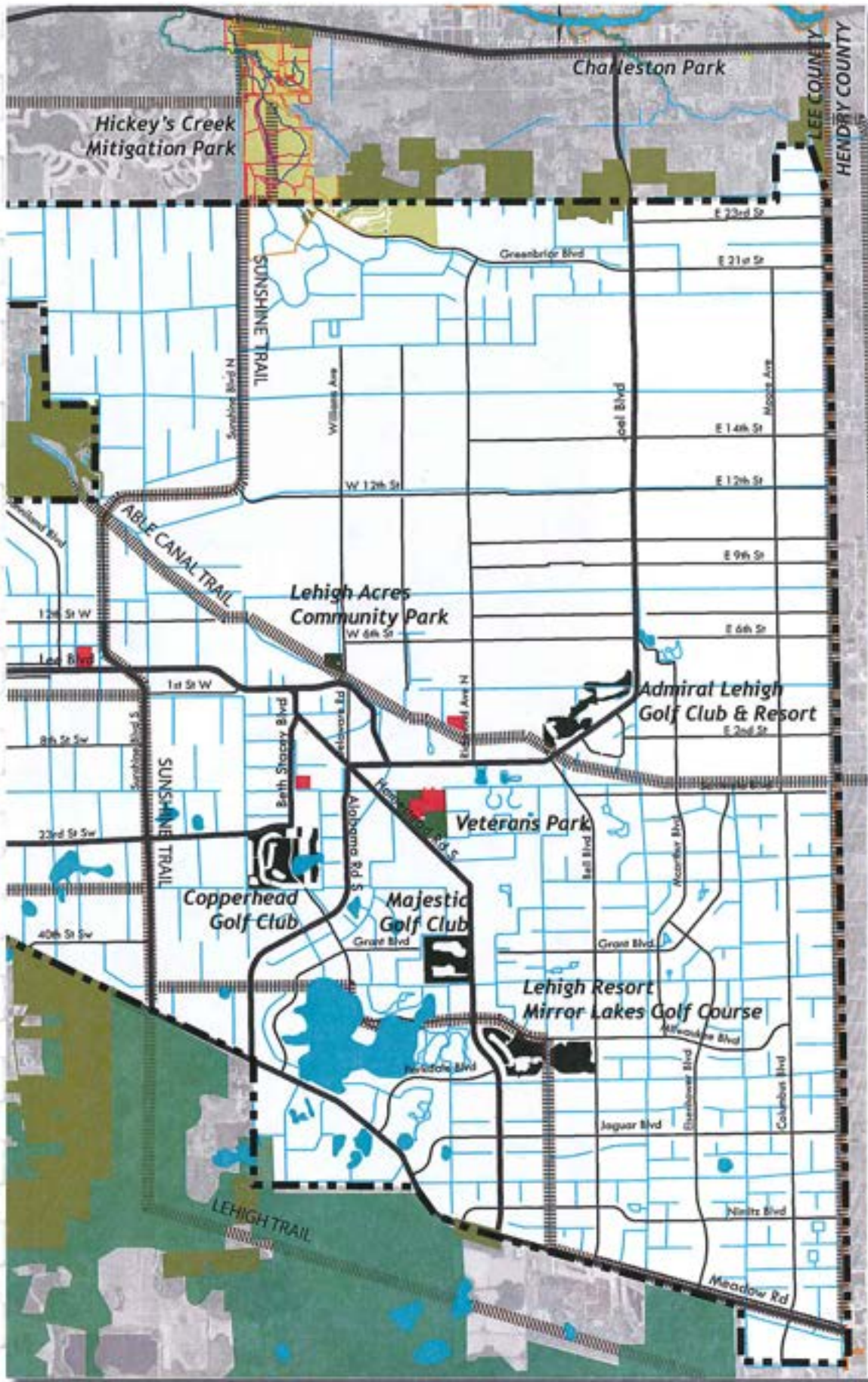


Figure 34: Community Facilities

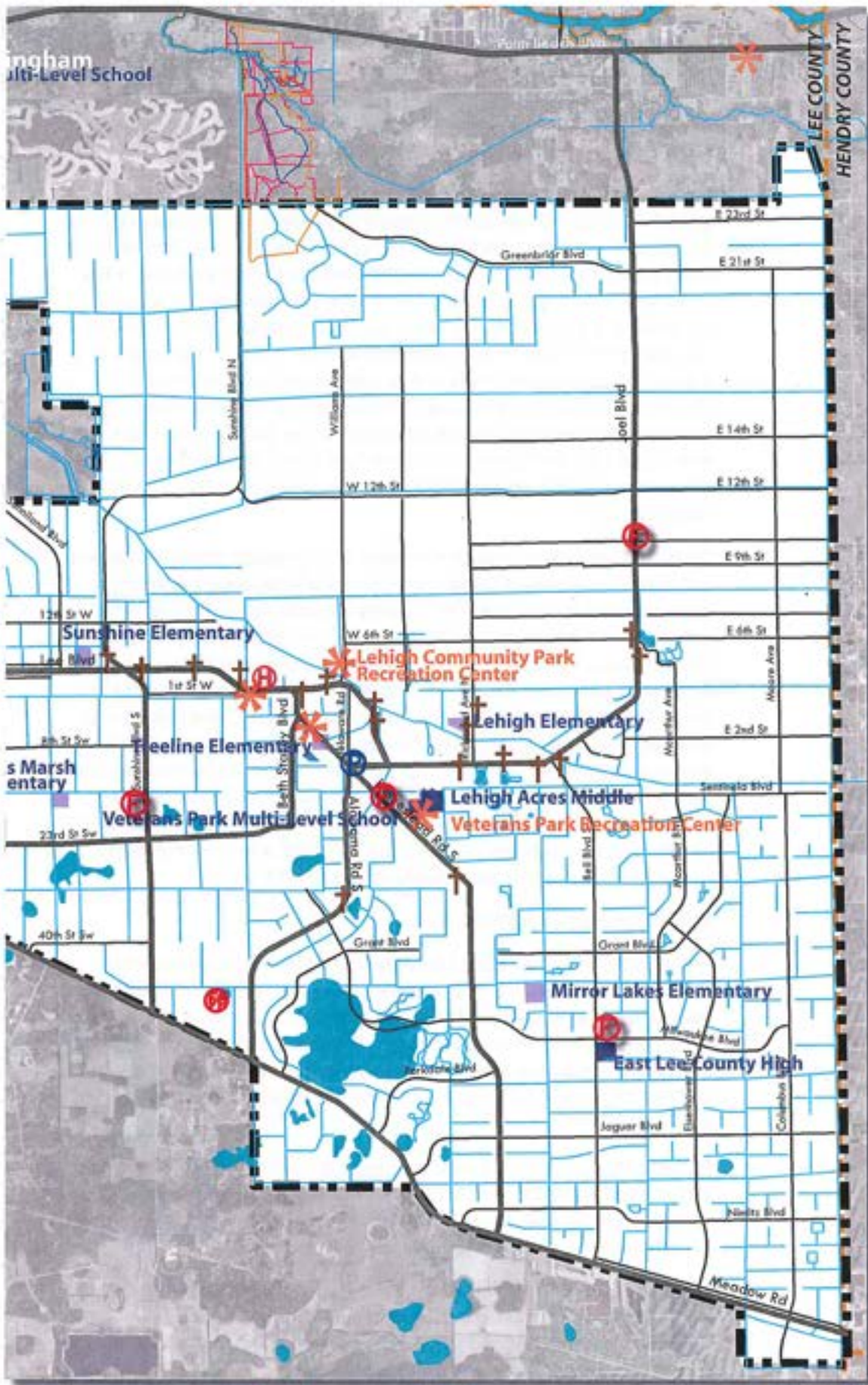
Source: Lee County GIS

-  Cemetary
-  Public school with fields
-  Public school without fields
-  Library
-  Church
-  Hospital
-  Police station
-  Fire station

-  Regional, community and neighborhood parks
-  Recreation centers

-  General
-  Blueway
-  Hiking
-  Road





It is also noteworthy that, while the level of service standard may be met, there are spatial deficiencies due to the fact that the existing parks all tend to be located in the urban core of the community. Lee County does not require nor provide neighborhood parks, and many areas of Lehigh Acres are distant from the existing recreational facilities. In particular, the north, east, and southwest sectors of Lehigh Acres lack active recreation facilities.

From a passive recreation perspective, the area in general is much better served. In 2005, the Lee County Greenways Master Plan designated several greenways and connector trails throughout Lehigh Acres. The Daniels Buckingham Trail, which is part of Captiva-Hendry-Collier Greenway, is 8.5 miles long. As of the publication of the Master Plan, the trail was partially complete, but the majority was still in the planning phase. The Lehigh Trail, also part of the Captiva-Hendry-Collier Greenway, is 12.27 miles long and weaves through forested areas and farmland to connect Lee County to Hendry and Collier Counties. Lehigh Acres contains several portions of the Charlotte-Lee-Hendry Greenway, including the Lee Trail, Sunshine Trail, and Able Canal Trail. Jim Fleming Ecological Park, a 4-acre passive park, is operated by the ECWCD. Another ECWCD-owned park is the 5-acre Williams Greenway Park.

There are also several large Conservation 20/20 program properties located within or in the vicinity of Lehigh Acres, part of a large system of natural lands acquired by the County for a variety of purposes—habitat conservation and restoration, mitigation, and passive recreation. They include: Hickey's Creek Mitigation Park, a 1,158-acre property which includes a 5-mile long hiking trail; Greenbriar Connector Preserve, which contains 14 acres, just south of Hickey's Creek, and offers opportunities for hiking and bird watching; Alva Cypress Preserve, consisting of 675 acres, located at the boundary between Alva and Lehigh Acres; the Alva Scrub Preserve (160 acres); Charlie's Marsh Preserve, a 21-acre mitigation area; Harn's Marsh, a 578-acre property which serves important stormwater retention/detention functions for Lehigh Acres; and Wild Turkey Strand, a large preserve with over 3,000 acres located immediately south of SR 82.

Other Community Facilities

The majority of the developed land in Lehigh Acres is zoned Residential One- and Two- Family, which permit few community facilities as of right. Most of the existing community facilities tend to be clustered along the main arterial corridor, Lee Boulevard, and the core area around Homestead Road (Figure 34). This concentration leaves large areas of Lehigh Acres lacking facilities, and requires driving, sometimes long distances, to access existing services.

For example, there is only one library, the East County Regional Library to serve Lehigh Acres and the greater part of East Lee County. It is a 40,000 square foot facility with a large meeting room that seats 150 people and over 50 computers, typewriters and study rooms for public use.

The public school system in Lehigh Acres is controlled by the Lee County School Board. In addition to a number of private institutions, there are five elementary schools, two middle school, one high school and one multi-level school within the community. These facilities are part of the East Zone

School District or Student Assignment Zone, which also encompasses schools in Alva, Fort Myers Shores, Bayshore, Buckingham, and Gateway (and small portions of incorporated Fort Myers). This district met the level of service standard in 2007, and expected to meet it again in 2008. While the current market and economic situation has curbed growth pressure on the school system, over the past decade the population of families with young children moving to Lehigh Acres increased substantially. Land assembly for new school facilities has been a challenge for the School District due to the small parcel sizes and scattered property ownership. Many of the local schools are located near the center of the community, on Lee Blvd., Sunshine Blvd., Leeland Blvd., and Alexander Graham Bell Blvd.

There are no higher education institutions in Lehigh Acres, but Florida Gulf Coast University, Edison Community College, and Hodges University are located within 10 miles of the community.

The community has a full-service hospital, the Lehigh Regional Medical Center. The hospital, with an 88-bed capacity and all major specialties, is fully accredited by the Joint Commission on Accreditation of Health Care Organization (JCAHO).

III.9 Trends Evaluation

As the basis for developing estimates of future needs for commercial, institutional and residential and other land uses, the consultant team prepared new estimates of the potential future population of Lehigh Acres.

The first step was to determine an accurate current population from which to project. There are at least several estimates of population in Lehigh Acres that were reviewed, current as of 2006. While the number varies in each, all these estimates are in the range of 68,000 to 70,000. These figures include only permanent population.

To update these numbers to 2008, the consultant team undertook an estimate of existing population based on data provided by Lee County. The estimate of existing population is based on current land use and building permit data received from the Lee County Property Appraiser, Lee County GIS, and Lee County Community Development (Building Services). The overall population was then broken down and calculated by the three sectors or tiers previously identified in Lehigh Acres (Figure 35), based on the current degree of development (average densities) and available public services provided in each area, as follows:

Sector 1 – Predominantly Developed and Fully (or nearly Fully) Served

Sector 2 – Partially Developed and Partially Served

Sector 3 – Sparsely Developed/No Services

Existing developed single family parcels was assigned an average density of one (1) dwelling unit per parcel. On the other hand, the existing average density of multifamily units is estimated to be two (2) dwelling units per acre, as derived from an evaluation of Lee County Property Appraisal GIS parcel database. The average household size is 2.83 according to the U.S. Census 2006 American Community Survey.

Table 6 shows the factors that have been used to estimate the existing population in Lehigh Acres, and the current population estimate.

	Area 1	Area 2	Area 3	Totals
Total # of single family (SF) parcels	15,414	7,495	4,615	27,524
Multifamily (MF) land acreage	173	393	27	593
2006 Average Household Size	2.83	2.83	2.83	-
Estimated population of SF units	43,622	21,211	13,060	77,893
Estimated population of MF units	979	2,224	153	3,356
Total Estimated Current Population	44,601	23,435	13,213	81,249

Table 6: Current Population Estimate

Source: WRT based on Lee County GIS

Capacity Analysis

Additional population capacity was derived from zoning data. First, all vacant parcels that are zoned as 'one- and two-family' and 'multifamily' were identified in the GIS data base.

The density for residential use is permitted in the Lee Plan, with up to 10 dwelling units per acre in the "Central Urban" designation and up to 15 dwelling units per acre in the "Urban Community" designation. However, taking into consideration that the existing density of multifamily development in Lehigh Acres is estimated to be two (2) dwelling units per acre, it was assumed that future multifamily development would occur at a higher average of 3 dwelling units per acre.

Two-family zoned lots are assumed to develop at an average of 2 dwelling units per acre. While existing zoning data combines the single family and two-family categories, in this analysis, parcels that are smaller than the average lot size (approx. 0.4 acres) are considered as single family parcels, and properties that are larger or equal to 0.4 acres are considered as two family.

	Area 1	Area 2	Area 3	Total
Average Lot Size	0.4	0.4	0.4	-
Number of undeveloped One- and Two-Family Parcels > 0.4 acres	11,245	25,071	39,825	76,141
Number of undeveloped One- and Two-Family parcels < 0.4 acres	2,680	3,585	5,037	11,307
Total undeveloped Multifamily Acreage	372	1,291	444	2,107
2006 Average Household Size	2.83	2.83	2.83	-
Additional population capacity of undeveloped One- and Two-Family parcels	46,992	91,242	141,214	279,448
Additional population capacity of undeveloped Multifamily parcels	3,158	10,961	3,770	17,888
Total Estimated Additional Population Capacity	50,150	102,203	144,984	297,337

Table 7 Additional Population Capacity

Source: WRT based on Lee County GIS

Based on these calculations the future potential population of Lehigh Acres is shown in Tables 8 and 9. Table 8 shows future total population assuming that, in the future, little or no additional development would be permitted in Sector 3, while Table 9 shows the future population assuming development of Area 3 continues untethered until buildout.

	Area 1	Area 2	Area 3	Totals
Estimated current population	44,601	23,435	13,213	81,249
Estimated additional future population capacity	50,150	102,203	-	152,353
Total potential population capacity	94,751	125,638	13,213	233,602
Additional dwelling units (capacity)	17,116	34,881	-	51,998

Table 8: Scenario A - No additional development in Area 3

Source: WRT

	Area 1	Area 2	Area 3	Totals
Estimated current population	44,601	23,435	13,213	81,249
Estimated additional future population capacity	50,150	102,203	144,984	297,337
Total potential population capacity	94,751	125,638	158,197	378,586
Additional dwelling units (capacity)	17,116	34,881	49,483	101,480

Table 9: Scenario B - Full buildout

Source: WRTc

Population Projection

The consultant team prepared a population projection using a top-down projection model that assumes homogeneous regional development over the next 20-25 years. The Lehigh Acres study area, as currently defined, encompasses approximately 8 percent of the total land area of Lee County, and currently supports about 12 percent of the total permanent population. The population model suggests that the Lehigh Acres study area might support nearly 14 percent of the total county population and capture more than 12 percent of county population growth by 2030.

Based on the analysis and the existing constraints affecting Lehigh Acres, a 2030 base population of approximately 166,000 (an increase of about 84,500) permanent residents is projected with a corresponding population density of nearly 1,700 persons per square mile. With an additional population capacity of approximately 152,000 persons in Sectors 1 and 2 combined—based on present zoning—it is evident that the bulk of the projected population growth can be easily accommodated within these two areas. If all growth were directed into these areas, their buildout would be achieved in 25-30 years. This forecast represents the theoretical physical population and density maximums possible.




While it is physically possible that the 96 square-mile Lehigh Acres study area could achieve an even denser character, based on the maximum number of housing units that could be “fit” into the subdivision (given the current platted parcelization), it is very unlikely that the region will intensify to such a degree. If Lehigh Acres continues to possess a deficit of commercial and public land and development, the community may not be able to attract a population corresponding with the platted buildout without addressing these deficiencies.

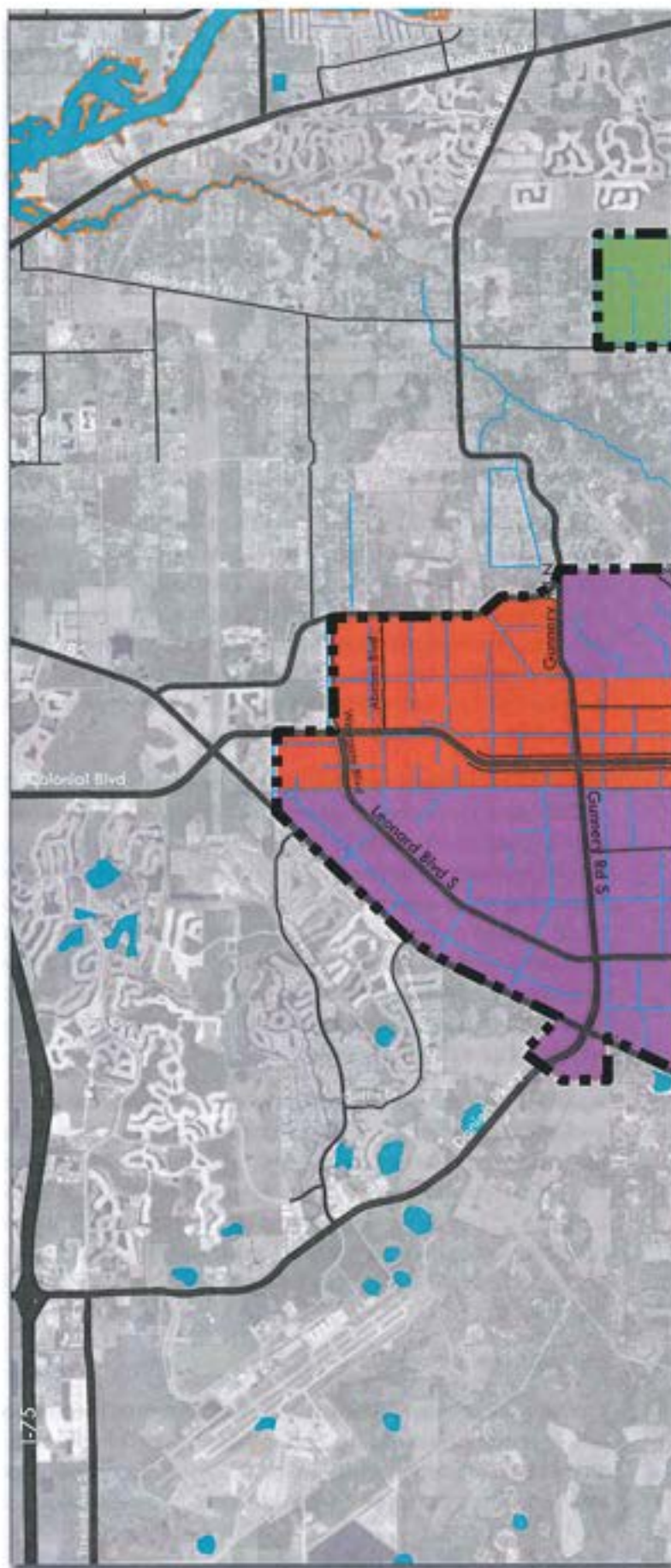
Needs/Demand Analysis

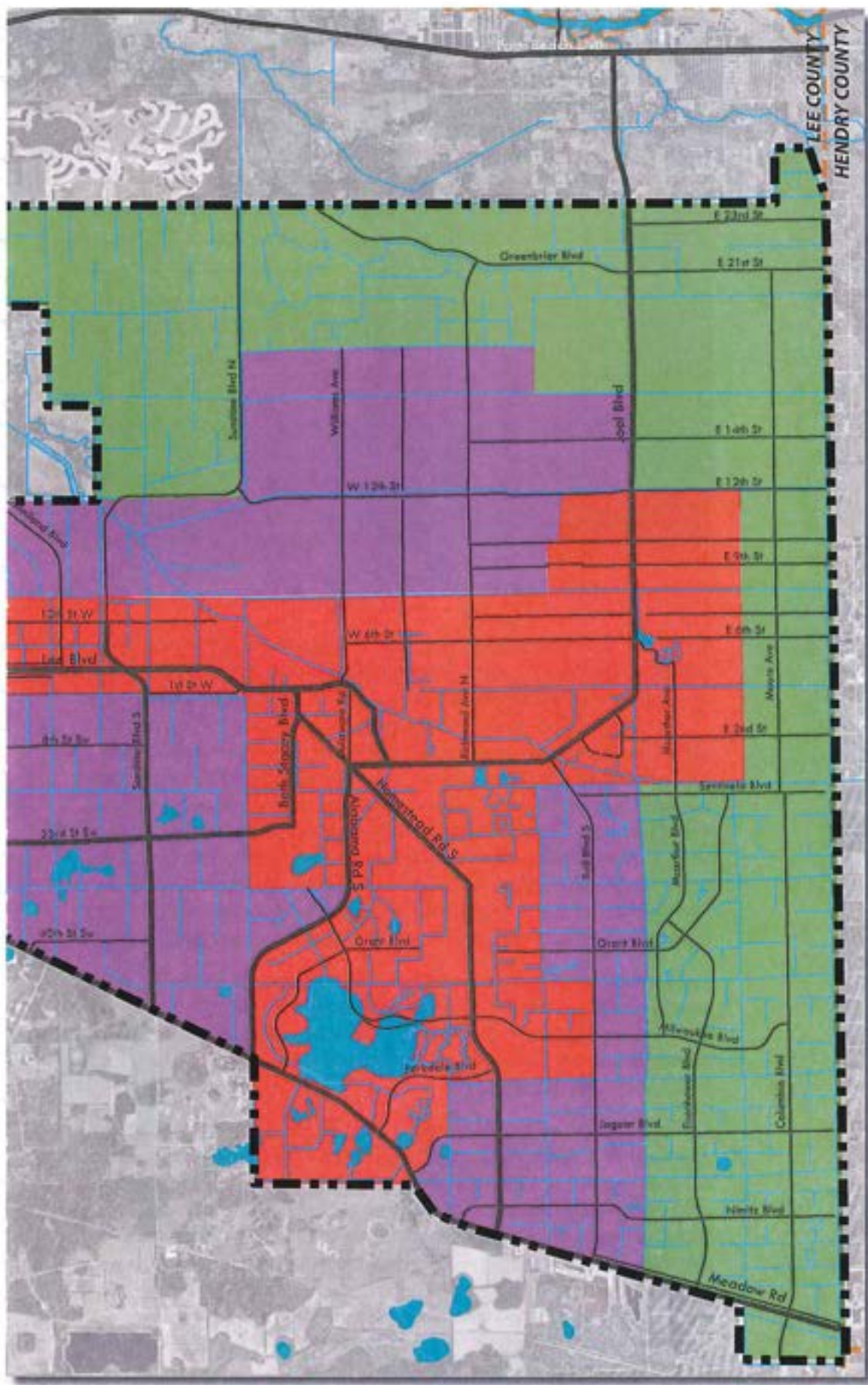
The limited commercial development and local employment base and the lack or shortage (absolute or spatially relative) of cultural, civic, and recreational activities suggest that Lehigh Acres is still functioning as a vast bedroom community, and will not easily become a self-sustaining community.

Figure 35: Tiered Growth Concept

Source: WRT based on Lee County GIS

-  Predominantly developed
-  Partially developed
-  Sparsely developed





Based on the population estimates, a rough analysis of land needs for commercial/industrial uses, schools, and parks and recreation was conducted (Table 10). The projected demand for these uses is shown in the following tables. In each case, it is assumed that action will have to be taken to curtail development in Tier 3 (Sparsely Developed) in order to create a more viable scenario for the provision of services and facilities.

Estimated current population	81,249
Additional population capacity	152,353
Total number of parcels in Lehigh Acres	125,855
Total number of residential parcels	29,455
Average of current developed commercial land	297
Additional undeveloped commercial acreage	710
2030 projected commercial land acreage required	1,565
Current deficit of commercial land acreage	558
Current developed industrial land acreage	173
Additional undeveloped industrial land	84
2030 projected industrial land acreage required	701
Current deficit of industrial land acreage	444

Table 10: Estimated 2030 Demand for Commercial and Industrial Land

Source: WRT and RERC, based on Lee County GIS

Today, limited commercial development is distributed over the older residential service area in Lehigh Acres, while areas outside the water service boundary are almost entirely without substantial commercial development. The infrastructure constraints, if unmitigated, necessitate the intensification of both residential and commercial development within the existing water service boundary. As residential populations and densities grow unchecked outside the current service area boundary, and locate increasingly farther from the established Lehigh Acres urban core, non-residential demands will likely have to be supplied by commercial development outside of the Lehigh Acres study area. Further, the projected deficit of commercial and industrial land may never be completely met within Lehigh Acres, particularly for regional-serving commercial retail and intense employment generators.

Table 11 shows the two different types of County parks that exist in Lehigh Acres and the projected recreational land needs for 2030. Even though there is a deficit for Regional Parks, Hickey's Creek Mitigation Park is immediately adjacent to Lehigh Acres and can be considered to meet the "local" Lehigh Acres need for regional parks.

Currently there are three elementary school, three middle schools, and two high schools in Lehigh Acres. An evaluation of the existing educational facilities service areas and their enrollment capacity indicates that, based on the projected population and anticipated share of school-age children, there will be a need for 17 elementary schools, 17 middle schools, and 6 high schools by 2030. At standard acreage for each of these facility types, the land demand for these facilities will approximate 1,400 acres. (These estimates for the purpose of estimating potential land needs only. They are not based on School District projections, which were not available to the Consultant, nor have they been vetted by the District).

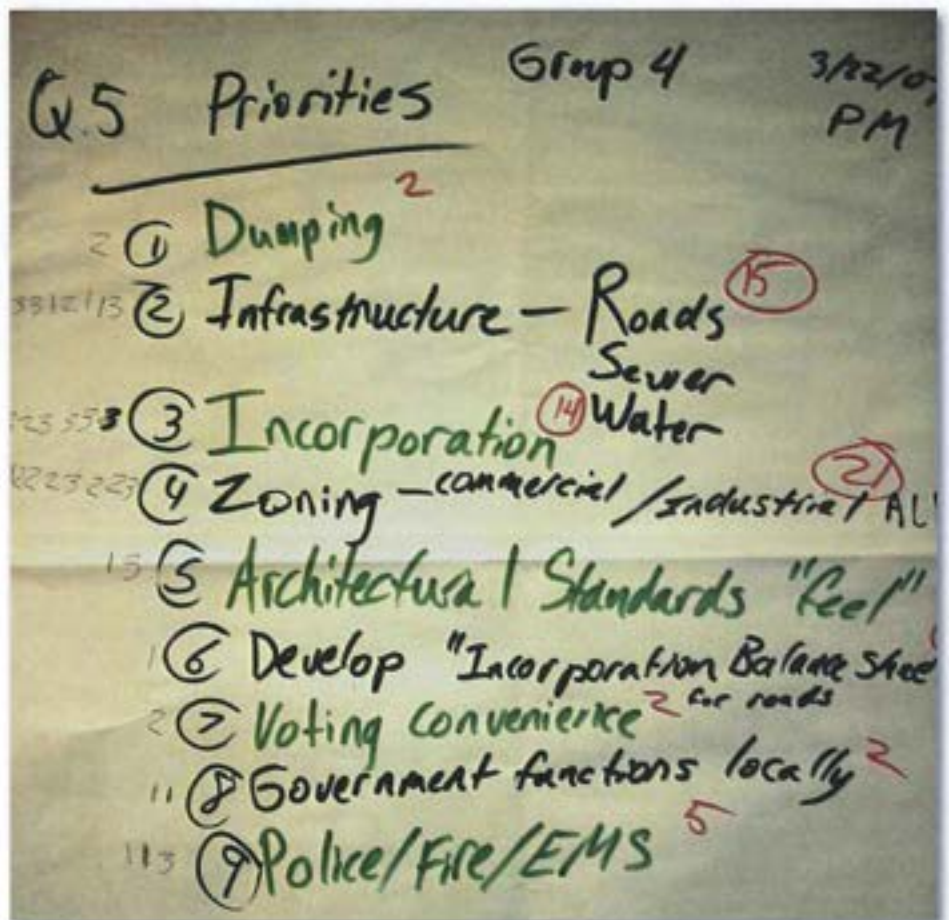
There are five existing fire stations in the community, which are enough to respond today's demand. To address future demand, the Fire District is examining three potential general locations for future fire stations in Lehigh Acres. A preliminary assessment was conducted of the impact of the proposed additional fire stations in improving service response times. Using a 5-minute response time, 2-mile distance as a rule of thumb for adequate service, the total coverage area for existing and future fire stations was estimated. Therefore, the current facilities serve an area of 34,239 acres. The addition of three new stations could increase the coverage of a 2-mile response distance to 48,586 acres, a 42% increase. Areas that would still miss the timely service are the outlying areas in the northeast and northwest corners of Lehigh Acres (refer to Figure 30).

	Acerage	%	Current Standard (ac/ 1000 persons)	Future Standard (ac/ 1000 persons)	Existing condition (ac/ 1000 persons)	Current Surplus (/Deficit) in acres	Projected need (ac @ current std/future std)	2030 Deficit in ac @ current std/ future std)
Regional Parks	1,158	86.7	6	8	15	708	1300/1700	(592/992)
Community Parks	120	13.2	0.8	2	1.6	30	180/430	(60/310)
Private/Public Partnership	1	0.1						
Total	1,279	100					1480/2130	(201/851)

Table 11: Summary of 2030 projected recreational land demand in Lehigh Acres Source: WRT based on Lee County GIS

The image features a stylized map of a region, likely a city or county, set against a blue gradient background. The map shows a network of roads, with a prominent grid of roads in the center. A large, irregularly shaped area in the center is highlighted in a darker shade of blue, suggesting a specific zone of interest or a proposed development. The map is overlaid with a grid of dashed lines, and several circular markers are placed at various points along the road network. The overall aesthetic is clean and modern, with a focus on infrastructure and planning.

SECTION IV
THE VISION



Four (4) community forums were held between March 21 and April 28, 2007 with Lehigh Acres residents. The raw input received at these forums laid the foundation for a long-term community vision, and provided the core elements of the Vision Statement. Moreover, coupled with the analyses conducted concurrently (summarized in the previous section), the community input helped to identify the top concerns and expectations that the planning effort needed to focus on to meet future needs.

Based on the aspirations and concerns publicly expressed by residents, the long term vision for Lehigh Acres is:

"...to become a "Sustainable Community of Choice," a community that is safe, affordable, connected, well-served, livable, attractive, and populated by a diverse and engaged citizenry."

This vision has informed and inspired every aspect of the Community Plan. The following are the key elements of the long-term vision for Lehigh Acres:

Managed / Balanced Growth: Encourage growth in areas where a full range of public services is in place or planned, and discourage or slow growth in outlying areas lacking in water, sewer and other basic infrastructure. Diversify the land use pattern and strengthen the local economy and tax base by reserving land and retrofitting existing land use patterns to incorporate adequate employment, commercial and mixed-use development. Strengthen downtown and other centers of activity and promote sound land uses along important highway corridors.

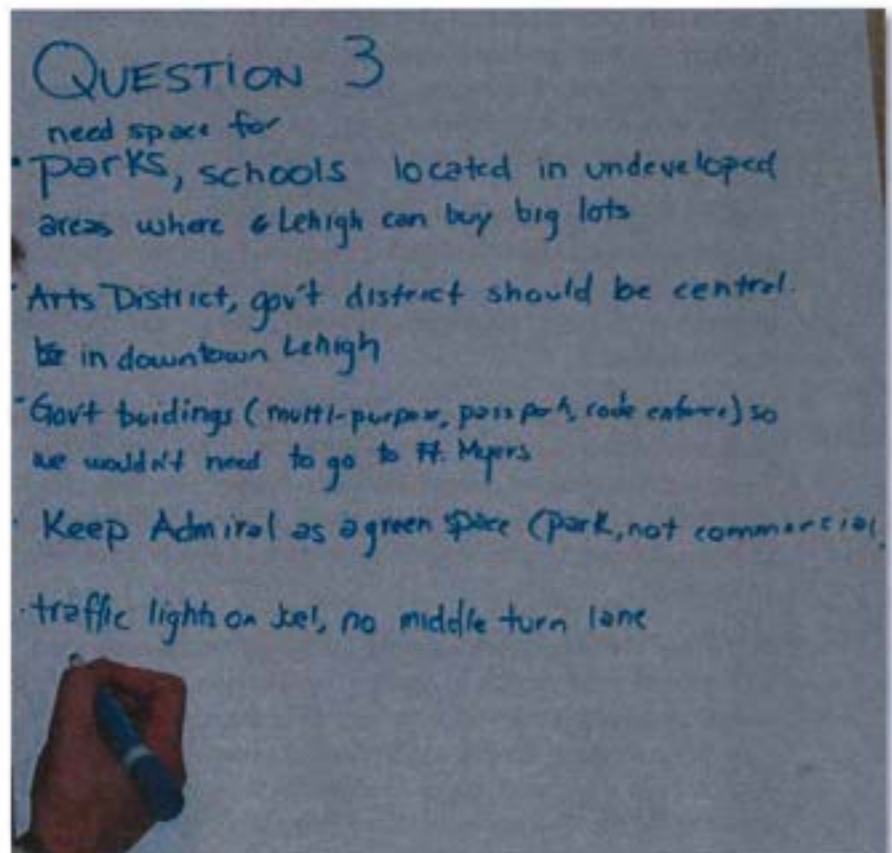
Community Character: Enhance community identity and pride, raising the bar for development quality, architectural character and quantity and quality of landscape materials. Integrate parks, open space, enhanced canal corridors and greenways as community form-givers and amenities to enhance quality of life.

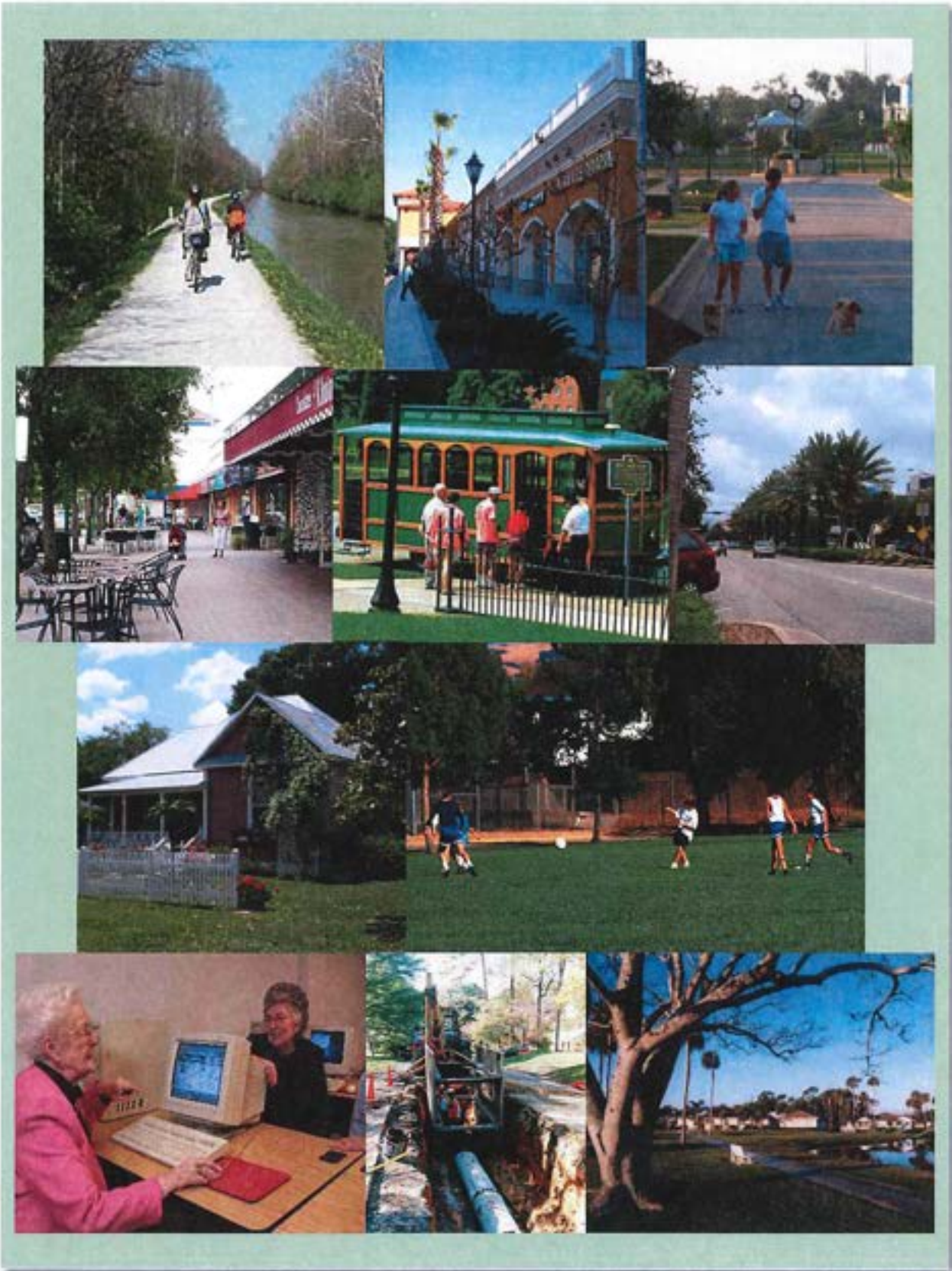
Natural Resource Protection / Restoration: Protect the quality and quantity of groundwater by reducing the impact of septic systems and by providing for adequate groundwater and aquifer recharge. Promote a "greening" of Lehigh, emphasizing the use of native landscape species.

Efficient Transportation: Upgrade the condition and capacity of the local road system, improving connectivity and applying principles of access management along major roadway corridors. Promote alternatives to auto reliance through transit, and improved networks of sidewalks and pedestrian and bicycle trails as part of community greenways.

Full Array of Public Services and Facilities: Expedite the staged extension of water and sewer systems, connect lots previously served by on-site septic and wells, and discourage additional development reliant on on-site well and septic systems. Reserve land and promote intergovernmental coordination for the development of local schools, libraries, recreation centers and other facilities and services necessary for a sustainable community of choice. Act in

multi-faceted ways to protect public safety, including maintaining adequate emergency response times, ensuring necessary fire (water) flows, avoiding undue concentrations of multi-family and rental housing and by providing a range of engaging activities for children, youth, adults and seniors.







SECTION V
CONCEPT PLAN

Through the Community Assessment and Trends Evaluation, the current conditions and pattern of development in Lehigh Acres appeared to be incompatible with the future community characteristics articulated in the Lee Plan as currently adopted and is inconsistent with the new Vision Statement developed by the community. Without focused efforts to extend infrastructure, acquire land for community facilities, and spur commercial development, a sustainable, urban community future land use will more than likely be unattainable for much of the sparsely developed areas within Lehigh Acres. Without action or change of course, urbanization of the entire Lehigh Acres study area appears to be a very low probability outcome in any foreseeable time frame given the current conditions, impediments created by small parcelization, and cost prohibitions.

In an effort to bring reality closer to the vision (both Lee Plan's and the community's), the concept plan establishes a framework for decision-making geared, fundamentally, at downscaling the urbanizing/urbanizable area of Lehigh Acres into a smaller, more compact, more sustainable form. This will reduce public costs by encouraging a more efficient use of existing and future infrastructure, while recognizing the critical importance of intergovernmental coordination and partnerships to realize the plan's objectives.

V.1 Guiding Principles

Three key Principles—derived from the Project Parameters established in Phase One of the planning process, and the Vision Statement developed in Phase Two with the input of Lehigh Acres residents—guide the plan for Lehigh Acres. The Guiding Principles are as follows:

1. Consolidate Development Patterns by Directing Growth

The quantity of growth to be absorbed in Lehigh Acres over the next 20 years will not be sufficient to fully build-out and consolidate the development patterns throughout the community. To avoid further fragmentation and population dispersion, and in the interest of sustainability and livability, growth should be guided first into areas that already have the necessary array of public services and facilities, and then to areas which may achieve a critical mass of growth to support a full array of public services and facilities over the plan horizon.

Conversely, growth should be discouraged in those areas likely to remain sparsely built over the next 20 years.

2. Reserve Land for Non-residential/Service Uses

A fundamental flaw in the initial planning and platting of Lehigh Acres was a lack of consideration for the need to reserve appropriately-sized and located parcels to serve as sites for shopping and employment centers, schools and other civic uses, as well as for alternative housing types and mixed use activity centers.

Sites should be reserved, and incentives provided for the development of such future uses, while discouraging conversion of land for additional residential use.

3. Anticipate Long-Range Risks to Public Health, Safety and Welfare

While there is little direct evidence today of an immediate health threat, at some point in the future the continued proliferation of private wells and septic systems could reach a critical mass of impact upon the quantity and quality of groundwater resources, and create a peril to public health.

Similarly, while present levels of traffic congestion may be endurable, incremental growth of population and automobile trips, if not accompanied by proportionate, staged increases in traffic capacity, may reach a critical mass of intolerable gridlock.

The continued spread of scattered development, coupled with the existing deficiencies in roadway network continuity, is also potentially detrimental to public safety, as emergency response times are increased.

For these reasons, Lee County should anticipate and prepare to respond to such risks by working with regional and local agencies and organizations, including ECWCD, FGUA, the Health Department, Lee DOT, and others, to: (a) more thoroughly study these issues specifically related to Lehigh Acres; (b) pace the propagation of development in the sparsely settled areas of Lehigh Acres, where infrastructure systems, including roadways, are most incomplete/ inadequate; (c) collectively and coordinately initiate actions and programs to avert or minimize potential threats.

V.2 Strategic Directions

The following paragraphs outline the potential interventions or strategic directions that respond to the key principles, and address areas of concern raised by Lehigh Acres residents and other stakeholders or derived from the analysis of existing conditions and key factors.

Strategic Direction 1: Undertake "early action" zoning and regulatory changes for improved highway corridor development (for example, to restrict "model homes"), commercial development standards, urban design guidelines for "downtown" Lehigh Acres, improved residential development, and modifications to the land development/zoning patterns (e.g. to reduce concentrations of duplexes and other uses).

Strategic Direction 2: Stage and direct growth over time. Until Lehigh Acres develops a critical mass of development capable of generating enough tax revenue, growth should be directed into areas presently served by infrastructure, or areas approaching a critical mass of development where extension of said infrastructure should be programmed, and away from areas likely to remain sparsely developed for the foreseeable future.

Strategic Direction 3: Implement a 10-Year Capital Improvement Program in Tiers 1 and 2, as follows:

SD 3-A: Accelerate provision of central water, sewer, and other public facilities in Tier 2 within a 10-year period, and sooner within Tier 1 to enhance capacity needed to accommodate infill, redevelopment and intensification.

SD 3-B: Identify priority road network enhancements in Tiers 1 and 2 to improve road network condition and connectivity.

Strategic Direction 4: Coordinate Stormwater Improvement Initiatives with the East County Water Control District (ECWCD), including, potentially, large-scale land acquisition for stormwater storage and/or groundwater recharge.

Strategic Direction 5: Address the long-range impacts of septic systems and private wells. Working closely with the Lee Health Department, the Department of Environmental Protection, ECWCD, and other agencies, investigate the potential environmental and public health threats and become prepared to alter permitting of on-site systems as necessary. The County should also enforce retroactive tie-in requirements where water and sewer service is in place, and make provisions to mitigate the financial impact of tie-ins upon homeowners by extending payments over time.

Strategic Direction 6: Selectively acquire and assemble property for non-residential uses in Tiers 1 and 2, through the establishment of a land trust, community redevelopment agency, or comparable entity, limited in area.

Strategic Direction 7: Create Municipal Services Taxing Units to Fund Capital Improvements. The cost of providing basic infrastructure and facilities is well beyond what current property taxes collected within Lehigh Acres could alone support. Although Lehigh Acres already has in place an MSTU for street lighting, additional MSTU's should be considered for application in Tiers 1 and 2 for street paving, sidewalks/trails, community parks, and water and sewer service (in conjunction with FGUA).

Strategic Direction 8: Initiate Large Scale Land Acquisition for Conservation throughout Tier 3, working with FDEP, ECWCD, and new or existing land trusts, develop a strategy for phased acquisition, relocation and environmental restoration.

V.3 Development Staging (Tier System)

The pace and location of new development and infrastructure expansion in Lehigh Acres should be guided by a Tier System to ensure a more functionally and fiscally sustainable future. The proposed tiers, shown in Figure 36 are consistent with the three general sectors identified as the key components of the community structure. They are defined as follows:

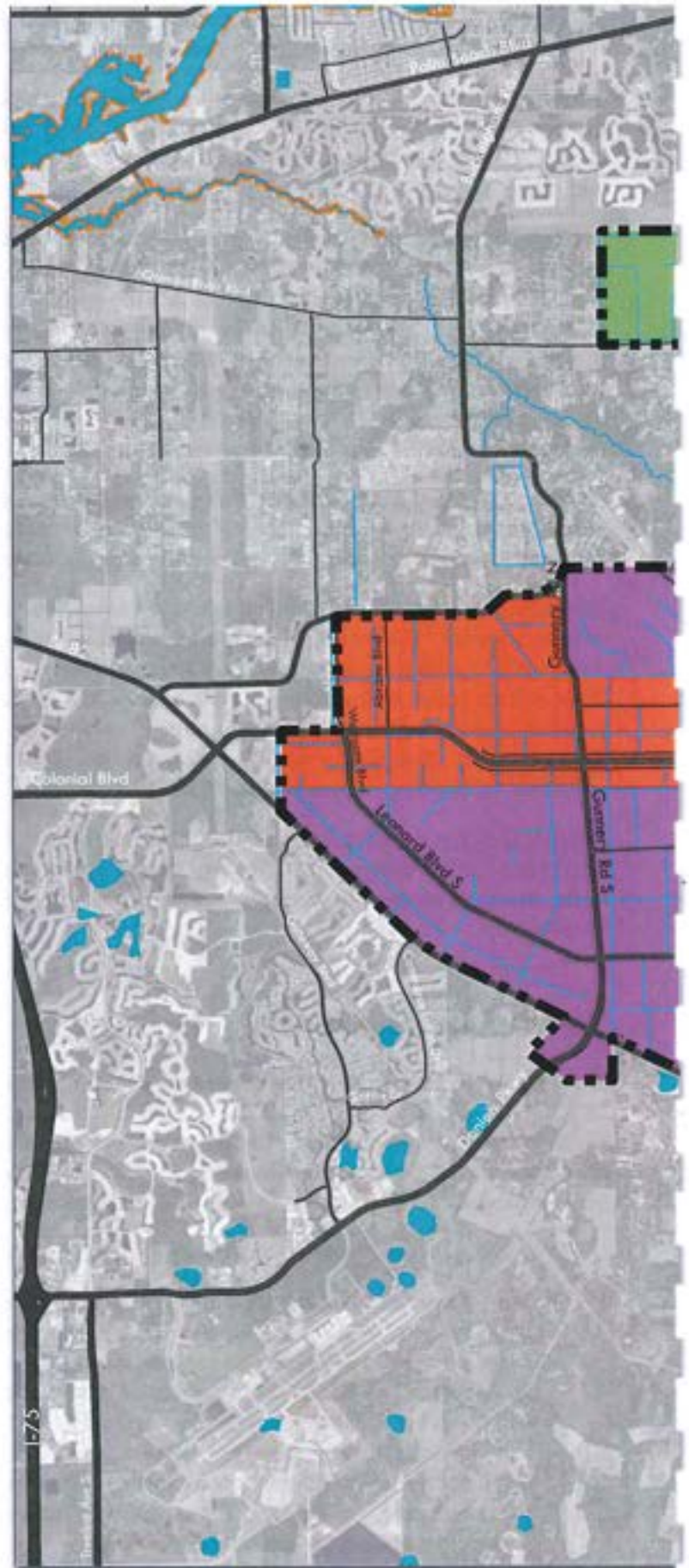
Tier 1 – Largely Developed - Priority Area 1 (0-10 years)

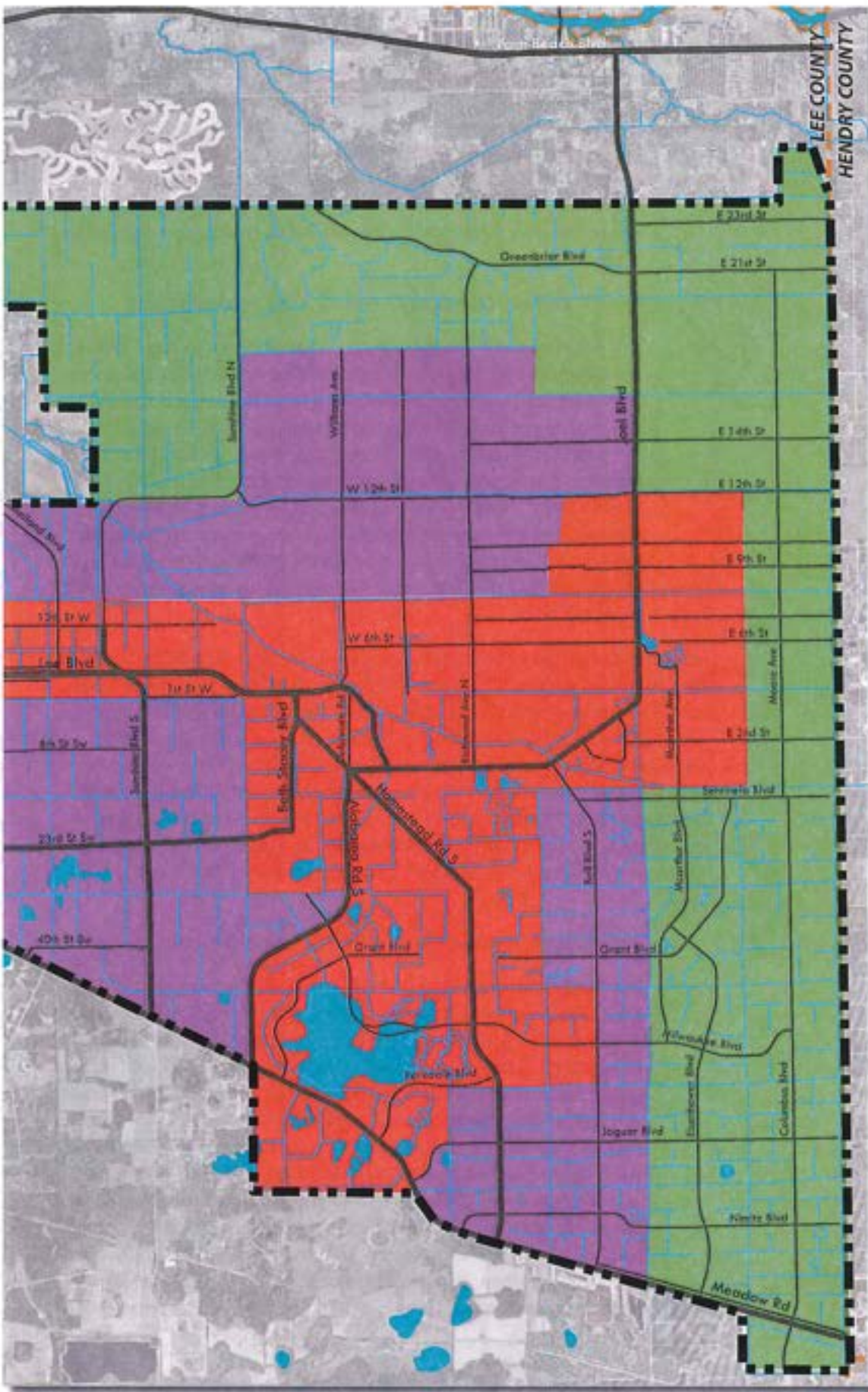
Tier 1 consists of the older urbanized core of Lehigh Acres that is largely served by an existing array of public services and facilities, including a well-developed road network, water and sewer facilities, schools, and the bulk of Lehigh Acres' commercial development. This tier consists generally of an east-west band of land along Lee Boulevard, approximately between 4th Street and 16th Street and a north-south band generally extending to the west and east of Homestead Road. Although Tier 1 is the most developed and urbanized portion of Lehigh Acres, approximately 50% of its resi-

Figure 36: Tiered Growth Concept

Source: WRT based on Lee County GIS

- Predominantly developed
- Partially developed
- Sparsely developed





dential lots remain undeveloped. Tier 1 also contains the bulk of the commercial land uses in Lehigh Acres, some of which- such as the models homes and small strip centers- may represent opportunities for redevelopment and the introduction of mixed uses and higher density housing. However, lacking in Tier 1 are elements of community structure, including definable neighborhoods, mixed-use centers, road hierarchies and civic uses. The County should accelerate development of the complete array of infrastructure, services, and community form-givers in this tier, with a goal to complete within a 10-year period.

Tier 2 – Partially Developed - Priority Area 2 (10-20 years)

Tier 2 consists of those areas immediately adjacent to Tier 1 where public facilities such as water and sewer are not fully available today, but where the provision of these public facilities should be prioritized in the second decade of the planning horizon, 10 to 20 years from adoption of the plan. Approximately 22% of the parcels in Tier 2 are presently developed. Because land costs are likely somewhat lower than in Tier 1, Tier 2 will likely continue to experience rapid growth. However, the absence of public facilities, the proliferation of septic systems, coupled with the distance to the commercial services and the discontinuous road network, will continue to compromise quality of life in Tier 2.

Taken together, Tiers 1 and 2 have a development capacity sufficient to meet the growth demands of Lehigh Acres for the next 25 to 30 years. Given this circumstance, combined with the significant cost to extend and maintain infrastructure in the sparsely developed sections of Lehigh Acres (Tier 3), future development in those areas should, at a minimum, be discouraged. Also, because Tiers 1 and 2 contain a substantial amount of undeveloped land, there are opportunities to incentivize the assembly of land for commercial and civic uses and for the introduction of higher density residential development, with the potential for density transfers from Tier 3 and/or the DR/GR.

Tier 3 – Sparsely Developed – Priority Area 3 (beyond 20 years)

Tier 3 consists of the extreme northern and eastern fringe of Lehigh Acres. This area is the least developed, with only 11% of the properties built upon, and is the lowest in zoned density due to the preponderance of one acre and half acre lots. This area has virtually no public services and facilities, little commercial uses and many roads that are in poor or very poor condition. Due to its remote location, sparse development, and distance from police and fire services, Tier 3 is highly vulnerable to crime and illegal activities. Because of its lack of livability and the overwhelming cost to provide public services and facilities, and because Tiers 1 and 2 have sufficient development capacity, the general policy for this area should be to discourage development and to provide minimal levels of public investment, other than public safety.

It is acknowledged that the vested rights agreements that are in effect likely would prevent an outright ban on development. For this reason, there are two possible scenarios that would seek to minimize additional development in Tier 3, while respecting existing vested rights agreements and Florida law:

A. Retention/Improvement of Existing Tier 3 Development Pattern

This scenario would seek to curtail development in Tier 3 temporarily, using all legal means available over the next 25-30 years or until Tiers 1 and 2 have approached buildout. During this time, Lee County, in coordination with the Lee County School Board and the East County Water Control District and other entities, will prepare Tier 3 for a more sustainable future, by acquiring and assembling land for commercial development, and developing schools, parks, stormwater management and other public services and facilities needed to support the complete buildout of Lehigh Acres, without changing the present pattern of platted lots, land use and streets.

B. Acquisition/Conservation/Environmental Restoration

In this scenario, vacant land throughout Tier 3 would be permanently set aside through acquisition and conservation programs, for the purpose of creating a "greenbelt" to serve mitigation, environmental remediation, and stormwater management functions. This effort should be collectively supported and carried out by a consortium of entities including the East County Water Control District, Lee County, Florida DEP and USACOE.

V.4 Areawide Development/Land Use Concept

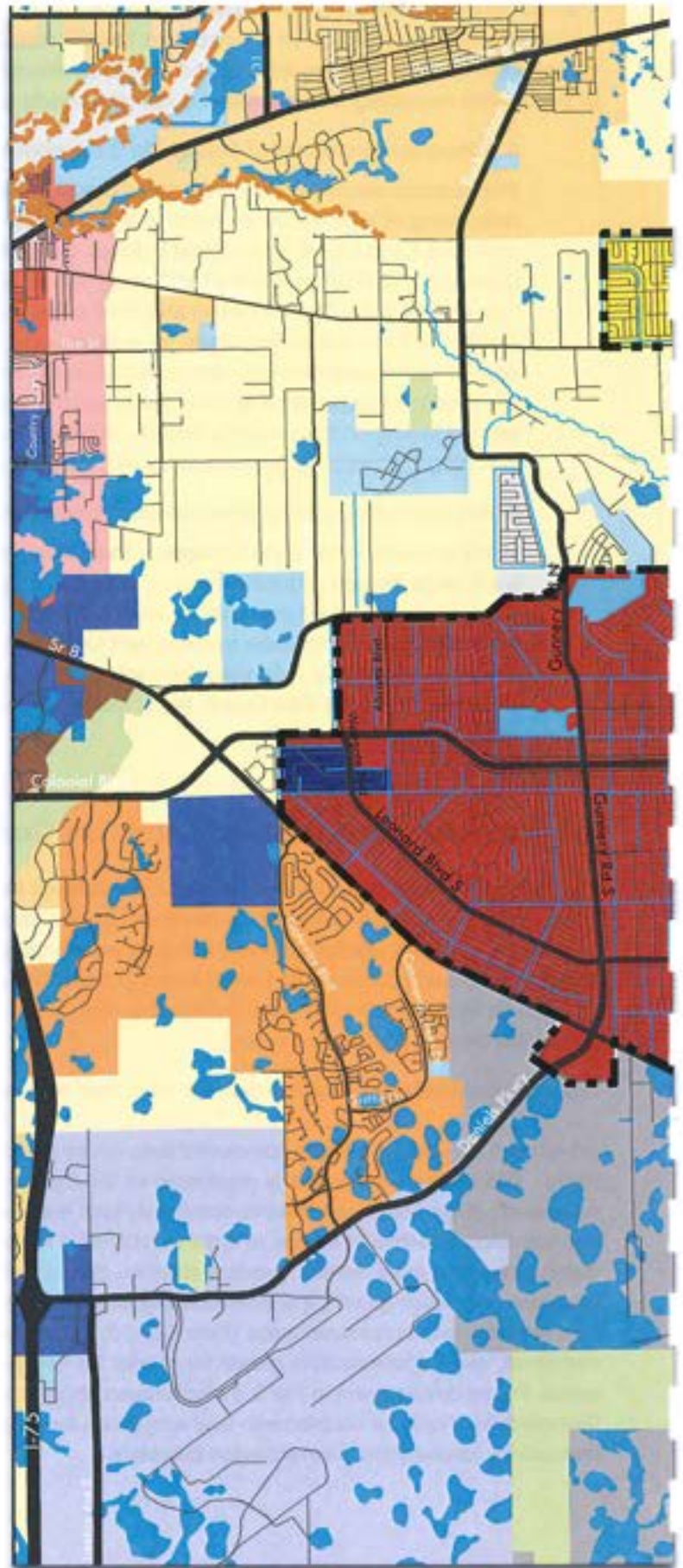
The Proposed Future Land Use and Development Concept Map depict the conceptual long-range development patterns and general distribution of land uses (Figure 37). Today, there is a noticeable disconnect between the envisioned land use character for Lehigh Acres—Central Urban area surrounded by Urban Community—and the development pattern and densities achievable through platting and zoning.

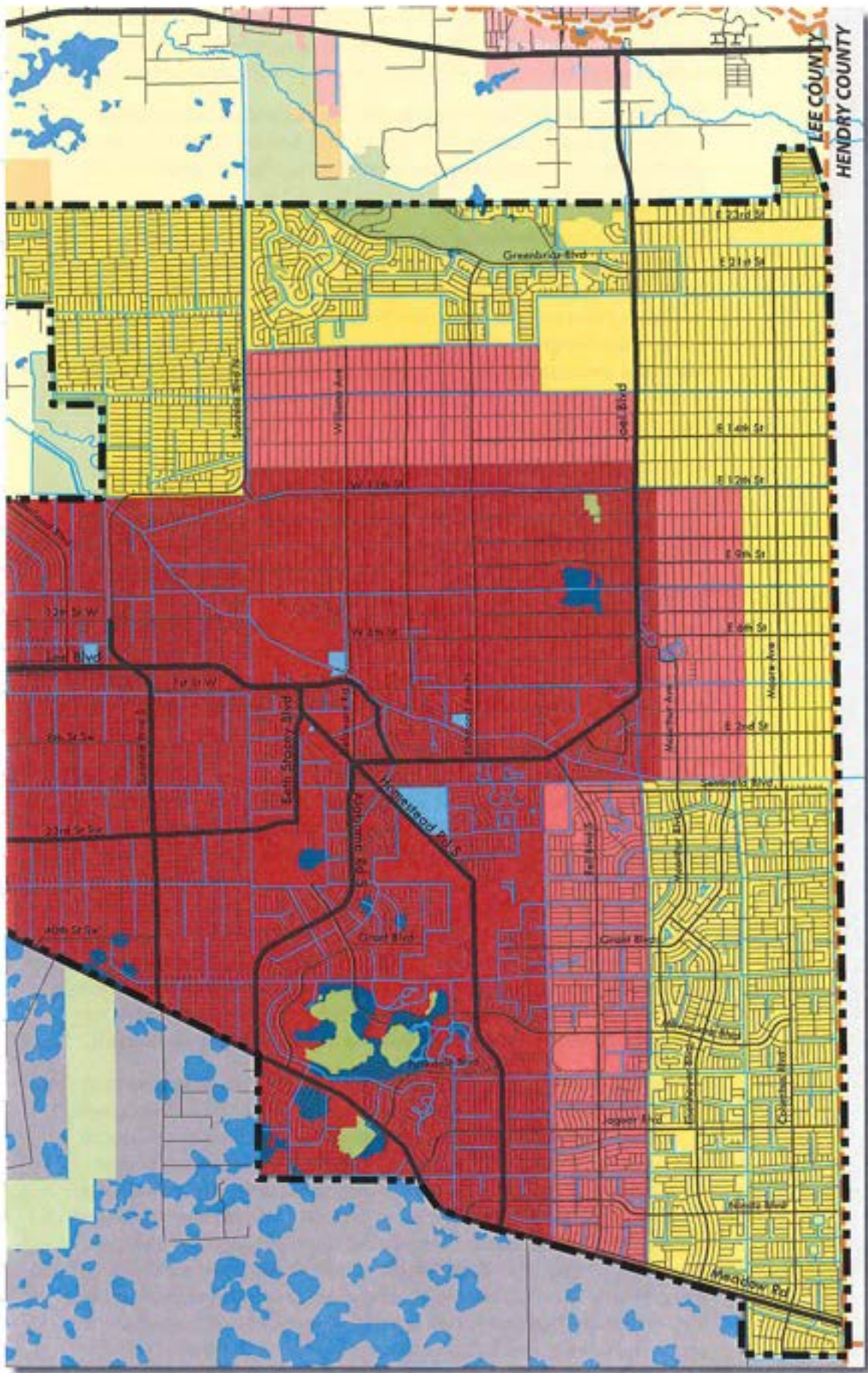
The proposed land use concept provides a "roadmap" for future development that can be phased in over time. It creates a framework for directing growth and for creating a viable community form where one does not exist today. The areawide framework is predicated on the notion of a smaller urbanized Lehigh Acres—an effective community land area reduced by approximately one-third of its size, in order to rationalize investment and development in a more realistic, practical manner. Based on the long-range projected population growth, it is estimated that existing vacant residential land available in the urbanized areas (Tiers 1 and 2) of Lehigh Acres will, combined, easily accommodate growth for at least the next two to three decades. Future development in Tier 3 is discouraged (though not prohibited). Disincentives should be coupled with land acquisition for mitigation, habitat restoration, conservation, and recreation purposes.

Figure 37: Proposed Future Land Use

Source: WRT based on Lee County GIS

- Central Urban
- Urban Community
- Lehigh Acres Outlying Suburban Overlay
- Intensive Development
- New Community
- Suburban
- Rural
- Industrial
- Airport
- Public Facilities
- Conservation
- Wetlands
- Density Reduction





It is also predicated on the establishment of a hierarchy of plan "units" (as described in more detail in subsection V.6), ranging from the community scale, to the corridor, to the neighborhood, and to the node or activity center.

The land use concept uses the same basic, broad land use designations that currently apply in Lehigh Acres, re-aligning their boundaries to coincide with the area of the community that is expected to urbanize within the time-frame of the plan.

Tier 1 and the southwestern portion of Tier 2 (now—with the exception of the westernmost portion—designated "Urban Community") are designated as the "Central Urban," calling for a full array of infrastructure and services to serve higher intensities of development. Allocating portions of Tier 2 to this land use designation will allow the introduction of incentives to higher residential densities and a broader range of housing types (townhomes and apartment buildings), to disperse the concentration of duplexes and single family homes in this area.

While the remaining portions of Tier 2 (to the north and east of Tier 1) are also expected to urbanize within the timeframe of the Plan, they are expected to do so at a lower pace and to remain more suburban in character, consistent with the parcelization pattern. Therefore, these areas are designated as Urban Community. They will serve as a transition between the Central Core and the sparsely developed, sparsely improved Tier 3, which is proposed to be redesignated as the "Lehigh Acres Outlying Suburban Overlay." This new Comprehensive Plan special overlay designation is described in more detail in Section VI, Implementation, and is one of the recommended amendments to the Lee Plan and the Future Land Use Map.

While the Future Land Use Map depicts generalized land use categories, each one of these categories can accommodate a range of specific land activities and development types, which are illustrated in the next section of this report. For example, the older urban core of Lehigh Acres—generally extending between Sunshine Blvd. North and Joel Blvd., north and south of Lee Blvd./Leeland Heights, south on Beth Stacy Blvd. and Alabama Rd.—is identified in the Concept Plan as the community's "downtown." It is the most densely developed, most established in terms of land use mix, infrastructure, services, facilities, and landscaping. There are also areas within the downtown that run the gamut from the comfortably mature to the vulnerable and declining. The downtown area offers significant opportunities for infill and redevelopment at higher densities and a higher design standard.

For commercial land uses, the concept plan proposes the development of commercial nodes as part of a new framework of mixed-use activity centers, to be located at key points—generally the intersection of major arterials, or arterials and collectors. These centers or nodes will be the areas of most intensive development within the community, and collectively are estimated to satisfy between 30 and 50 percent of the 2030 projected commercial and employment acreage demand (between approximately 300 and 500 acres, developed at higher intensities than the current development pattern). Even more important than the amount of commercial or employment land acreage they will provide, these nodes will expand convenience and accessibility to goods and services needed by residents on a day-to-day basis at the area-

wide and neighborhood scales. If appropriately located and designed, these nodes can help increase the range of housing types; create new venues for local employment; expand access to public services; increase recreation opportunities; and provide alternative transportation options.

The nodes offer a viable alternative model to address the existing conditions and counteract the prevalent pattern of strip commercial development along major Lehigh Acres' major roadway corridors (specifically, Lee Blvd. and SR 82). The approach is to instead promote the development of transitional higher density residential uses (specifically townhouses or, where appropriate apartments, as shown in Figure 40) along most of these frontages, while concentrating the commercial uses around the key intersections on larger (assembled) parcels that provide better property depths and therefore opportunities for more creative site design. Higher density housing options are also encouraged as part of the land use mix within the nodes. Additional density to build the critical mass of these nodes may be transferable from Tier 3, or perhaps from the DR/GR.

Two major types of nodes are contemplated: *Community-Scale Mixed-Use Centers*, which are shown at two key intersections on Lee Boulevard and two on SR 82 (in both cases, the intersections of these roads with Gunnery Rd. and Sunshine Blvd.); and *Neighborhood-Scale Mixed-Use Centers*, which are shown occurring along the improved 12th Street (Lockett Rd. extension project, which may provide well-timed opportunities for assembly of land for commercial uses) and at some intersections along SR 82. The size of these centers will range between 50 acres (Community scale) and 15 (Neighborhood scale). The proposed development character and proposed land use pattern of two of these nodes are depicted in more detail in the next section of this report.

The intersection of Gunnery Road and SR 82 offers a special opportunity. Not only is it a major access point into and out of Lehigh Acres, but a significant amount of vacant land is available on the south side of the highway. The size, access and visibility of this location suggests the potential to create a gateway designed around an employment/ commercial center to serve Lehigh Acres residents.

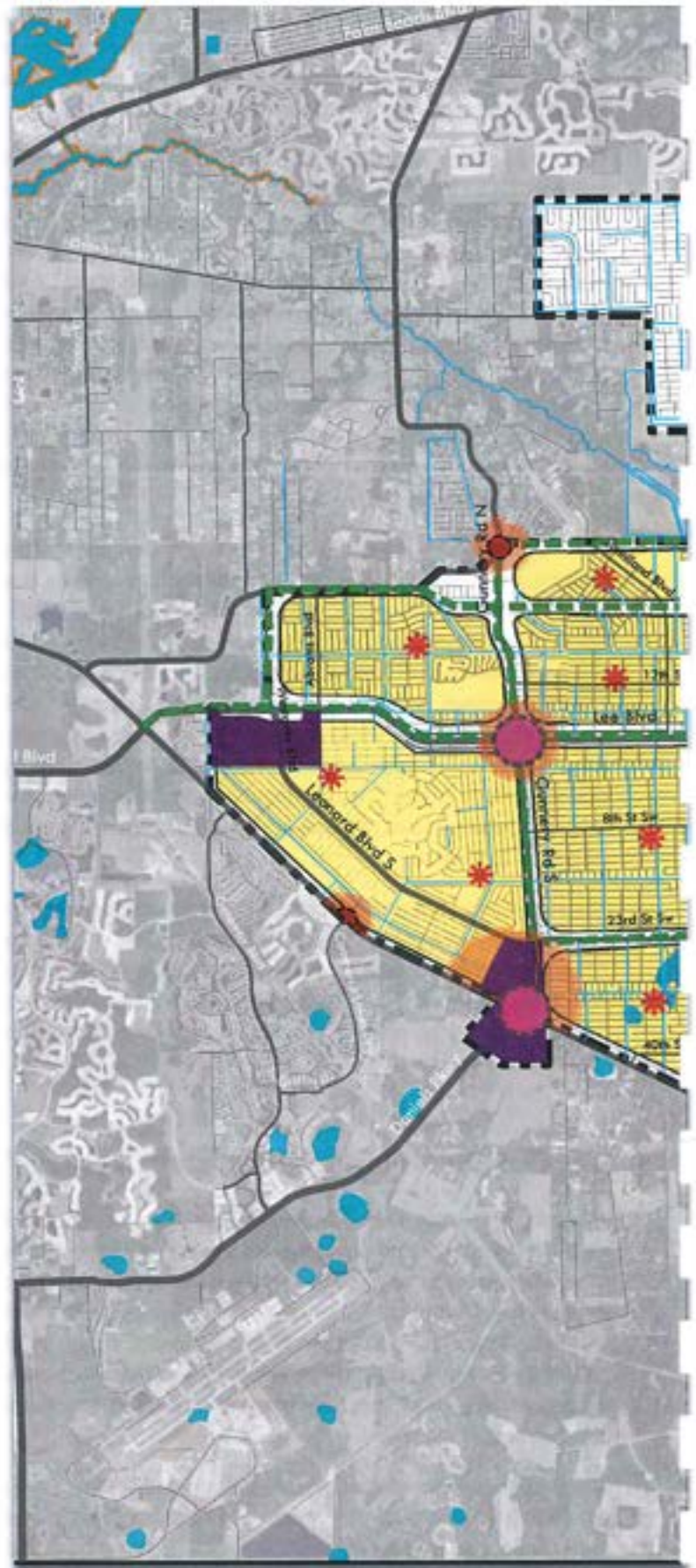
V.5 Community Structure/Urban Design Framework

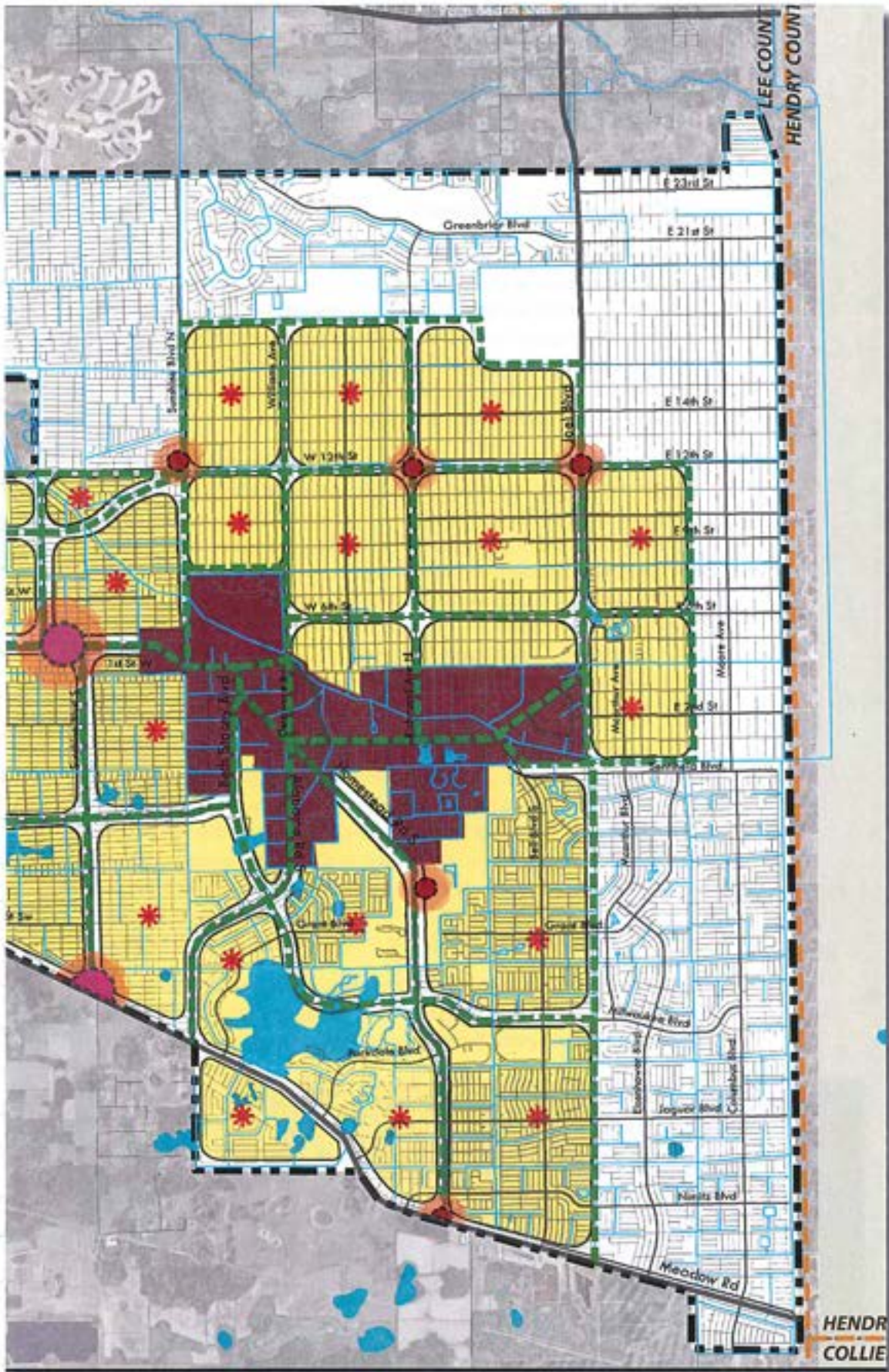
While a grid system is seen by many urban planners and designers as an ideal transportation and development system, at Lehigh Acres the grid has been carried to an extreme, creating a monotonous and disorienting environment. Almost every street has a similar character, and a thru street is virtually impossible to discern from a dead-end street. Further, there is uniformity in the "blanket" of single-family parcels, which does not allow for significant variations in housing types or other uses (institutional, commercial, recreation, etc.).

The proposed urban design solution, illustrated in Figure 38, establishes a hierarchy of community modules or units to impose structure, introduce form-givers, and create "places." At the same time, the framework has built-in flexibility, allowing its multiple components to be assembled in different

Figure 38: Community Structure
 Source: WRT based on Lee County GIS

-  Proposed Neighborhood Mixed-Use Center
-  Proposed Community Mixed-Use Center
-  Existing or Proposed Employment Center
-  Proposed Local Activity Centers
-  "Downtown" Lehigh Acres
-  Proposed Parkways
-  Lehigh Acres Study Area
-  County Boundary





manners, like a puzzle, to fit the conditions of a specific location. The proposed "units" serve as prototypes—as models—but each location must be examined more closely, and each will be a variation of the "idealized community structure." These variations will be the factor that gives each location its own identity and sense of place.

Following is a description of the Urban Design Framework elements:

Street hierarchy (parkway system)

First, the framework identifies streets that are, or will become arterials or collectors, and proposes to give them a character that is different from that of local streets. To create a hierarchy of streets where none currently exists, the main arterials and collectors should be developed or retrofitted as "parkways," with a median (preferably landscaped) in the center. The "parkways" will be a signal to the driver that these are "through streets" and will not lead to the dead end of a canal (refer to Figure 38)

At the intersections of some of the parkways, roundabouts are proposed as a traffic-calming device at key locations, as well as to punctuate the monotony of the endless grid. These roundabouts could be further set up as gateways to the community (at the edges), or to specific neighborhoods (internally) through the introduction of a vocabulary of landscaping or water features. It should be noted that, although reviewed by the Consultant team's Traffic Engineer, the roundabouts shown on Figure 38 are strictly conceptual. To determine the appropriateness of the recommended locations, sizing, and engineering design, feasibility studies will have to be conducted later.

Essentially, the parkways will serve to delineate the boundaries of smaller "building blocks" that bring down the massive expanse of Lehigh Acres to a more manageable (for example, in terms of capital investment) and more "human" scale (as described below in more detail). Each building block or unit is likely to comprise several neighborhoods (neighborhood clusters) based on size. In turn, each cluster and each neighborhood will have its own internal structure, built on the same principles as the larger units—street hierarchy, a more balanced mix of uses, and a "center." (refer to Figure 39)

New parkways can be developed in conjunction with planned roadway improvements (for example, the Lockett Road extension/W. 12th Street improvement; or the North Gunnery Road improvement project). Existing



Parkways will serve as a navigational wayfinding system and will help to delineate and identify smaller community units

roadways can also be retrofitted as parkways in a phased approach. The first phase of a retrofit project could be the introduction of a median within the existing right-of-way (one lane on each side of the median), whereas landscaping, additional lanes, sidewalks, curbs, etc., could be phased in over time.

Neighborhood clusters

Within the framework of the larger parkway grid, neighborhoods, or neighborhood clusters, will be encouraged to infill and develop over time to create their own unique identity (Figure 39). The conceptual parkway grid creates "modules" that average a little more than a square mile (640 acres) in land area. After deducting for complementary uses (nonresidential), these modules could accommodate a population ranging between 6,000 and 10,000 residents at full build-out—approximately the population of a small town.

Small, mixed-use activity centers are proposed at the heart of each of these clusters, to include neighborhood-scale commercial and institutional and civic uses (churches, elementary schools, government offices, etc.). These activity centers will allow residents to reduce some of their automobile trips by providing at least basic services within a short distance—short enough to allow bicycling and walking. The primary anchor of these small centers would be a public park, the size of which can vary depending on land availability and the needs of the community that it will serve. Generally, their size will range between 5 acres and 25 acres. Ideally, the school will be located adjacent to the park, and both can share use. Along the edges of the neighborhood clusters—at key intersections along the parkways—higher density housing (e.g., townhouses and apartments), larger-scale commercial and

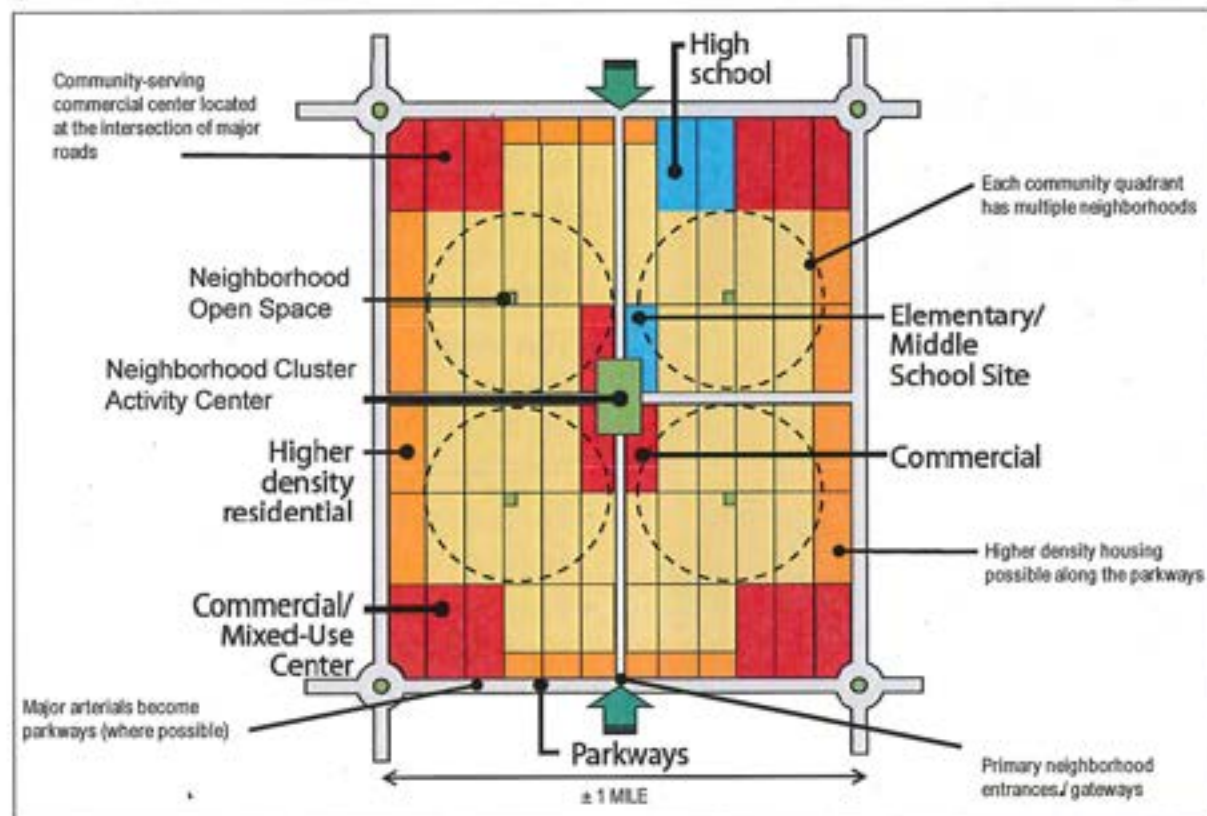


Figure 39: Neighborhoods and Neighborhood Clusters

larger community-serving institutions (high schools, hospitals, etc.) are encouraged.

The zoning pattern may need to be modified inside these activity centers to allow the appropriate uses at appropriate locations. Development and design standards may also need to be changed or augmented to incentivize the desired development pattern, and to ensure that they encourage a pedestrian friendly development pattern and streetscape. These changes could also be implemented through the establishment of new overlay districts (or modification of existing ones, where applicable), or the creation of floating zones that can be approved on a case-by-case basis. A floating zone is an unmapped district that may be superimposed on one or more established underlying zoning districts typically to define a use that the community wants to encourage. The floating zone can be affixed to a qualifying parcel of land, either upon the application of the parcel's owner or upon the initiative of the local government. Upon approval, the parcel is rezoned to reflect the new use and becomes a separate zoning district as an amendment to the Zoning Regulations.

The County may want to explore the future feasibility of establishing an acquisition program to purchase vacant land (through a land bank or a limited-scale CRA, for example) at suitable locations, providing developers the additional incentive of pre-zoned, pre-assembled property.



What makes a great neighborhood?

- Has a variety of functional attributes that contribute to a resident's day-to-day living (residential, commercial, mixed-use, walk-to recreation, community facilities/institutions)
- Accommodates multimodal transportation (pedestrians, bicyclists, drivers)
- Has design and architectural features that are visually interesting and distinguish it from other neighborhoods
- Encourages human contact and social activities
- Promotes sustainability and responds to climatic demands
- Has a memorable character

Activity centers

The purpose of the activity centers is to encourage a mix of business, residential and civic uses at key locations throughout the community, in a compact physical arrangement that is safe for pedestrian, vehicular and bicycle traffic and that provide alternatives to conventional commercial sprawl. Generally, in these activity centers development is spatially defined and concentrated in a nodal pattern, providing an alternative to conventional strip commercial. The establishment of an activity center does not create a precedent for higher density or higher intensity zoning or uses between the nodes or intersections where the activity centers are located.

There are three types or scales of activity centers proposed in the Concept Plan. While these are conceptually similar in function and mix, they are differentiated by the land area, balance of uses and intensity of the development permitted at each one of them.

The first of type of node, the Community Mixed-Use Center (CMUC), occurs at the intersection of two arterials—locations identified include Lee Blvd. and Gunnery Road, SR 82 and Sunshine, Lee Blvd. and Sunshine, SR 82 and Sunshine (Figures 40 through 43). The CMUC are denser, dense, predominantly commercial areas with uses that serve several neighborhood clusters or the community at large. Generally, CMUC will contain predominantly commercial surrounded by higher density townhome and multifamily housing. They may also include mixed-use development with offices and/or residential above ground level retail shops. Public uses and facilities and residential uses are also appropriate in CC areas. Although these areas will not be within walking distance of most of its market audience, pedestrian activity is encouraged internally once users arrive at the CMUC.

The second type of node, the Neighborhood Mixed-Use Center (NMUC), generally occurs at the intersection of minor arterials, or of an arterial and a collector street (Figure 44). They are small, intense areas that may contain multiple functions and are intended to act as centers of activity for a smaller area, probably consisting of some share of the surrounding neighborhood clusters. The service radius may be about 1 mile, making them walkable for a good segment of the market area, but a short drive for areas in Lehigh Acres that do not currently have this convenience. The key types of uses intended within NMUC areas are those that meet daily convenience needs (small grocer, drugstore etc.) and/or provide a place to gather and socialize.

The last type of node is the local Activity Center (AC). These are very small “walk-to” area within a five- to ten-minute walk (1/4 to 1/2 mile) of the surrounding neighborhood it serves (Figure 45). A local AC may consist of no more than a single-use or mixed-use “neighborhood-scale commercial” development (for example, corner store, dry cleaner, coffee shop, barbershop or hair salon) on one corner of an important neighborhood intersection. Although small-scale commercial is scarce in modern times, the opportunity to walk five minutes to a corner store for a quart of milk and a newspaper presents residents with an alternative to getting in a car driving a couple of miles for the same items. A small park or civic open space should be the anchor for each AC.



Figure 40: Proposed Land Use of Lee Boulevard - Gunnery Road Community Mixed-Use Center





Figure 41: Lee Boulevard - Gunnery Road - Community Mixed Use Center Concept (Node)



Commercial (Mixed Use Node)



Townhome Potential Prototype



Figure 42: Proposed Land Use of Gunner Road-SR 82 Community Mixed-Use Center





Figure 43: Gunnerly Road-SR 82 Community Mixed-Use Center *(Node)





Figure 44: Bird's Eye View of the SR 82 Community Mixed-Use Center at Water's Edge



Figure 45: Street View from the SR 82 Community Mixed-Use Center



Figure 46: Neighborhood Mixed-Use Center

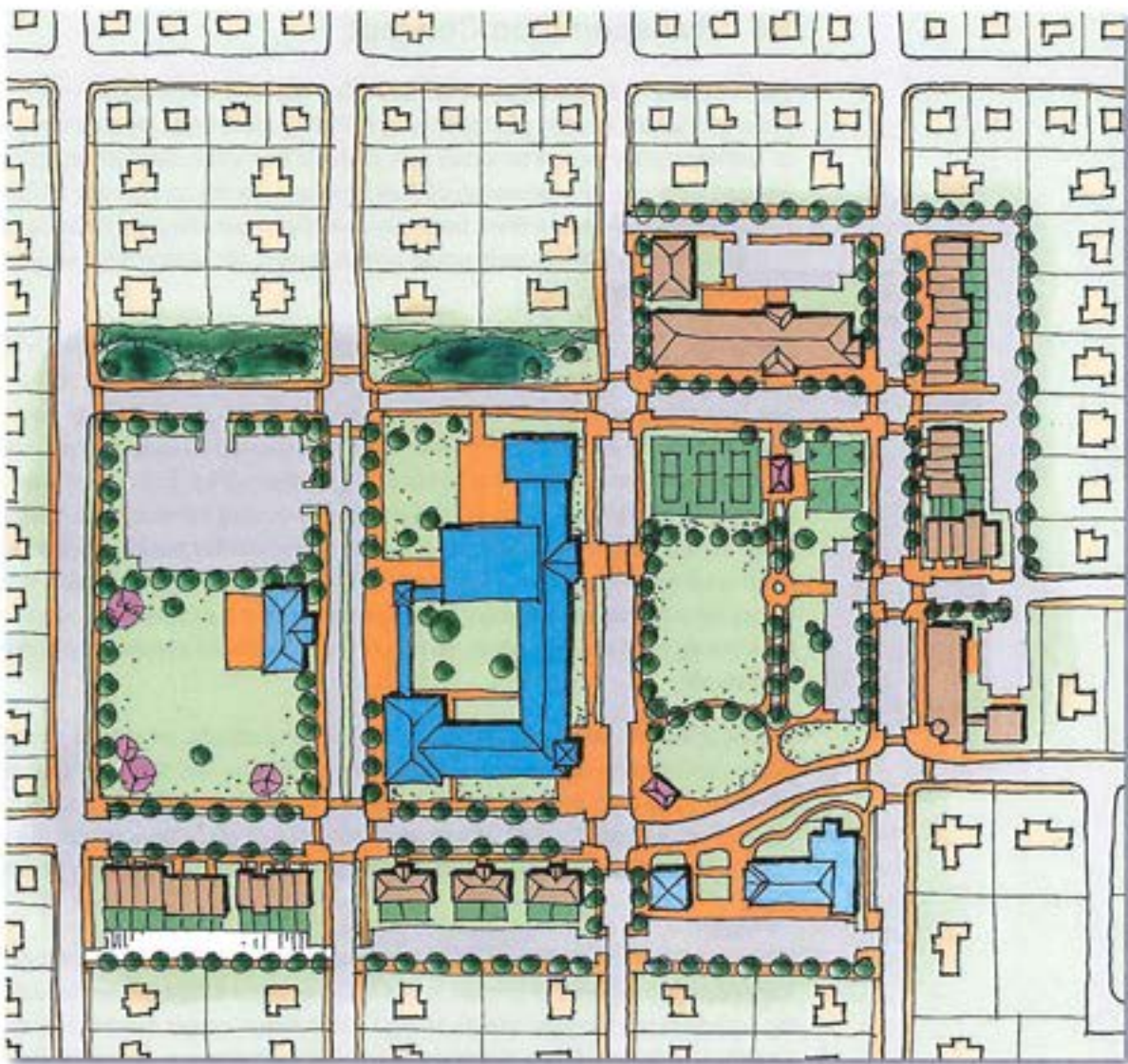


Figure 47: Local Activity Center

V.6 Transportation Concept

The proposed transportation network (Figure 48) includes a number of projects that are already planned by Lee DOT or the Florida Department of Transportation as well as some new projects that will create additional arterials (including an extension of Joel Boulevard to the south, and an improvement of Milwaukee Blvd. between Joel Blvd. and Alabama Road) and collectors to expand the north-south and east-west circulation alternatives within Lehigh Acres.

Additionally, the transportation concept recommends five new bridges in the area between Gunnery Road and Beth Stacy Blvd., 15th Street and 32nd Street to improve the continuity to the existing network, as well as an additional bridge on 40th Street between Anita Avenue and Paisley Avenue, connecting to Alabama Road. It is acknowledged that construction and maintenance of bridges in Lehigh Acres has been provided either by Lee County or by the ECWCD. This study does not assign or identify the anticipated role or responsibility of each agency in undertaking future bridge improvements. It may be advisable to consider the establishment of a protocol to coordinate the agencies' future efforts to be consistent with the proposed planning framework.

The hypothetical locations of traffic-calming roundabouts, proposed as part of the recommended network of wayfinding parkways, are also depicted on the map. The map also shows the locations (at the intersections of Sunshine Blvd. with 8th St. SW, and 23rd St. SW) of two roundabouts that the County is currently designing and for which the right-of-way is being negotiated.

While not depicted on Figure 46, the notion of an integrated, multi-modal transportation network is implicit in the framework for long-term sustainability. A system of complete streets along Lehigh Acres' major roadways (i.e., Lee Blvd., Gunnery Road, Sunshine Blvd., Leonard Avenue, Alabama, Beth Stacey Blvd., Homestead Road, Leeland Blvd., Bell Blvd., Joel Blvd., the proposed Lockett Road extension or those proposed to be retrofitted as parkways in the Community Structure concept, Figure 38) is the long-term goal of this plan—integrating a continuous, well-designed network of sidewalks, bike lanes, paths, or at least paved shoulders that can safely accommodate bicyclists, transit-riders, and accommodating the needs of the elderly and individuals with disabilities and mobility challenges—particularly in the Central Core and surrounding Urban land use districts. The first step to achieve this, among other measures, may be to prepare a Complete Streets or Sidewalk and Bicycle Facilities Master Plan, focused on Lehigh Acres. The purpose of this plan should not be to duplicate the projects recommended in the County's Greenways Master Plan and other County plans, but to complement them with utilitarian (not only recreational) facilities to serve key sectors of the community, to enhance network connectivity, improve safety for all users, and offer alternate routes and mobility choices. Improvements may then be funded through the creation of a municipal special taxing or benefit unit or other type of special assessment district; through the establishment of "level of service" standards that need to be met in all development for pedestrian and bicycle facilities; through private/public partnerships between

the County and developers; and by pursuing every opportunity to obtain funding for projects through grant awards, including, for example, SAFETEA-LU or successor programs which may be authorized as part of or separately from the Administration's Economic Stimulus Package. Similarly, every effort should be made to ensure that the recommendations of the Lee County Transit Plan regarding the introduction of a Lehigh Circulator and more frequent bus service runs be implemented in a timely manner. Some of these objectives will become more financially feasible as the Core and Urban area become denser and reach a critical mass to support and justify the costs.

Finally, the conceptual nature of these recommendations must be emphasized. While the proposed improvements were widely discussed, reviewed with, and endorsed by the Consultant team's Traffic Engineer, no traffic studies or modeling were performed as part of this effort. Therefore, the feasibility, alignments or locations, and specific design of each of these improvements has not been determined through this study, and will require in-depth engineering studies.

V.7 Community Facilities

In response to the projected deficit of community park land in 2030, the Concept Plan identifies three potential, general locations for future facilities to meet this need, based on service area (Figure 49). Exact locations could be identified in coordination with other open space and recreational initiatives, such as Conservation 20/20, or the potential acquisition of sites by the East County Water Control District for improved stormwater management.











There are no neighborhood parks in Lehigh Acres today, nor are there any requirements for them in the Lee Plan. However, given the future scale of the total future population of Lehigh Acres, consideration should be given to an "opportunistic" approach to developing neighborhood-scale parks, as described in the Community Structure/Urban Design Framework. The service area and size of population that these facilities typically serve is generally much more limited than that of a community park, and land at this scale—potentially as small as a few lots at a key location within a neighborhood—can be more easily and inexpensively secured than larger tracts or significant lot assemblages.

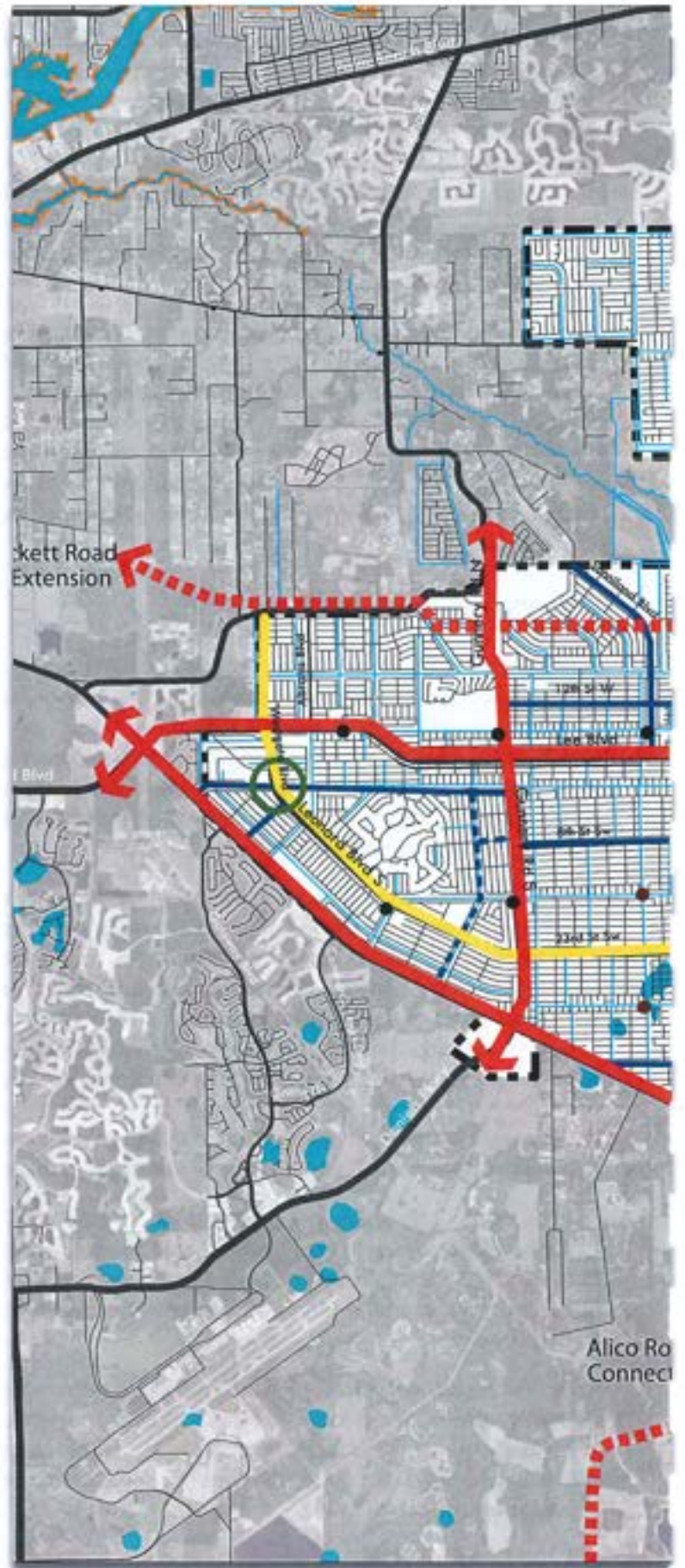
Further, in lieu of identifying and purchasing many small sites throughout the community, Lee County should coordinate with the ECWCD to identify joint opportunities for developing neighborhood-scale parks as part of land acquisition efforts for stormwater management purposes.

Another opportunity for developing the green infrastructure system in Lehigh Acres is represented by the existing canals. The right-of-way of the major canals, in particular the Able Canal, appears to contain sufficient excess land along side the canal itself to allow development of pedestrian paths.

Figure 48: Proposed Transportation Network

Source: Lee County GIS, Lee DOT, MPO
2030 Long Range Transportation Plan

-  Existing Primary Arterials
-  Existing Secondary Arterials
-  Existing Collectors
-  Proposed Primary Arterials
-  Proposed Secondary Arterials
-  Proposed Collectors
-  LeeDOT Proposed Round-Abouts
-  Potential Round-About Locations
-  Existing Bridges
-  Proposed Bridges



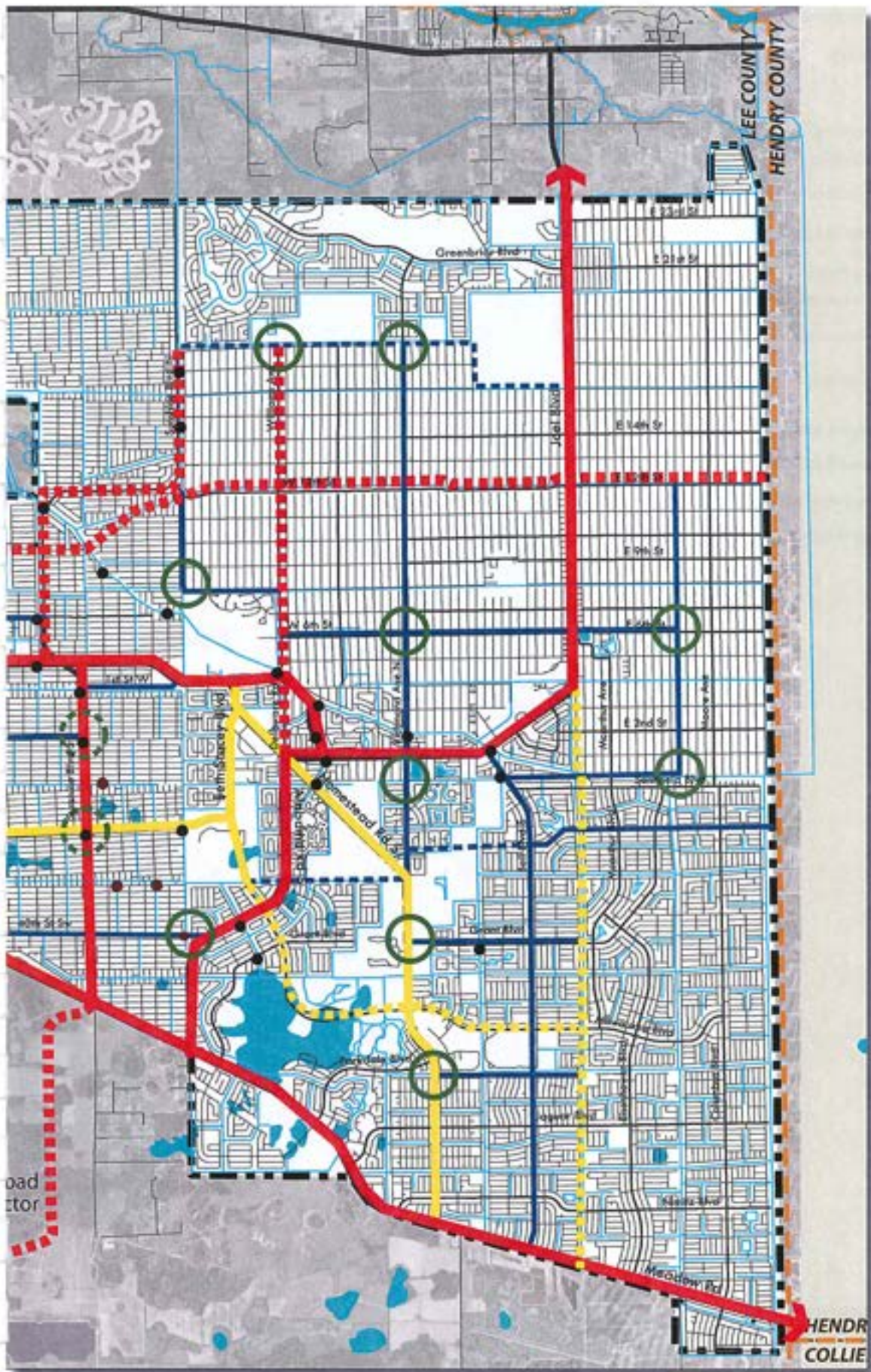
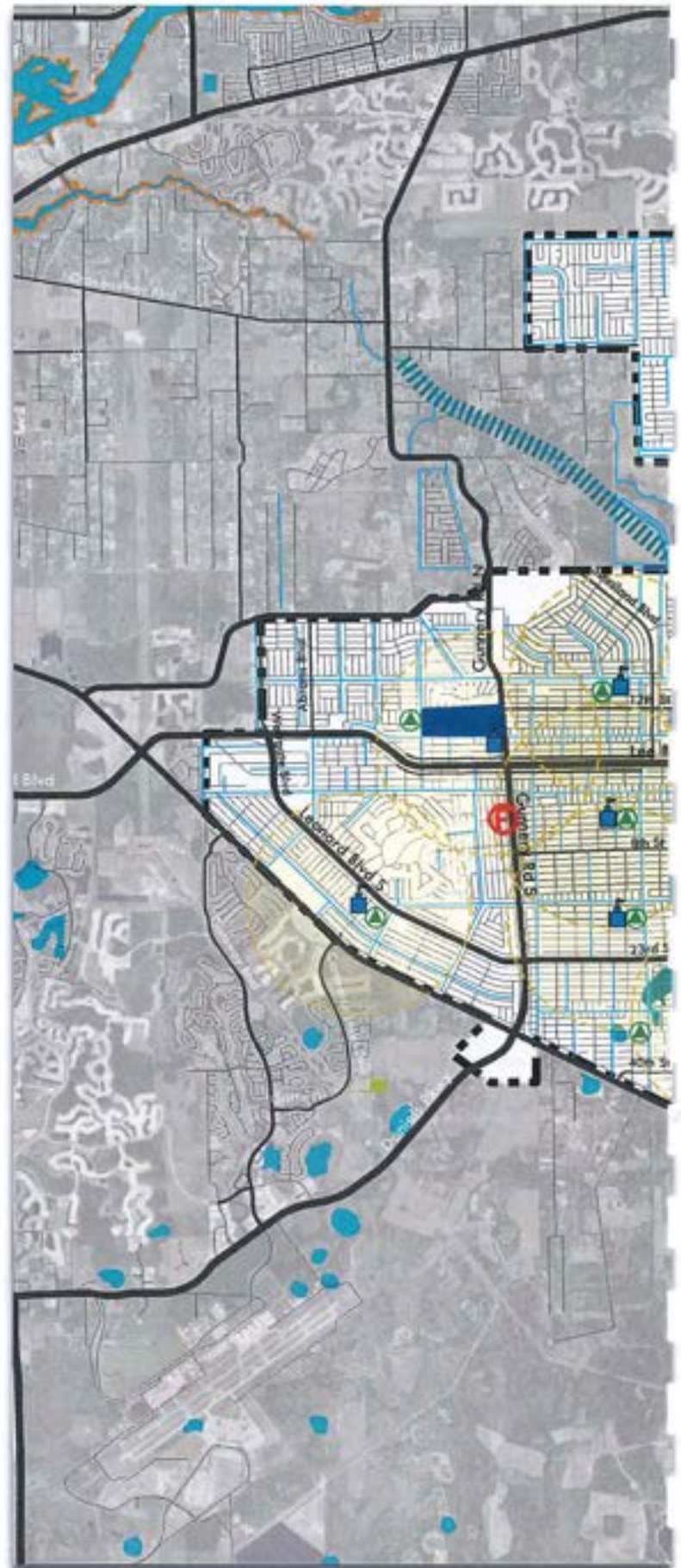
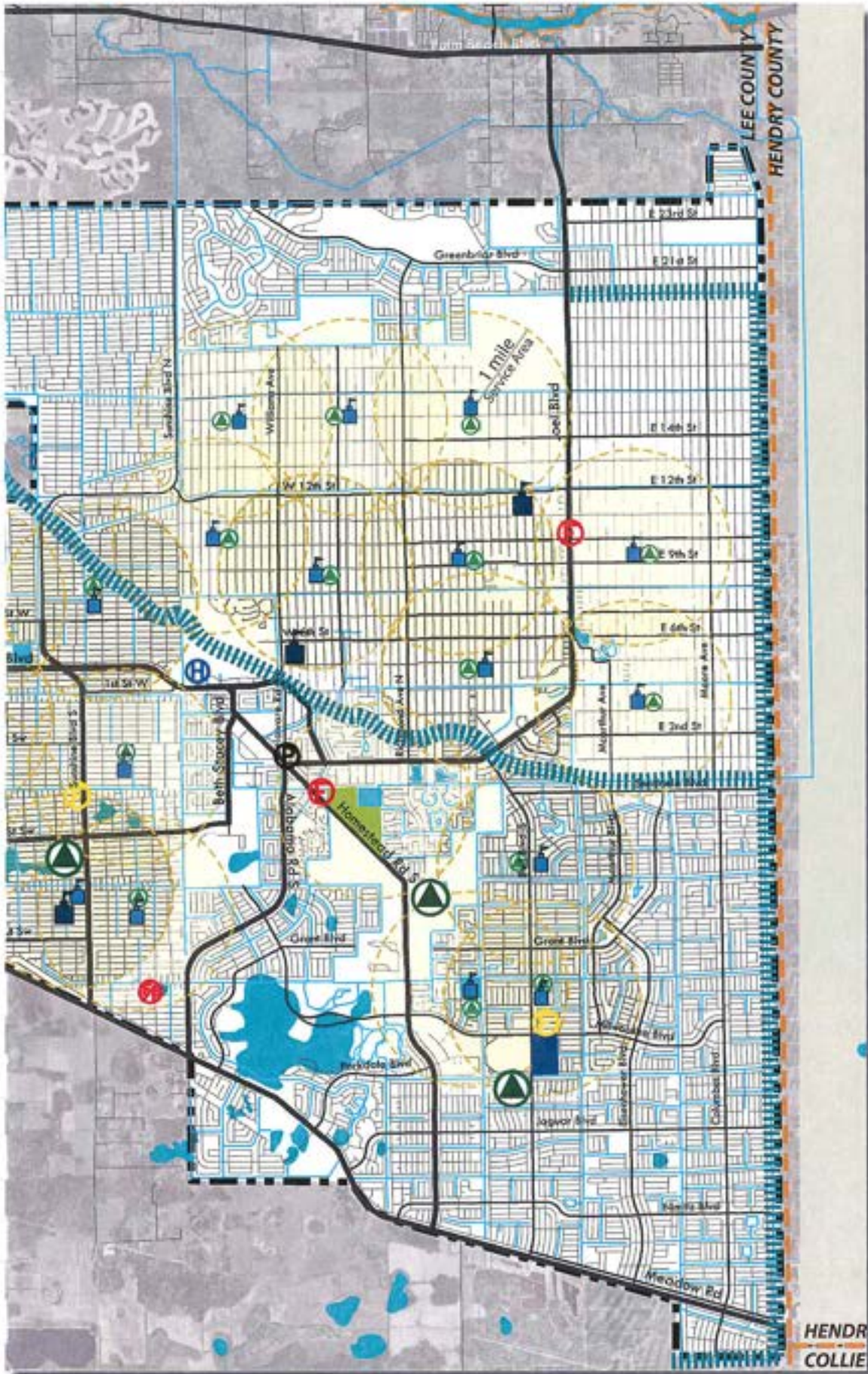


Figure 49: Proposed Community Facilities

Source: Lee County GIS

-  Existing Elementary Schools
-  Existing High Schools
-  Potential Elementary / Middle School Sites
-  Potential High School Sites
-  Existing Parks
-  Potential Neighborhood Parks
-  Potential Community Parks
-  Proposed Trails
-  Existing Fire Stations
-  Proposed Fire Stations
-  Existing Police Stations
-  Existing Hospital







SECTION VI
IMPLEMENTATION FRAMEWORK

VI.1 Action Strategy

Plans are turned into reality by taking action on them. The previous sections present numerous strategies designed to bring about the positive future for Lehigh Acres envisioned by residents. These strategies range from amended regulations to broad pragmatic initiatives; from potential changes in administrative practices; to recommendations for additional in-depth studies, to major capital improvements. The recommendations, while varied, are not mutually exclusive, and are, in fact, more likely to be effective if looked at as a bundle of complementary actions. Implementing these actions will require not only resources that exceed the current capacity of the County (and probably any individual governmental or private entity), but also political will and the steady support and drive of the Lehigh Acres community.

Even if all these elements could be aligned at once, the transformation of Lehigh Acres should not be expected to occur overnight. It will likely require several decades to realize, due to the magnitude and complexity of the issues and conditions that need to be addressed. For this reason, it is important to establish a realistic implementation program if the plan is to be effective. The implementation program consists of a sequence of actions, projects, or initiatives that can or should be initiated or completed within a particular timeframe. Those that are labeled as "short-term" are actions that can be initiated immediately, or that can be completed within a short timeframe (1-2 years). They generally involve no new capital investment commitments, but rather include enactment of regulatory measures and development standards, investigation of funding sources, intergovernmental coordination and agreements, or more detailed plans or studies. "Medium-term actions" are those that involve larger-scale projects or programs, which may not be initiated immediately due to planning or funding needs, and/or which will require several years (2-5) to complete. Long-term actions are those not expected to begin for at least 5 years, or which will require in excess of 5 years to complete. Some actions will also result in continuing or ongoing programs that have no end date.

The action strategy is not intended as a definitive prescription, but rather is a guide to decision-making that sets priorities and identifies the general phasing of plan recommendations. It does not preclude actions from being implemented earlier or later, if the time and resources to address them suddenly become available or are delayed.

The action plan can be summarized as follows:

Short - Term Actions

- Explore cost-effective land acquisition opportunities that may present themselves through the escheatment process. Where these opportunities exist and can be capitalized on, plan for the aggregation of land for needed community facilities or to incentivize private development of commercial or employment uses. Coordinate "tax forgiveness" efforts with the School Board, Fire District, SFWMD and ECWCD.
- Proceed with the plan's recommended Future Land Use Map and Comprehensive Plan Amendments (described in detail in the next section of this document).

- Begin to incorporate and establish elements of the proposed community structure (e.g., mixed use centers) into the zoning and land development regulations; subdivision regulations; and other regulatory and planning mechanisms.
- Incorporate consideration of the location of capital improvements relative to the tier system as one of the factors that determine project funding priorities.
- Proceed with zoning amendments that incorporate design/site development standards for new duplex and commercial development (described in detail in the next section of this document).
- Identify and adopt appropriate incentives (these may range from relatively simple things such as fast-track permitting or reduced permitting fees; impact fee reductions; to more costly and complex options such as support/assistance with land assembly (see previous page) or spearheading infrastructure improvements) for infill development in Tier 1, especially the area identified as "downtown Lehigh Acres" in the community structure.
- Work with Health Department to discourage/halt approval of septic tank variances, and to close regulatory loopholes that allow the construction of two septic tanks on a single 1/4-acre or 1/3-acre lot (e.g., advocate review of current definitions).
- Amend zoning / land development and urban design standards for Lee Blvd. and SR 82:
 - * discourage model home development by making its approval subject to the special exception use process,
 - * require greater site depths (back to back lots) for commercial development to achieve better development configurations
 - * establish site circulation standards to meet access management requirements (including shared drives, connected parking lots, etc.)
 - * revisit the land use mix/list of permitted uses on some corridor segments to promote/incentivize townhome-style development, and



Development and design standards for arterial corridors - Lee Boulevard

- * immediately rezone land in the "nodes" to commercial with a "mixed-use" overlay.
- For commercial development along these two corridors and elsewhere, additionally amend zoning / land development and urban design standards to address:
 - * improved landscape and parking standards,
 - * shared access and connectivity,
 - * pedestrian amenities,
 - * building siting / orientation, and
 - * building design.
- Amend zoning / land development and urban design standards to regulate new duplex development:
 - * more stringent landscape, on-site parking, and building design standards



Commercial redevelopment along Homestead Road



Standards for duplex development (retrofitted site)

- * require the creation of mid-block alleys and rear-facing garages in new development.
 - * regulate the design treatment of septic drain fields (establishing grading requirements or maximum slopes to avoid the unattractive "mounded look" prevalent in some sectors of Lehigh Acres).
 - * require varied building types/mix (e.g., townhomes) and articulation of the facade of duplex structures to resemble a single-family structure.
 - * require the incorporation of Crime Prevention Through Environmental Design techniques.
 - * prohibit additional duplex zoning.
- Consider expanding existing nonconforming structure provisions of the Land Development Code to existing duplex structures that do not comply with the amended duplex development standards once those standards become effective. One option is to allow the property to remain in its nonconforming status until the owner applies for a building permit (e.g., for activities defined as "development" versus "maintenance"). At that time, the use would have to be brought into compliance (a ceiling of cost may be adopted; for instance, up to a certain percentage of the assessed value of the property). Another option is to establish an amortization schedule for owners to bring the use or the structure into compliance. Amortization is a mechanism allowing for the removal of a nonconformity after the value of the non-conforming use or structure has been recovered—or amortized—over a period of time (e.g., three years). Since the value of the use or structure has been amortized, no compensation is payable after the expiration of the period. The defensibility of this application, as well as the appropriate amortization period, should be determined by Lee County attorneys. There are two principal methods for determining the amortization period: (1) the fixed period approach and (2) case-by-case methods, the most common of which is called the "recoupment of investment" method. The fixed period approach has been applied to signs and modest structures in which there is minimal investment. The recoupment of investment approach has been used successfully to remove nonconformities with more substantial value.
 - Coordinate with the DR/GR efforts to reconnect the Estero, Imperial and Six Mile Cypress headwaters, if feasible, with their south and westerly predevelopment flow.
 - Define the alignment of the Lockett Road extension and begin to notify affected property owners. To the extent allowed by law, discourage new construction on the affected parcels, and explore the possibility of land swaps for lots that may be recovered elsewhere through the escheatment process.

Medium - Term Actions

- Initiate studies for the creation of voluntary municipal special taxing or benefit units (MSTU or MSBU) to fund capital improvements in Tiers 1 and 2. Sec. 27-61 authorizes the creation of municipal service taxing or

benefit units in specific areas of unincorporated Lee County for the purposes of providing municipal services. Lehigh Acres already has in place one such district to provide street lighting; new districts could be created to fund the construction of sidewalks and similar improvements.

- Initiate dialogue with ECWCD, FGUA, Health Department, School District to coordinate actions geared toward joint land acquisition efforts, infrastructure extensions etc.
- Explore establishing a "Septic Tank Maintenance District" in Tier 3, following the criteria and recommendations of the SWFRPC Water Quality Subcommittee.
- Determine the feasibility of establishing a transfer of development rights program from sending zones in Tier 3 or, potentially, DR/GR, to identified receiving zones in Tiers 1 and 2 or areas outside of Lehigh Acres that are suitable to accommodate, or are experiencing pressure for, higher densities.
- Develop integrated "green infrastructure" open space system – including linear canals parks and linkages. Consider preparing a detailed Lehigh Acres Green Infrastructure or Parks and Open Space Master Plan in coordination with the ECWCD to ensure that canal re-design projects incorporate recreational amenity features.
- Consider preparing a Lehigh Acres "Complete Streets" or Bicycle and Pedestrian Facilities Master Plan to identify and prioritize project needs and funding.
- Coordinate with Lee Tran to secure the launching of the Lehigh Circulator within the next 5 years, per the Transit Plan. Continue to monitor the population needs as the community grows,
- Modify zoning / land development and urban design standards for "Downtown" Lehigh Acres:
 - * Identify regulatory and other types of mechanisms, programs, and incentives to encourage the development of mixed-use development on obsolete uses in "downtown" Lehigh Acres: adopt a "mixed-use overlay;" remove existing regulatory hurdles; consider approval of certain projects (e.g., of a limited scale, vertical configuration, etc.) as of right or with the lower threshold of review.
 - * Consider creating an urban design plan, with consistent standards for the public realm – e.g., unified streetscape themes – signage, etc.).

Longer - Term Actions

- Coordinate with FGUA regarding phasing, costs to extend central potable water and sanitary sewer systems in Tiers 1 and 2.
- Continue open dialogue with ECWCD, FGUA, Health Department, School District to coordinate actions geared toward joint land acquisition efforts, infrastructure extensions etc.

- Develop on-going / long term process for land acquisition in Tier 3 for stormwater management, conservation etc. A tool that the County should begin exploring sooner, under the current real estate market conditions, is acquisition of property through tax deed sales. The county is not required to use the public tax deed sale process for parcels valued at less than \$5,000—if no one bids on a parcel, the ownership reverts to the county by default, or escheats.

VI.2 Regulatory Modifications

Of the short-term actions that Lee County can take to implement the Lehigh Acres Comprehensive Planning Study, two can be undertaken immediately and with limited expenditure of fiscal resources. The first one is to amend the Lee Plan to incorporate the recommendations of the study with regard to future land use, growth management and related policies as they pertain to Lehigh Acres.

The second action is to commence amendments to the Land Development Code that are consistent with the new Lee Plan policies; these LDC amendments do not even have to wait for the Plan policies to be officially sanctioned, but may be adopted as an interim ordinance.

Lee Plan Amendments

Specific changes include:

- Modify the wording of the 2030 Vision for Lehigh Acres to describe the anticipated future in a manner consistent with the community vision and the overall concept of long-term community sustainability through the management and balancing of growth; the enhancement of community character; the protection and restoration of natural resources; the efficient transportation options; and the provision of a full array of public services and facilities (refer to Section IV of this document for specific language).
- Incorporate the Lehigh Acres Tier System map and description as a new policy into the Lee Plan.
- Amend the Future Land Use Map to reflect consistency with the community land use concept. Designate land with available or planned infrastructure for the higher intensity use in the Future Land Use Map. To achieve the vision outlined by residents through this planning process, it is recommended that the FLUM be amended for Lehigh Acres as follows:
 - o Re-designate all the land located encompassed by Tiers 1 and 2 as Central Urban. During the next 20 years, the County, in partnership with applicable local, state or regional agencies, should strive to provide the full range of infrastructure and services in this area. Allowable densities in this entire area shall range between 4 du/ac and 10 du/ac with a maximum of 15 du/ac.
 - o Re-designate all the land area encompassed by Tier 3 to a *new*

future land use category. The character of this area is envisioned as being lower in density than the more developed Tiers 1 and 2—while still consistent with platted densities. The recommended new land use category is presented as a new “Special Treatment Area”:

Lehigh Acres Outlying Suburban Overlay

This overlay encompasses all land in Lehigh Acres that is located inside Tier 3 of the Tier Growth Concept. The standard density in this area ranges from two dwelling units per acre (2 du/ac) to four dwelling units per acre (4 du/ac). Only minimal public facilities are in place to serve this area, and residents can anticipate a continued level of public services below that of the urban and urbanizing areas of Lehigh Acres. Higher densities, commercial development (other than existing neighborhood centers), and industrial uses are not permitted. Land located in this overlay may be subject to acquisition for purposes of storm-water management, groundwater recharge, or conservation.

- Adopt a policy or policies requiring coordination between the appropriate agencies to prevent premature infrastructure extension or upgrading beyond the boundaries of Tier 2. The policy or policies should also require prioritizing all proposed capital expenditures according to the following guidelines (in order of priority):
 1. Correct existing deficiencies
 2. Accommodate growth in Tiers 1 and 2 over the next 20 years.
 3. Replace obsolete facilities.
- Adopt or amend language in the Lee Plan to encourage conservation and/or redevelopment where appropriate of developed areas in the urban core of Lehigh Acres.
- Adopt or amend language in the Lee Plan to apply the principles of community structure, including commercial, mixed-use and civic activity centers, and a hierarchy of parkway and greenway corridors. Designating the general location of mixed-use activity nodes in Lehigh Acres consistent with the community concept, and establishing guidelines and criteria for their development.

Zoning Changes

While this plan does not purport to alter every functional or physical aspect of development in Lehigh Acres, there are several areas of focus that will, in fact, require amending or, in some cases, augmenting existing development standards contained in the Land Development Code. While these amended standards are closely related to the recommended Lee Plan amendments described in the previous section, the code amendments may be initiated immediately. The amendments focus on zoning and development standards for locations or sectors that the plan does, in fact, attempt to transform. These include:

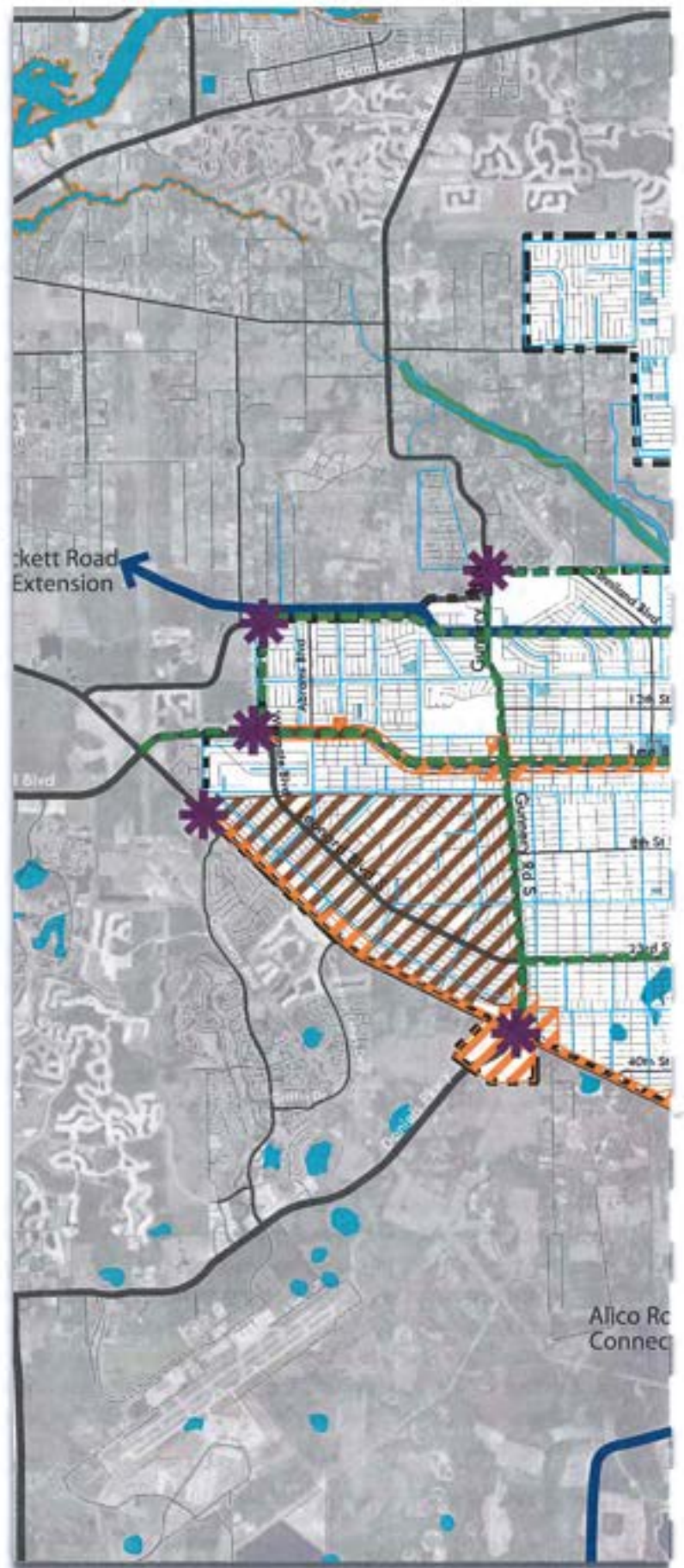
Lee Boulevard and S.R. 82 general standards

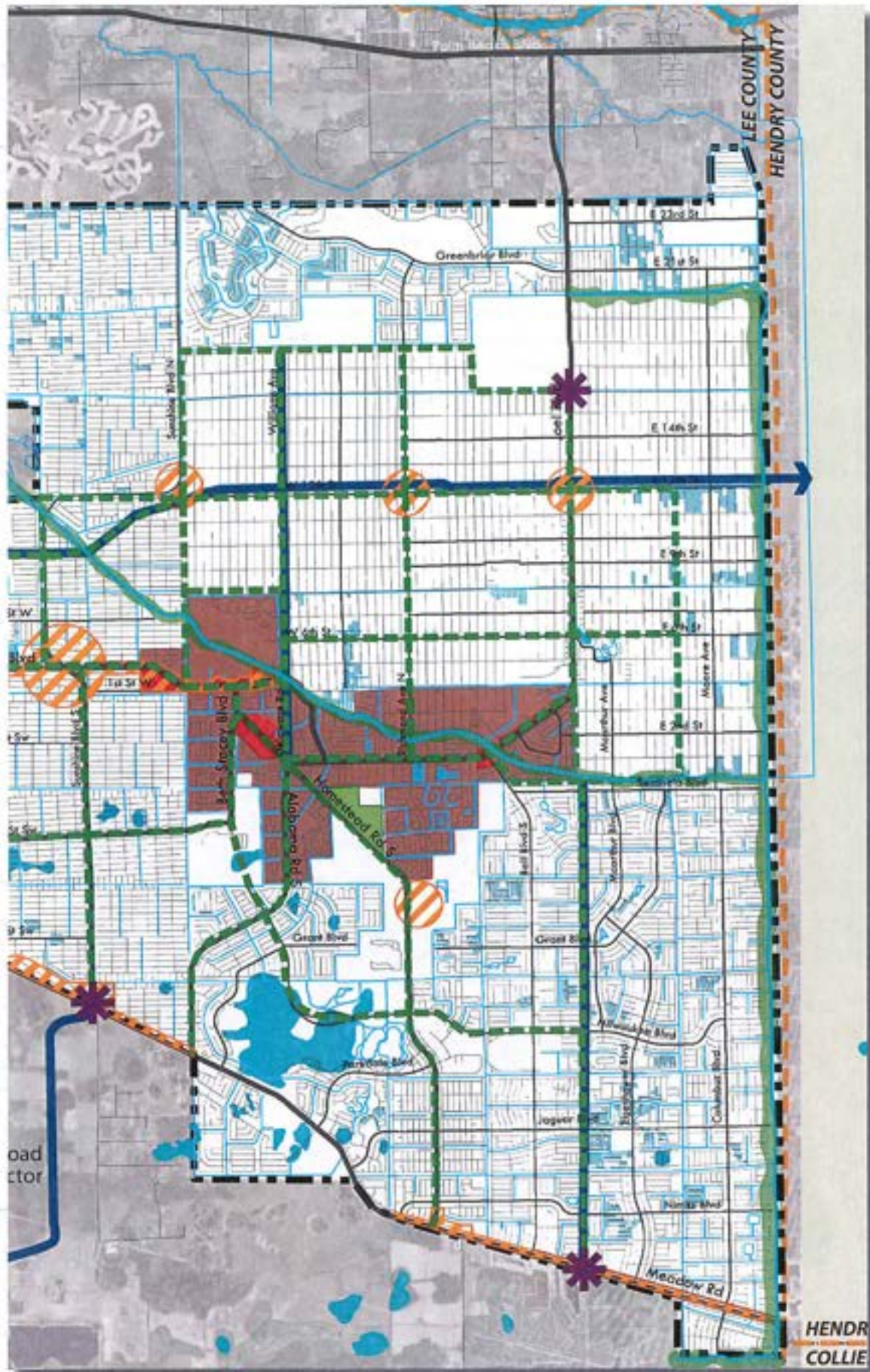
The Concept Plan proposes, among other things, to concentrate commer-

Figure 50: Urban Design Framework

Source: Lee County GIS

-  Improved Duplex Development and Design Standard
-  Mixed Use Overlay District
-  Present Commercial Use or Undeveloped Land Zoned for Commercial Use to Remain
-  "Downtown" Lehigh Acres: Opportunities for Infill, Redevelopment and Enhancement
-  Parkways
-  Gateways
-  Greenway Linkage
-  Existing Parks
-  Open Space
-  Potential Acquisition Sites for Open Spaces





cial development in "nodes" located at key intersections throughout Lehigh Acres, requiring that some of the vacant land currently zoned for commercial use along Lee Boulevard and S.R. 82, in particular, be converted to other, less intense uses.

The Plan does not propose that this land be down-zoned, since the current C-2 zoning applicable to most of this land (recognizing the vested rights that protect most of the parcels) already permits the development of residential uses in these areas. Therefore, it is simply proposed that an overlay zoning (as depicted in Figure 50) be applied to include the following standards:

- a. Expand the array of permitted residential uses to include townhouses, in order to provide an alternative to the predominant housing types in these areas (duplex and single family). Prototypes for the development of townhouse projects along S.R. 82 is depicted in Figure 51.
- b. Increase the minimum lot size for commercial uses in the overlay zone from 10,000 sq. ft. to 50,000 sq. ft. to encourage only the development of viable retail uses, of a scale and configuration consistent with the proposed community structure.
- c. For the same reasons as listed above., increase the minimum lot size for residential uses from 7,500 sq. ft. to 25,000 sq. ft. Consider including these areas as density transfer receiving sites to provide a density incentive for development other than single-family residential.
- d. Require parcels with frontage on SR 82 to provide a 40-foot setback from the property line that adjoins the SR 82 right-of-way, in order to establish a significant landscape buffer along SR 82. If the parcel is



Figure 51: Standards for townhouse development along key arterial corridors (SR 82 & Lee Boulevard)

larger than 50,000 sq. ft., a voluntary easement dedication should be encouraged. The easements will serve to create a continuous band of open space on SR 82, which could accommodate bicycle and pedestrian trails.

- e. An exception should be established for parcels along S.R. 82 that abut an existing utility easement. (Lee County should negotiate with the utility company to landscape and to create trails within existing power line easements).
- f. Attached dwellings (townhouses) shall be built with no side setback or as a single building. However, attached dwellings located on corner lots shall be set back at least 8' from the property line on the two sides of the lot the front on a street.
- g. Where commercial uses are developed on parcels located between Meadow Road and SR 82, but outside of designated Mixed-Use Activity Centers, such properties shall be screened from adjacent residential uses by a landscaped buffer, no less 15 feet in width, measured from the property line.
- h. A perimeter wall or fence may be used in combination with the required landscaped buffer (never alone). The wall or fence shall not exceed 6 ft. in height, and shall be setback no less than 10 feet from the property line (the fence shall be located in the middle of the vegetated buffer, with planting in front and, preferably, behind it.)
- i. Where a fence or wall is visible, they shall have piers, newel posts, or columns at corners or ends. Any visible portion of fence that is over 10 feet in length shall include visual breaks, including openings, changes of plane or height, or the introduction of architectural accents to minimize monotony.
- j. The use of chain link, plastic, or vinyl fencing shall be prohibited.

Standards for buildings in Mixed-Use Activity Centers

- a. Mixed use development (within a single project or structure) shall be permitted as of right.
- b. Integrated or "vertical" mixed-use projects, in which different uses are located on different floors of a single structure, are preferred.
- c. Residential uses that are part of a vertical mixed-use project shall never be located below a commercial or office use.
- d. The maximum height of mixed-use or single-use multifamily residential buildings located within Mixed-Use Activity Centers shall be 4 stories.
- e. The minimum Floor Area Ratio (FAR) for mixed use projects in MUACs shall be 0.3.
- f. The property line abutting the primary access road to the parcel shall be considered the front of the property in Mixed Use Activity Centers.
- g. Front yard setbacks shall be a minimum of 10' and a maximum of 15'; side setbacks a minimum of 0' and a maximum of 10'; rear setbacks a maximum of 20 ft.

- h. Multifamily buildings shall have a 10' side yard setback from the property line.
- i. The primary façade of all buildings located within Mixed-Use Activity Centers shall be oriented to the primary access road. This façade shall contain the main building entrance, which shall be clearly visible from the street.
- j. Pedestrian paths shall be provided to link parcels within a Mixed-Use Activity Center to neighboring properties.
- k. Buildings shall be designed and sited to provide functional, livable outdoor spaces. The inclusion of plazas/squares, galleries, courtyards, patios and terraces is encouraged, provided that such spaces are designed to enhance and reinforce the human scale and activity on the public sidewalk. Design should take into consideration views, solar angles, and the nature of activities anticipated to occur in the outdoor space.
- l. All accessory uses, including parking, storage, service, and utilities, shall be located to the side or rear of the parcel.
- m. Shared access and parking between adjacent businesses and/or developments shall be encouraged.
- n. Commercial uses shall be screened from adjacent residential neighborhoods by a landscaped buffer, no less than 5 feet in width, measured from the property line.
- o. A perimeter wall or fence may be used in combination with the required landscaped buffer (never alone). The wall or fence shall not to exceed 6 ft. in height, and shall be setback no less than 5 feet from the property line (the fence shall be located in the middle or behind the vegetated buffer).
- p. Where a fence or wall is visible, they shall have piers, newel posts, or columns at corners or ends. Any visible portion of fence that is over 10 feet in length shall include visual breaks, including openings, changes of plane or height, or the introduction of architectural accents to minimize monotony.
- q. The use of chain link, plastic, or vinyl fencing shall be prohibited.
- r. Surface parking lots shall be defined by a landscape hedge or a combination of hedge and perimeter wall per (n) above.
- s. At least 5 percent of the gross area of a surface parking lot shall consist of planting areas that can accommodate shade trees.
- t. Planting islands shall be located and sized to provide a minimum root zone for canopy trees, and a minimum setback from curb to perimeter of trunk of 4 feet.
- u. One shade tree shall be provided for every eight (8) parking spaces. Trees shall be distributed to provide continuous canopy coverage over the entire lot.
- v. Parking lots shall include well defined interior pedestrian walkways that are connected to sidewalks and to pedestrian walkways on adjacent properties. Walkways shall be a minimum of 4 feet wide, with a minimum 5-foot planting strip on one side to accommodate shade trees.

- w. Parking bays separated by pedestrian walkways shall include a maximum of 10 parking spaces.
- x. Automobile headlight illumination from parking areas shall be screened from adjacent lots and from the street.
- y. Outdoor mechanical equipment shall be placed on the roof, to the rear, or side of a building, and shall be screened from view from any of the abutting buildings or streets by fences, dense landscape, or (in the case of rooftop equipment) a parapet.

Standards for duplex development

Figure 52 offers a prototype for the development of duplex and/or town-house complexes with attached rear garages. The prototype works for lots 150 to 175 foot deep (such as those on several blocks that back on to Meadow Road), and proposes the creation of mid-block alleys. This would even permit the possibility of detached garages with access from the back.

Suggested standards for duplex and two-family development include those listed below. Some apply only to new development, as explicitly stated; others, however, may be retroactively enforced to bring nonconforming existing duplexes into compliance, perhaps through the implementation of a reasonable amortization period (to be determined). Another common option could allow the property maintain its nonconforming status until the owner applies for a building permit.

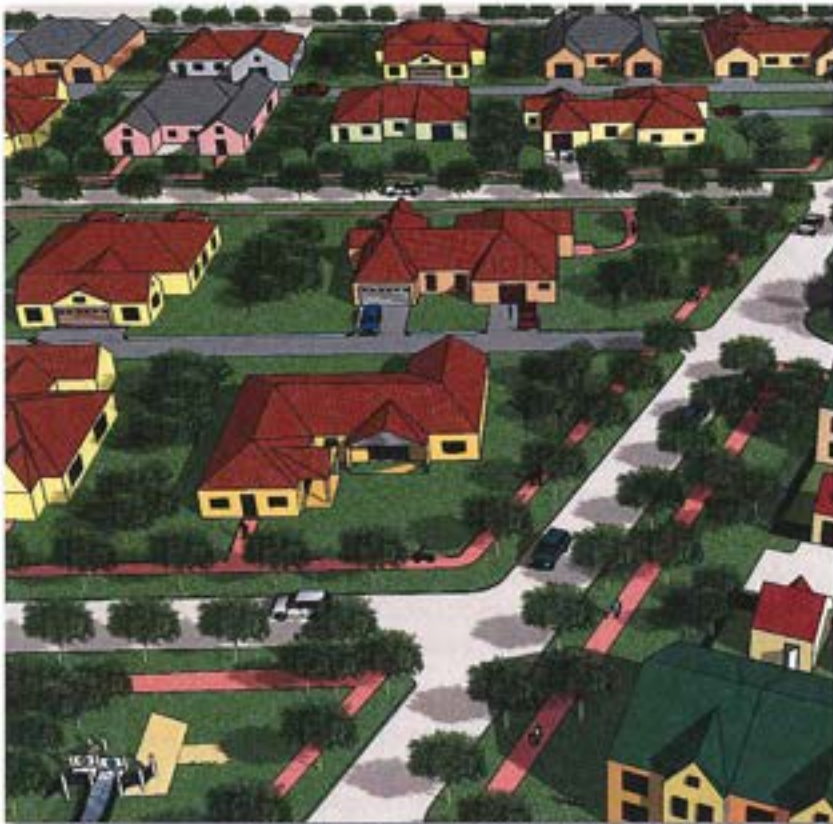


Figure 52: New prototype of duplex development with mid-block alley and rear-facing attached garages

- a. To facilitate the design and development of efficiently graded and attractively configured duplex sites, the minimum lot size for new duplex development shall be 10,000 sq. ft.
- b. In areas zoned for duplex and two-family development, the creation of mid-block alleys that can be shared by multiple sites is encouraged.
- c. All existing and new duplex and two-family homes shall provide a paved driveway. Brick pavers, decorative paving or permeable porous paving are all encouraged.
- d. The appearance of new duplex or two-family structures to resemble a single-family dwelling is desirable. Where feasible, the facade and/or roof massing of existing duplex structures should be retrofitted to resemble a single-family structure. (Figure 53)

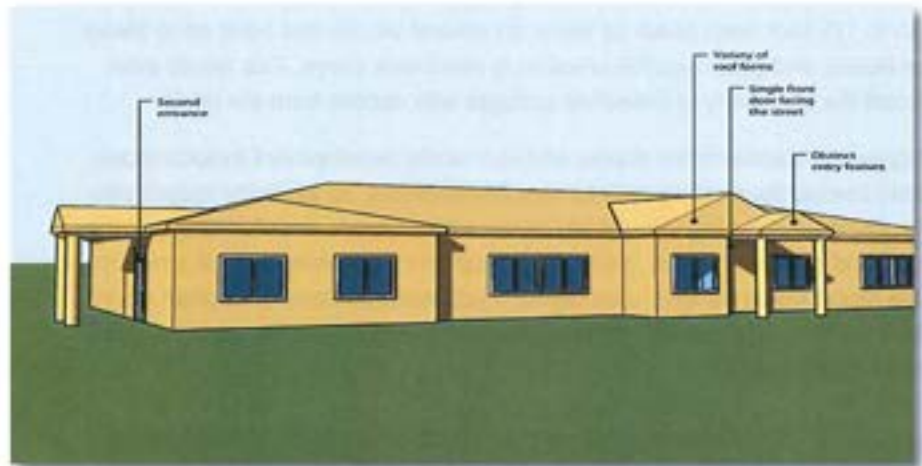


Figure 53: Development standards for new duplex development

- e. All duplex structures shall have a distinct entry feature such as a porch or weather covered entry way with at least thirty-six square feet of weather cover, and a minimum dimension of four feet. Covered porches open on three sides may encroach six feet into a required front setback.
- f. If practicable, a duplex structure should have a single front door to face street.
- g. Parking requirements shall comply with standard single family development for each unit. Front yard parking shall be limited to four cars.
- h. If practicable, garage doors should not face the street.
- i. Where central infrastructure is not available and development of the lot requires the use of an OSTDS, require that the entire lot be graded, if grading is required. The maximum slope on any given lot shall be set at approximately 1.5:10 (1-1/2 feet of slope per every 10 linear feet).

VI.3 Tool Kit for Medium and Long-Term Actions

This section describes a number of tools described in the list of medium and long-term actions, although some of the mechanisms that are used to accomplish short-term actions are described as well.

Transfer of Development Rights Program (TDR)

TDR programs enable landowners to transfer the development potential from one parcel of land to another, either on the same site or another site in a designated growth area, thereby shifting development from agricultural and environmentally sensitive areas to locations with full municipal services. The County would establish the TDR program by identifying areas, for example, in Tier 3 or in the DR/GR to be protected (sending areas) and by allowing the transfer of the development rights associated with parcels in those sending areas to areas designated to receive them (receiving areas).

An alternative to the TDR program may be a Purchase of Development Rights (PDR) program, which the County could establish to extinguish development rights in Tier 3. If the County could and wanted to act quickly, this may be an attractive immediate option to landowners in Lehigh Acres given the current market conditions.

Purchase of Development Rights (PDR)

In a PDR program, landowners would voluntarily sell a conservation easement to Lee County or its designated agency or organization. An easement would be placed on the landowner's deed and runs with the land, either in perpetuity or for a period of time specified in the easement document. The landowners would receive compensation in return for the restrictions placed on their land, while retaining title to their property.

Land Acquisition through Delinquent Tax Deed Sales and Escheatment

Under Chapter 197, Florida Statutes, a mechanism is established under which a local government may gain ownership of a parcel when the property owner fails to pay property taxes. If the owner is delinquent on payment of taxes, the local government can gain control of the property through tax deed sales or the escheat process, if the parcels are valued at less than \$5,000. However, acquisition through escheatment or tax deed sales can take a long time to complete.

Land acquired through either of these two or any other acquisition program or initiative can be used to enhance the inventory of community facilities (e.g., parks or school sites); to structure public/private partnerships for the development of commercial, office or employment uses through a developer solicitation process or similar mechanism once the land is assembled; or as a tool to redirect development from Tier 3 to Tiers 1 and 2. The County may directly target acquisition of land in Tier 3 for conservation, or may use parcels acquired in Tiers 1 or 2 (especially if the lots are scattered) to swap to owners of parcels in Tier 3. The lots could also become part of the TDR program, should the County decide to pursue the establishment of such a program.

Potential Innovative Approaches to Conventional Amortization of Non-conforming Duplex

A number of ideas for innovative alternatives to and hybrids of amortization have been advanced in the recent literature of amortization. They include amortization agreements between property owners and municipalities to

expedite termination of nonconforming uses. These have been successfully in California and upheld by the court.

Another approach to conventional amortization is to induce on-site conformance. When it is feasible for an owner to alter the use to the extent that it will be brought into conformance with present zoning, the County may persuade or encourage them to conform by granting special incentives, which may include the granting of a longer amortization period or permitting concessions.

Special Districts – MSTU and MSBU

As is currently in place in Lehigh Acres to fund street lighting, one or more additional MSTU-like entities could be created in Tiers 1 and 2 to bond revenue streams created by an additional tax / fee paid by Lehigh Acres households to fund infrastructure (water, sewer, parks). Such additional payments must, however, be set reasonably proportional to what residents are already paying in property taxes.

The advantage of using special districts to address infrastructure and perhaps even land acquisition in Lehigh Acres is that these districts target their services to a specific group of consumers who pay for the services received, thereby shifting infrastructure costs from all taxpayers within a jurisdiction of a general-purpose local government to the residents or property owners who will specifically benefit from the improvements, which removes the cost from the local government. This makes MSTU's an attractive option, by reducing potential resistance from taxpayers in the rest of Lee County to fund improvements in Lehigh Acres.

Community Redevelopment Agency (CRA)

CRA's of all sizes, ranging from a few hundred (e.g., South Miami, Dania Beach, Coral Springs, etc.) to several thousand acres (e.g., Pompano Beach, Fort Lauderdale Northwest-Progresso-Flagler Heights, Margate, North Miami, Port St. Lucie, etc.), are being used successfully in many Florida communities to address a wide range of issues, including downtown, waterfront, road corridor, and neighborhood redevelopment.

While it is not being proposed as part of this plan, a CRA could be an important mechanism for carrying out and financing the land assembly and redevelopment necessary to diversify the land use mix and strengthen the local tax base as envisioned in the Lehigh Acres Concept Plan. Due to the County's past experience with a Lehigh Acres CRA and related concerns about county-wide fiscal impacts of an area-wide TIF district, it is recognized that a CRA must moderate this fiscal impact by being limited either in its geographic coverage, or in the proportion of the tax increment retained in Lehigh Acres. However, the TIF would not impact current revenues to Lee County or other taxing authorities. They would continue to receive property tax revenues from the frozen value.

