

**APPRAISAL CONSULTING
ASSIGNMENT No. 03-10-01**

Project: Greater Pine Island
Community Plan Update
County: Lee County, Florida

PREPARED FOR
Timothy Jones, Esq.
Chief Assistant County Attorney
LEE COUNTY BOARD OF COUNTY COMMISSIONERS
Post Office Box 398
Fort Myers, FL 33902-0398

04 August 2004

PREPARED BY
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2233 Second Street
Fort Myers, FL 33901-3051

HANSON REAL ESTATE ADVISORS, INC.

Real Estate Valuation and Counseling

04 August 2004

Timothy Jones, Esq.
Chief Assistant County Attorney
LEE COUNTY BOARD OF COUNTY COMMISSIONERS
Post Office Box 398
Fort Myers, Florida 33902-0398

Re: Appraisal Consulting Assignment No. 03-10-01
Project: Greater Pine Island Community Plan Update
County: Lee County, Florida.

Dear Mr. Jones:

This real property appraisal consulting report is submitted for the purpose of determining what economic impacts (if any) might occur to the Pine Island market area if the 09 January 2003 changes to the Land Plan are made final as presently written, and are implemented through the regulations formulated by the Greater Pine Island Civic Association ("GPICA").

The central focus of this analysis is to address the property value impacts (if any) associated with changes to the Future Land Use Map ("FLUM") from the Rural (1 du./ac.) category to the new Coastal Rural (1 du./10 ac.) category, which requires clustering to maintain the previous density levels (1 du./ac.). In addition, we have addressed the impact of the plan's relaxation of previous restrictions on rezoning and on approval of new residential development orders that are triggered by the 810/910 traffic count milestones. Lastly, the effects of future land plan changes forming a part of litigation settlement agreements, if available during the study period, was to be considered (no such settlement agreements were reached).

According to Page 13 of the Greater Pine Island Plan Community Update ("GPICPU"), the greater Pine Island market area contains 25,380 gross acres. This acreage total includes 13,088 acres of wetlands, 2,763 acres of agriculture lands (22.5% of uplands), 4,853 acres of forests (39.5% of uplands), and 4,676 acres of urban area (38.0% of uplands). More recent estimates by the Lee County Planning Division have placed agricultural lands at 3,210 acres, including 2,355 acres of active agricultural (e.g. palm groves, tropical fruit orchards, row crops, etc.) lands and 855 acres to passive agricultural (e.g. pasture, etc.) lands.

The GPICPU proposes to designate 7,405 acres (60.2% of uplands) of greater Pine Island as Coastal Rural on the FLUM of the Lee Plan. Per Lee Plan, Policy 1.4.7 and associated Land Development Code ("LDC") Section 34-655 the Coastal Rural designation will provide for a "density recapture model" which affects permitted dwelling unit densities based on the percentage of preserved or restored native upland habitats. A maximum density of one (1) dwelling unit per one (1) acre would be permitted if 70 percent of the land were preserved or restored to native upland habitat.

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Timothy Jones, Esq.

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The sliding scale does not address farmland preservation (with the exception of proposed language in the LDC allowing up to 10% of the preserved or restored area to consist of commercial or non-commercial agricultural land). **Therefore, farmers are subject to the same requirement as non-farmers when preparing land for development.** However, most farmed lands do not have native upland habitat remaining. Thus, a farmer desiring to develop his/her farm into a residential subdivision would be allowed to develop at one (1) dwelling unit per ten (10) acres without taking any preservation or restoration measures. For an increase in density, a farmer would need to restore upland areas by re-creating native habitats that had been typical of Greater Pine Island. The greater percentage of farmland restored to native habitat (or any land restored for that matter), the greater residential density permitted.

Consequently, the agricultural landowner will face significant capital outlays for native upland habitat restoration. It is the appraiser consultant's opinion that the combination of these factors will result in a **\$60.0 million loss in market value to the agricultural lands.** No other adverse impacts were found.

Thank you for having given Hanson Real Estate Advisors, Inc., the opportunity to provide the Lee County Board of County Commissioners with appraisal consulting services at this time. If you have any questions concerning this report or the analysis and conclusions presented therein, please contact this office at your earliest convenience.

Respectfully submitted,

HANSON REAL ESTATE ADVISORS, INC.

A handwritten signature in black ink that reads "Woodward S. Hanson" with a stylized flourish at the end.

Woodward S. Hanson, MAI, CRE, CCIM
St. Cert. Gen. REA RZ 1003

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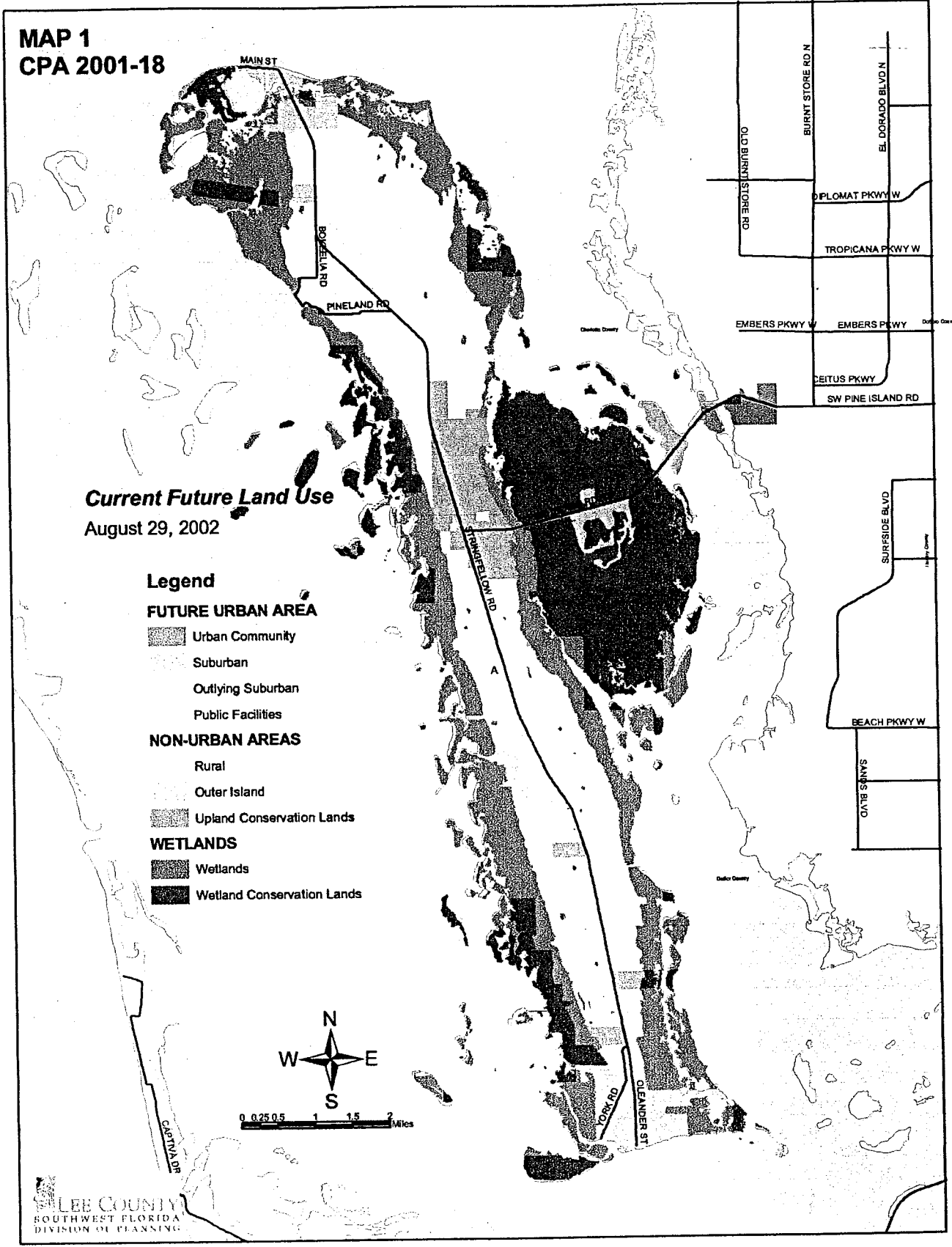
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**MAP 1
CPA 2001-18**

Current Future Land Use
August 29, 2002

Legend

- FUTURE URBAN AREA**
-  Urban Community
 -  Suburban
 -  Outlying Suburban
 -  Public Facilities
- NON-URBAN AREAS**
-  Rural
 -  Outer Island
 -  Upland Conservation Lands
- WETLANDS**
-  Wetlands
 -  Wetland Conservation Lands







**MAP 1
CPA 2001-18**




Proposed Future Land Use
August 29, 2002

Legend



FUTURE URBAN AREAS

-  Urban Community
-  Suburban
-  Outlying Suburban
-  Public Facilities



NON-URBAN AREAS

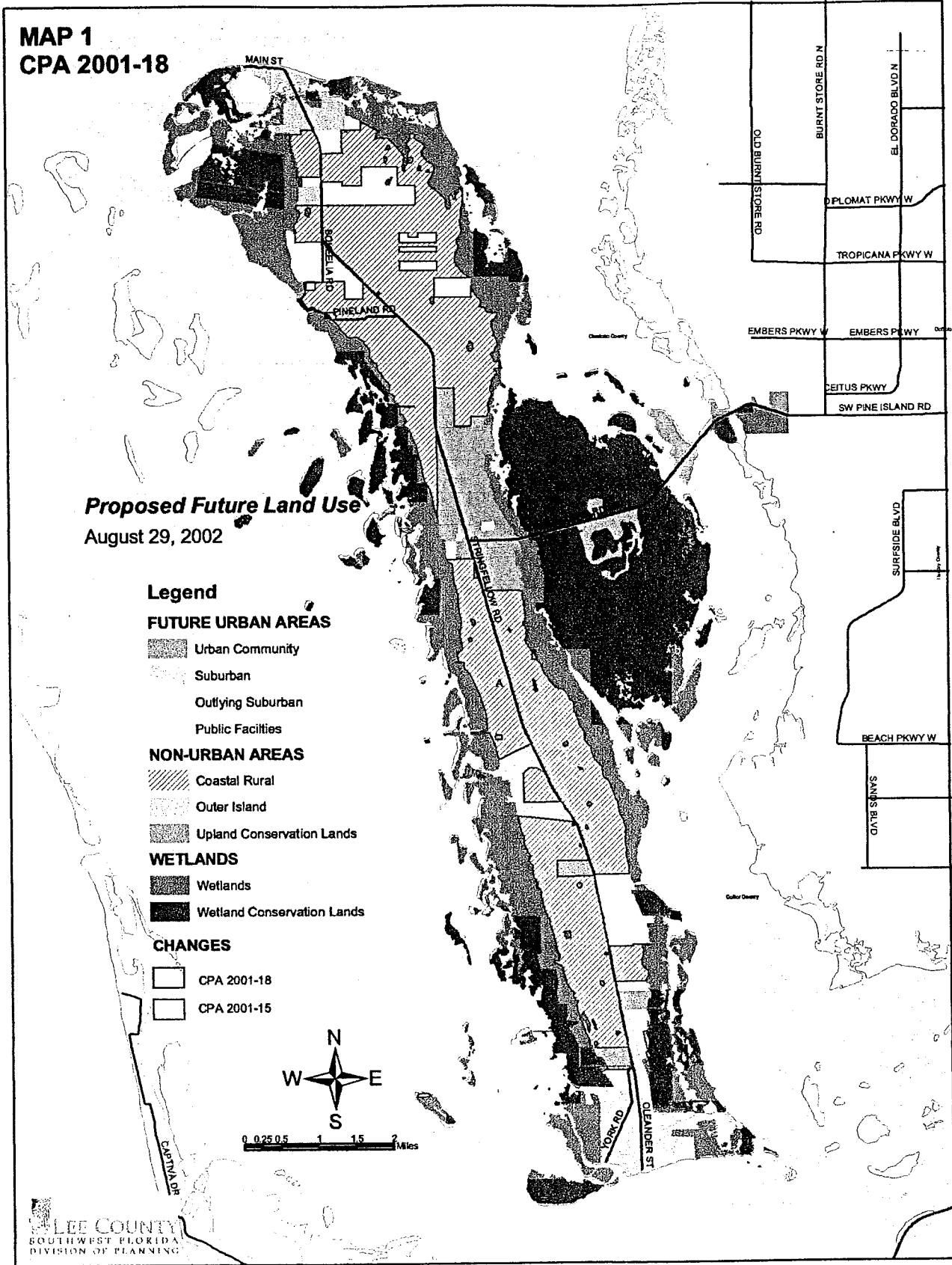
-  Coastal Rural
-  Outer Island
-  Upland Conservation Lands

WETLANDS

-  Wetlands
-  Wetland Conservation Lands

CHANGES

-  CPA 2001-18
-  CPA 2001-15



EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

THE PURPOSE OF THE APPRAISAL CONSULTING ASSIGNMENT

According to the 04 December 2003 engagement contract between the Lee County Board of County Commissioners and Hanson Real Estate Advisors, Inc., the purpose of the appraisal consulting assignment is stated as:

“The purpose of the assignment is to determine what economic impacts (if any) might occur to the Pine Island market area if the 09 January 2003 changes to the Land Plan are made final as presently written and are implemented through the regulations formulated by the Greater Pine Island Civic Association. The central focus of this analysis will be to address the property value impacts (if any) associated with changes to the Future Land Use Map from the Rural category to the new Coastal Rural category, which requires clustering to maintain the previous density levels. In addition, the impact of the plan’s relaxation of previous restrictions on rezoning and on approval of new residential development orders that are triggered by the 810/910 traffic count milestones must be considered. Lastly, the effects of future land plan changes forming a part of litigation settlement agreements, if available during the study period, must also be considered.”

MAJOR ELEMENTS OF THE GREATER PINE ISLAND COMMUNITY PLAN UPDATE

The central focus of this analysis identifies two major components to be analyzed by the appraiser consultant. These are summarized as follows:

- Address property value impacts (if any) associated with changes to the Future Land Use Map (“FLUM”) from the Rural (one dwelling unit per acre) category to the Coastal Rural (one unit per ten acres) category, which requires clustering to maintain the previous density levels, and;
- Consider the impact of the plan’s relaxation of previous restrictions (Policy 14.2.2) on rezoning and on approval of new residential development orders that are triggered by the 810/910 traffic count milestones.

BACKGROUND OF THE GREATER PINE ISLAND COMMUNITY PLAN UPDATE

In summary, the Greater Pine Island Community Plan Update (“GPICPU”) presents a community plan for Greater Pine Island. This plan update was formally submitted to Lee County in September 2001. An informal coalition of Pine Island residents formulated the original “future land use map (e.g. the Lee Plan)” for Pine Island that was adopted by Lee County into its 1984 comprehensive plan. Five years later, a community plan prepared by the Greater Pine Island Civic Association (“GPICA”) was the basis for a complete section of the Lee Plan (now under Goal 14). The opening statement of the community plan explained its purpose:

***GOAL 14:** To manage future growth on and around Greater Pine Island so as to maintain the island's unique natural resources and character and to insure that island residents and visitors have a reasonable opportunity to evacuate when a hurricane strike is imminent.*

Almost fifteen years have passed since Goal 14 and its supporting policies and maps were adopted. Due to the passing of time, new factors have arisen that require an overall re-examination of the plan.

PRE-EXISTING CONSIDERATIONS

The "GPICPU" identifies several pre-existing conditions that affect land utilization and property values whether or not the "GPICPU" is adopted. These issues must be understood so that their impacts are not misconstrued as impacts resulting from the "GPICPU." The following issues are identified:

- *Constrained Road Designation:* Lee County has designated certain roads that cannot (or should not) be widened as "constrained." Lee Plan Objective 22.2 accepts a trade-off of reduced peak hour levels of service for preservation of scenic, historic, environmental and aesthetic character of a community. The Matlacha section of Pine Island Road has been designated as "constrained" since 1989.
- *Matlacha Historic District:* Following the designation of Pine Island Road as a "constrained road" in 1989, Lee County designated the central portion (about 45 buildings) of Matlacha as a historic district in 1990. This designation would not legally prevent Lee County from altering or demolishing historic buildings, but it indicates the historic value of many of Matlacha's buildings in addition to its unique village character.
- *The 810/910 Rule:* Policy 14.2.2 of the Lee Plan indicates that when traffic on Pine Island Road between Burnt Store Road and Stringfellow Road reaches 810 peak hour, annual average, two-way trips, further rezonings which increase traffic on Pine Island Road are restricted, and when traffic reaches 910 peak hour, annual average, two-way trips, there are restrictions on further residential development orders. It is the appraiser consultant's understanding the 810/910 traffic thresholds have been exceeded.

According to Pete Eckenrode, Director of Lee County's Division of Development, Department of Community Development, the 810 and 910 thresholds have been exceeded. The Concurrency Inventory and Management Report ("CIMR"), containing this data, will be submitted to the Lee County Board of County Commissioners in November or December 2004 for inclusion in the Lee Plan.

SUMMARY AND CONCLUSIONS

In summary, the appraiser consultant has estimated that the GPICPU will not adversely affect properties with sufficient native upland habitat to recapture lost allowable residential densities through the application of the "density recapture model" and "clustered development."

However, those properties without existing native upland habitat (e.g. 3,210 acres classified active and passive farm fields) will have to comply with a habitat restoration program on 70 percent of their site in order to retain the pre-existing density of 1 du./ac. Engelhardt Hammer & Associates ("EHA") has estimated the cost of restoration to range from \$20,000 per acre to \$40,000 per acre. The appraiser consultant considered the economic feasibility (i.e., does it cost more to restore native upland habitat than the amount of value saved?) of the restoration program in the development of the economic impact estimate.

In conclusion, the economic impacts that are expected to occur to the Pine Island market area if the 09 January 2003 changes to the Land Plan are made final as presently written and are implemented through the regulations formulated by the GPICA, are summarized as follows:

- Forested Properties with Adequate Native Upland Habitat: No Impact.
- Agricultural Properties Without Native Upland Habitat:
 - Active Agriculture: Loss of \$40.0 million in market value.
 - Passive Agriculture: Loss of \$12.0 million in market value.
- Outlying Suburban FLUM Area (157 Acres): Loss of \$9.0 million in market value.

Therefore, it is the appraiser consultant's opinion the total impact resulting from the GPICPU is **\$61.0 million**, or rounded to \$60.0 million.

**IDENTIFICATION
OF THE
APPRAISAL CONSULTING ASSIGNMENT**

IDENTIFICATION OF THE APPRAISAL CONSULTING ASSIGNMENT

IDENTIFICATION OF THE CLIENT AND INTENDED USERS

The Uniform Standards of Professional Appraisal Practice – 2004 Edition (e.g., USPAP 2004 Edition) defines “client” and “intended user” as follows:

- *Client:* The client is the party or parties who engage an appraiser (by employment or contract) in a specific assignment. On this basis, the client is identified as Timothy Jones, Esq., Chief Assistant County Attorney, on behalf of the Lee County Board of County Commissioners, whose address is Post Office Box 398, Fort Myers, Florida 33902-0398.
- *Intended User:* The intended user is the client and any other party as identified, by name or type, as users of the appraisal, appraisal review, or appraisal consulting report by the appraiser on the basis of communication with the client at the time of the assignment. On this basis, the intended user is identified as the Lee County Board of County Commissioners.

IDENTIFICATION OF THE INTENDED USE

The Uniform Standards of Professional Appraisal Practice – 2004 Edition (e.g., USPAP 2004 Edition) defines “intended use” as:

“the use or uses of an appraiser’s reported appraisal, appraisal review, or appraisal consulting assignment opinions and conclusions, as identified by the appraiser based on communication with the client at the time of the assignment.”

The “intended use” of this appraisal consulting report is to assist the Lee County Board of County Commissioner’s in determining if the proposed 09 January 2003 amendments to the Lee Plan will result in any adverse impact(s) to the Pine Island market area, as geographically defined in the Greater Pine Island Community Plan Update.

THE PROBLEM TO BE SOLVED

The appraisal consulting problem to be solved relates primarily to a determination of the economic impact (if any) which shall occur to the Pine Island market area if the 09 January 2003 changes to the Land Plan are made final as presently written and are implemented through the regulations formulated by the Greater Pine Island Civic Association.

Significant components to this assignment include without limitation:

- *Coastal Rural Land Use Designation:* Modification of Lee Plan Policy 14.1.8 to reclassify all uplands on Pine Island previously designated as Rural to a new Coastal Rural on the Future Land Use Map. The purposes of this redesignation are to provide a clearer separation between rural and urban habitats, to discourage the unnecessary

destruction of native upland habitats, and to avoid placing more dwelling units on Pine Island than can be served by limited road capacity to the mainland. This FLUM category has a maximum density of 1 du./10 ac.

- *Density Recapture Model:* The density recapture model of the Lee Plan, Policy 1.4.7 and associated Land Development Code Section 34-655 affects permitted dwelling unit densities based on the percentage of preserved or restored native upland habitats. The model is a sliding scale allowing increases in density per increases in preservation and restoration. If no land is preserved or restored, a maximum density of one dwelling unit per ten acres (1 du./10 ac.) would be permitted. A maximum of one (1) dwelling unit per one (1) acre would be permitted if seventy percent of the land were preserved or restored to native upland habitat.
- *810/910 Rule:* The 810/910 Rule was developed to control the amount of future growth on Greater Pine Island by controlling the level of traffic on Pine Island Road. Policy 14.2.2 of the Lee Plan indicates that when traffic on Pine Island Road between Burnt Store Road and Stringfellow Road reaches 810 peak hour, annual average, two-way trips, further rezonings which increase traffic on Pine Island Road are restricted, and when traffic reaches 910 peak hour, annual average, two-way trips, there are restrictions on further residential development orders. It is the appraiser consultant's understanding that these traffic thresholds have been exceeded.
- *Other Transportation Issues:* Lee Plan Policy 14.2.3 indicates that Lee County will take whatever actions are feasible to increase the capacity on Pine Island Road. Alternatives typically discussed in this regard include the construction of left-turn lanes at intersections of local roads in Matlacha or a continuous third lane. The feasibility of these alternatives would be affected by existing bridge widths, the designation of Pine Island Road through Matlacha as a "constrained road" per Lee Plan Objective 22.2, the designation of Matlacha by Lee County as a "historic district," hurricane evacuation and the proximity of adjacent structures to existing road right-of-way.

THE PURPOSE OF THE APPRAISAL CONSULTING ASSIGNMENT

According to the 04 December 2003 engagement contract between the Lee County Board of County Commissioners and Hanson Real Estate Advisors, Inc., the purpose of the appraisal consulting assignment is stated as:

"The purpose of the assignment is to determine what economic impacts (if any) might occur to the Pine Island market area if the 09 January 2003 changes to the Land Plan are made final as presently written and are implemented through the regulations formulated by the Greater Pine Island Civic Association. The central focus of this analysis will be to address the property value impacts (if any) associated with changes to the Future Land Use Map from the Rural category to the new Coastal Rural category, which requires clustering to maintain the previous density levels. In addition, the impact of the plan's relaxation of previous restrictions on rezoning and on approval of new residential development orders that are triggered by the 810/910 traffic count milestones must be considered. Lastly, the

effects of future land plan changes forming a part of litigation settlement agreements, if available during the study period, must also be considered.”

SUBJECT PROPERTY AND MARKET AREA IDENTIFICATION

The GPICPU includes Pine Island, Little Pine Island and Matlacha. Pine Island is about 17 miles long and at its widest point is about 2 miles wide. Surrounded by harbors, bays, and dense mangrove forests, Pine Island is characterized by seven residential villages. With best access to the water, these residential villages include Bokeelia, Pineland, Matlacha, Flamingo Bay, Tropical Homesites/Manatee Bay, and St. James City. Pine Island is bounded by Matlacha Pass to the east, Charlotte Harbor to the north, Pine Island Sound to the west, and the Caloosahatchee River to the south.

EFFECTIVE DATES OF THE APPRAISAL CONSULTING ASSIGNMENT

The effective date of the appraisal consulting assignment results is 04 August 2004, the date of appraisal pertinent to each opinion of value used in support of any appraisal consulting results, and the date of the appraisal consulting report is 04 August 2004.

SCOPE OF WORK AND EXTENT OF DATA COLLECTION

The appraiser consultant has completed the following tasks and interviewed the following individuals during the process of developing and communicating the analysis and conclusions of this appraisal consulting assignment:

- Reviewed Lee County Ordinance No. 03-03, the Greater Pine Island Community Plan Update, and the implementing policies of the plan.
- Personally visited the Pine Island market area on numerous occasions. Inspections of the market area were completed by automobile and airplane.
- Researched those areas designated on the Lee Plan’s “FLUM” as Rural (1dwelling unit per acre) for information related to land uses, purchase motivation and transactional details. Individual transactions were verified by the appraiser consultant or his staff.
- Researched those areas designated on the Lee Plan’s “FLUM” as Density Reduction/Groundwater Resource (1dwelling unit per 10 acres) for information related to land uses, purchase motivation and transactional details. Individual transactions were verified by the appraiser consultant or his staff.
- Analyzed price differences between land sales located in the “Rural” area of the “FLUM” and the “Density Reduction/Groundwater Resource” area of the “FLUM.”

- Researched the Pine Island market area for information relating to recent land transactions. This data was verified by the appraiser consultant or his staff.
- Interviewed real estate professionals who specialize in Pine Island properties, including without limitation Richard Krieg, Mike Shevlin, Ken Cox, Marty Yettin, Greg Eagle, Noel Andress, and Carlin Herring.
- Interviewed William M. Spikowski, AICP, the author of the “GPICPU,” and reviewed his January 20, 2004 deposition.
- Reviewed the October 27, 2003 deposition of David Loveland, Manager of Transportation Planning, Lee County Department of Transportation.
- Met with Pat Buchanan, a member of the Greater Pine Island Civic Association.
- Met with Russel M. Setti and Russell Schropp, Esq., for the purpose of discussing Mr. Setti’s plan for a 1,045.3 acre Florida Quality Development (“FQD”) to be located on Pine Island.
- Met with Robert Clemens with Lee County’s Office of County Lands. Mr. Clemens has been involved in Lee County’s acquisition of several Pine Island properties through Lee County’s Conservation 2020 program.
- Met with Ray Pavelka, a member of Lee County’s Conservation 2020 advisory board and director of the Little Pine Island Mitigation Bank.
- Met with Pete Eckenrode, Director of Lee County’s Division of Development within the Lee County Department of Community Development.
- Met with Matthew D. Uhle, Esq. and his clients (various parties with agricultural interests) to discuss the perceived impact of the “GPICPU” on his clients.
- Met with Ed Dean and personally inspected several of his agricultural properties for the purpose of familiarizing myself with the scope and nature of the surface water management systems associated with these properties.
- Assembled a project team consisting of a land planner and a statistician to assist in the evaluation of issues relating to this assignment, analyze data, and make recommendations.

SPECIAL ASSUMPTIONS

The analysis and opinions reported herein are based upon the Assumptions and Limiting Conditions contained herein as well as the following Special Assumptions:

- The agricultural properties identified herein do not have any native upland habitat.
- The active agricultural properties (2,355 acres) identified herein are assumed to have no native upland habitat. These properties are assumed to be characterized by an elaborate system of ditches, dikes, and large on-site retention systems designed to detain and treat farm runoff before it leaves the property.
- The passive agricultural properties (855 acres) identified herein are assumed to have no native upland habitat. In addition, these properties are assumed to have significantly less extensive surface water management systems.
- Restoration of the farmland to its original topography and hydrological condition would require a significant modification of the South Florida Water Management District (“SFWMD”) permit, as well as major earthwork to remove the existing system of ditches and dikes. Restoration would also require contouring of the soil, removal of existing irrigation systems, as well as the coordinated effort of both an engineering and environmental consultant.
- The restoration costs provided by Engelhardt Hammer & Associates (“EHA”) are reasonable, accurate, and reflect the restoration requirements of the GPICPU.
- The economic impacts identified herein do not include any economic loss related to holding costs (e.g. cost of capital, ad valorem taxes, etc.) incurred by the property owner during the time period required to complete the native upland restoration program/process.
- The restoration costs and units of value discussed herein do not relate to any one parcel in particular, but a class of properties, and have been used for developing an order of magnitude estimate relating to impacts associated with the GPICPU. The actual impact to a specific property may vary due to site specific impacts and conditions.

SIGNIFICANT PROFESSIONAL ASSISTANCE

Significant professional assistance was provided to the appraiser consultant by the following individuals:

- Ethel D. Hammer, President
Engelhardt, Hammer & Associates
5444 Bay Center Drive, Suite 122
Tampa, FL 33609

**LEE COUNTY ORDINANCE NUMBER 03-03
(Greater Pine Island Community Plan)
(CPA 2001-18)**

LEE COUNTY ORDINANCE NUMBER 03-03 GREATER PINE ISLAND COMMUNITY PLAN

INTRODUCTION

In summary, Lee County Ordinance No. 03-03 is an ordinance amending the Lee County Comprehensive Plan, commonly known as the "Lee Plan," adopted by Ordinance No. 89-02, as amended, so as to adopt Amendment CPA 2001-18 (Pertaining to the Greater Pine Island Community Plan) approved during the County's 2001/2002 regular comprehensive plan amendment cycle; providing for amendments to adopted text and Future Land Use Map; Purpose and Short Title; legal effect of the Lee Plan; geographical applicability; severability, codification, scrivener's errors, and an effective date. A full and complete copy of Lee County Ordinance No. 03-03 is presented in the addendum of this report for the reader's review.

TIMELINE OF CRITICAL EVENTS

An overview of the timeline of events relating to the adoption of Ordinance No. 03-03 is presented:

- *25 March and 22 April 2002:* The Lee County Planning Agency ("LPA") held public hearings pursuant to Florida Statutes and Lee County Administrative Code.
- *05 September 2002:* The Lee County Board of County Commissioners ("Board") held a public hearing for the transmittal of the proposed amendment. At that hearing, the Board approved a motion to send, and did later send, proposed amendment CPA2001-18 pertaining to the Greater Pine Island Community Planning Effort to the Florida Department of Community Affairs ("DCA") for review and comment.
- *22 November 2002:* DCA issued their written comments commonly referred to as the "ORC Report."
- *09 January 2003:* At a public hearing, the Board moved to adopt the proposed amendment to the Lee Plan adopting the Greater Pine Island Community Plan.
- *Current:* A 14 June 2004 administrative hearing was recently postponed with no alternative date scheduled.
- *02 August 2004:* Public hearing with Lee County Board of County Commissioners meeting at Old Courthouse to discuss Pine Island development moratorium.

LEE COUNTY'S 2000/01 COMPREHENSIVE PLAN AMENDMENT CYCLE

On 09 January 2003, the Board adopted and amended the Lee Plan through CPA2001-18. CPA2001-18 amends the Plan to incorporate the recommendations of the Greater Pine Island Community Planning effort, including changes to Goal 14 and subsequent Objective and Policies

specific to the Greater Pine Island Community, changes to Policy 1.4.7, and amendments to the Future Land Use Map (“FLUM”). The specific amendments adopted were:

- The establishment of a new “Coastal Rural” future land use category as described in new Policy 1.4.7 (Exhibit 1).
- Reclassify all land on Pine Island now designated as “Rural” to “Coastal Rural” (Exhibit 2).
- Amend the FLUM series to reclassify 157 acres of agricultural land between Bokeelia and September Estates from “Outlying Suburban” to “Coastal Rural” (Exhibit 3).
- Replace the existing vision statement for Pine Island in Chapter 1 of the Lee Plan with the new vision statement as shown on Exhibit 1.
- Modify Policies 14.1.5, 14.1.7, 14.2.2, 14.2.3, and 14.3.3 (Exhibit 1).
- Add new Policies 14.1.8, 14.2.4, 14.3.5, 14.4.3, 14.4.4, 14.4.5, and 14.5.4 (Exhibit 1).

SUMMARY AND CONCLUSION

The plan amendments outlined above will not become effective until a final order is issued by the DCA, or the Administrative Commission finding the amendment in compliance with Section 163.3184, Florida Statutes, whichever occurs earlier. No development orders, development permits, or land uses dependent on this amendment may be issued, or commence before the amendment has become effective. If a final order of noncompliance is issued by the Administration Commission, this amendment may nevertheless be made effective by adoption of a resolution affirming its effective status. A copy of such resolution will be sent to the DCA, Bureau of Local Planning, 2555 Shumard Oak Boulevard, Tallahassee, Florida 32399-2100.

**IMPLEMENTING POLICIES
OF THE
GREATER PINE ISLAND CIVIC ASSOCIATION
(GPICA)**

IMPLEMENTING POLICIES OF THE GPICA

INTRODUCTION

As indicated in “The Purpose of the Appraisal Consulting Assignment” section of this report, the consultant is to determine what economic impacts (if any) might occur to the Pine Island market area if the 09 January 2003 changes to the Land Plan are made as presently written and are implemented through the regulations formulated by the Greater Pine Island Civic Association (“GPICA”). The proposed amendments to the Land Plan include modifications to Lee Plan Policy No. 14.1.5, 14.1.7, 14.2.2, 14.2.3, and 14.3.3, and development of new Lee Plan Policy No. 14.1.8, 14.2.4, 14.3.5 14.4.3, 14.4.4, 14.4.5, and 14.5.4.

The GPICPU has been sponsored as a community service by the Greater Pine Island Civic Association, with professional assistance by Spikowski Planning Associates, aided by Mohsen Salehi Consulting Services, both of Fort Myers. Generous financial assistance was provided by the Lee County Board of County Commissioners, the Florida Department of Community Affairs, and the Elizabeth Ordway Dunn Foundation, with assistance from the Florida Wildlife Federation. Updates on the progress of this plan are published in the Pine Island Eagle and are also available at <http://www.spikowski.com/pineisland.htm> and <http://www.PineIslandNews.com>.

MODIFIED LEE PLAN POLICIES

According to Lee County Ordinance No. 03-03, the following Lee Plan Policies are currently proposed for modification:

- *Lee Plan Policy No. 14.1.5:* New development, including “planned development rezoning approvals, new subdivisions and agriculture, that adjoin state-designated aquatic preserves and associated wetlands and natural tributaries must preserve or create a 50-foot-wide native vegetated buffer area between the development and the water body or associated wetlands. This requirement will not apply to existing subdivided lots. For agriculture, this requirement:
 - Will be implemented through the notice-of-clearing process in Chapter 14 of the Land Development Code;
 - Will include a requirement to use this area as a riparian forest buffer with an adjoining filter strip wherever farmland abuts wetlands; and
 - If native vegetation does not currently exist, native tree cover will be established within three (3) years of issuance of the notice clearing.
- *Lee Plan Policy No. 14.1.7:* Lee County will design a program within one year to assess the condition of septic tank drainfields along saltwater canals in St. James City, Bokeelia, and Flamingo Bay if grant funding can be obtained and if property owners are willing to cooperate with the study. This program would analyze whether current soil conditions or the density, age, or condition of drainfields are likely to be degrading tidal

water in the canals. If serious degradation is taking place, Lee County will assess the feasibility of various corrective measures.

- *Lee Plan Policy No. 14.2.2:* In order to recognize and give priority to the property rights previously granted by Lee County for about 6,675 additional dwelling units, the county will keep in force effective development regulations which address growth on Pine Island and which implement measures to gradually limit future development approvals. These regulations will reduce certain types of approvals at established thresholds prior to the capacity of Pine Island Road being reached, measured as follows at the permanent count station on Little Pine Island:
 - When traffic on Pine Island Road reaches 810 peak hour, annual average two-way trips, the regulations will restrict further rezonings which would increase traffic on Pine Island Road through Matlacha. These regulations shall provide reasonable exceptions for minor rezonings on infill properties surrounded by development at similar intensities and those with inconsequential or positive effects on peak traffic flows through Matlacha, and may give preference to rezonings for small enterprises that promote the nature and heritage of Greater Pine Island.
 - When traffic on Pine Island Road reaches 910 peak hour, annual average two-way trips, the regulations will provide restrictions on the further issuance of residential development orders (pursuant to Chapter 10 of the Land Development Code), or other measures to maintain the adopted level of service, until improvements can be made in accordance with this plan. The effect of these restrictions on residential densities must not be more severe than restricting densities to one-third of the maximum density otherwise allowed on that property.

The 810 and 910 thresholds were based on 80% and 90% of level-of-service “D” capacity calculated using the 1965 Highway Capacity Manual, as documented in the 2001 Greater Pine Island Community Plan Update. These development regulations may provide exceptions for legitimate ongoing developments to protect previously approved densities for final phases that have a Chapter 177 plat or site-plan approval under Ordinance 86-36.

- *Lee Plan Policy No. 14.2.3:* In addition to enforcing the restrictions in the Policy 14.2.2, the County will take whatever additional actions are feasible to increase the capacity of Pine Island Road. The following measures will be evaluated:
 - The construction of left-turn lanes at intersections with local roads in Matlacha,
 - Improvements to Burnt Store Road and Pine Island Road to the east of Burnt Store that will prevent premature closure of those roads during an evacuation, closures which now limit the number of Greater Pine Island and Cape Coral residents able to evacuate.

- *Lee Plan Policy No. 14.3.3:* The County's Land Development Code will continue to state that no building or structure on Greater Pine Island will be erected or altered so that the peak of the roof exceeds thirty-eight (38) feet above the average grade of the lot in question, or forty-five (45) feet above mean sea level, whichever is the lower. No deviations from these height restrictions may be granted through the planned development process. These height restrictions will not be measured from minimum flood elevations nor will increases in building height be allowed in exchange for increased setbacks. Industrial buildings must also comply with these height restrictions.

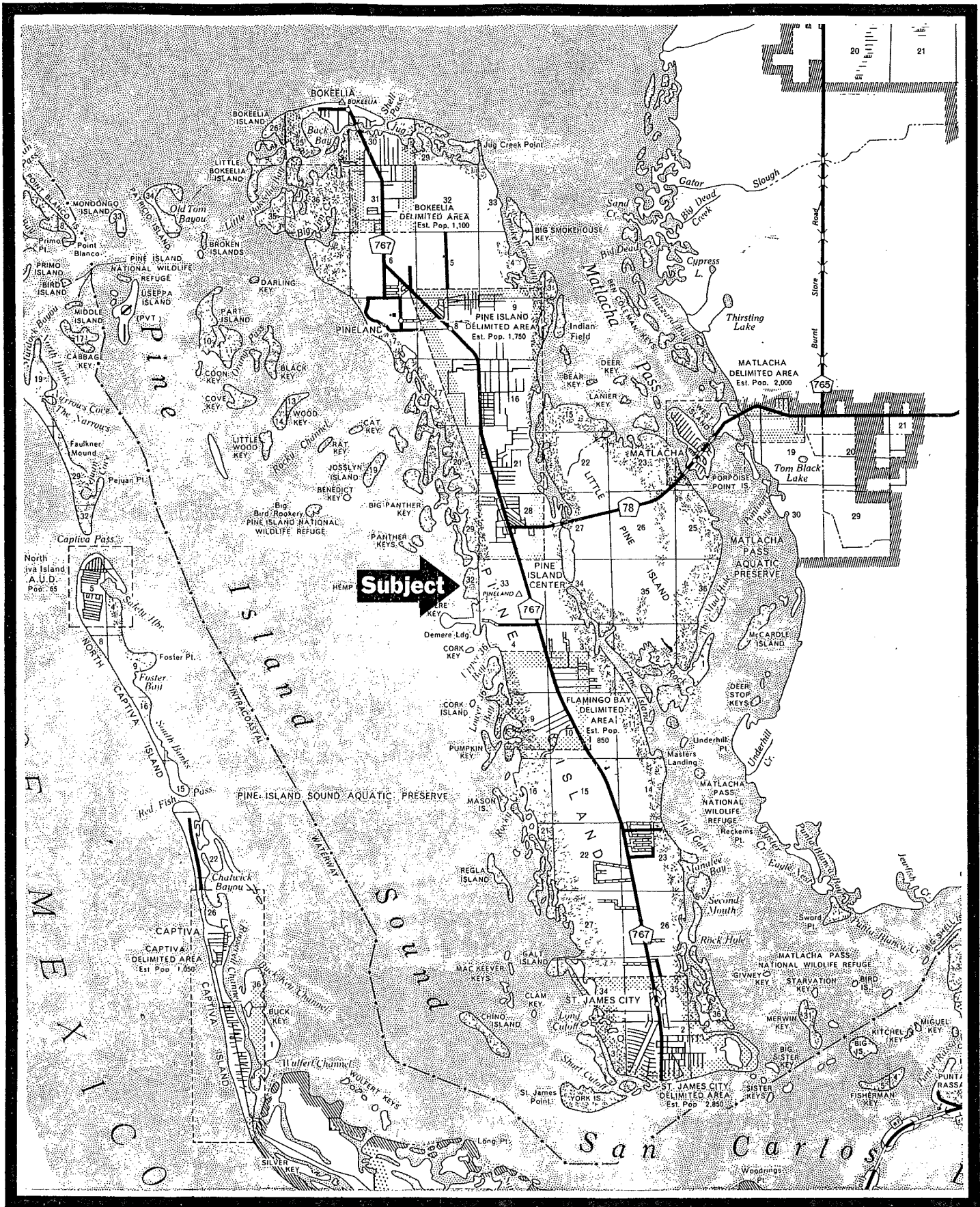
NEW LEE PLAN POLICIES

According to Lee County Ordinance No. 03-03, the following policies are currently proposed for inclusion in the Lee Plan:

- *Lee Plan Policy No. 14.1.8:* The County reclassified all uplands on Pine Island previously designated as Rural to a new Coastal Rural designation on the Future Land Use Map. The purposes of this redesignation was to provide a clearer separation between rural and urban uses on Pine Island, to discourage the unnecessary destruction of native upland habitats, and to avoid placing more dwelling units on Pine Island that can be served by the limited road capacity to the mainland. The Coastal Rural designation is designed to provide land owners with maximum flexibility while accomplishing these public purposes.
- *Lee Plan Policy No. 14.2.4:* The County will make efforts to continue extending the bicycle path to run the entire length of Stringfellow Road. Wherever possible, this path should be designed as a major public amenity similar to the high-quality design used for the bicycle path north of Pineland, which was completed in 2001.
- *Lee Plan Policy No. 14.3.5:* The County will amend its land development code to provide specific regulations for neighborhood connectivity and walls and gates on Greater Pine Island if an acceptable proposal is submitted by the Greater Pine Island community. These regulations would require interconnections between adjoining neighborhoods wherever feasible and would no longer allow perimeter walls around larger developments.
- *Lee Plan Policy No. 14.4.3:* The County will expand the commercial design standards in its land development code to provide specific architectural and site design standards for Greater Pine Island if an acceptable proposal is submitted by the Greater Pine Island community. These standards would promote but not mandate rehabilitation over demolition; require smaller rather than larger buildings; avoid standardized franchise buildings; preserve mature trees wherever possible; place most parking to the side and rear; require large windows and forbid most blank walls; and encourage metal roofs and other features of traditional "Old Florida" styles. The new commercial design standards will reflect the different characteristics of Bokeelia, Pineland, Matlacha, and St. James City.

- *Lee Plan Policy No. 14.4.4:* The County will expand its current sign regulations to include specific standards for Greater Pine Island if an acceptable proposal is submitted by the Greater Pine Island community. These standards would reduce the size of ground-mounted signs, discourage or disallow internally lit box signs, allow wall signs on buildings near the right-of-way, and allow small directional signs on Stringfellow Road for businesses not visible from the road.
- *Lee Plan Policy No. 14.4.5:* The County will establish a prioritized schedule for an effort to rezone land to zoning districts that properly reflect its development potential under the Lee Plan.
- *Lee Plan Policy No. 14.4.5:* The County will update its historic sites survey of Greater Pine Island if an update is determined to be needed. The County will consider formal local designation of additional historic buildings, especially in St. James City, Pineland, and Bokeelia, and will identify potential buildings or districts for the National Register of Historic Places.

**GENERAL OVERVIEW
OF THE
GREATER PINE ISLAND MARKET AREA**



Area Map

OVERVIEW OF THE GREATER PINE ISLAND MARKET AREA

INTRODUCTION

In this portion of the appraisal consulting report, the appraiser consultant will present a detailed overview of the Greater Pine Island Market area. To better understand this portion of the report, the following definitions are presented:

- *Market Area:* The defined geographic area in which the subject property competes for the attentions of market participants; the term broadly defines an area containing diverse land uses.
- *Neighborhood:* A group of complementary land uses; a related grouping of inhabitants, buildings, or business enterprises.
- *District:* A market area characterized by one predominant land use (e.g., apartment, commercial, industrial, agricultural).

In the analysis of the market area, an appraiser studies how value influences affect property value. Market areas are defined by a combination of factors (e.g., physical features, the demographic and socioeconomic characteristics of the residents or tenants, the condition of the improvements) and land use trends.

Analyzing the market area helps to provide a framework, or context, in which the opinion of property value is developed. The analysis identifies the area of influence and establishes potential limits for data that can be used to apply the approaches to value. Market area analysis also helps the appraiser consultant determine an area's stability and may indicate future land uses and value trends.

DEFINITION OF GEOGRAPHICAL BOUNDARIES

The GPICPU has described Greater Pine Island as Pine Island, Little Pine Island, and Matlacha. These islands are located west of Cape Coral and mainland Lee County but inside the string of barrier islands along Florida's west coast. While geographically separate, Greater Pine Island is part of unincorporated Lee County and is governed by its board of county commissioners.

Pine Island is the largest island off the Florida coast. It measures some 17 miles from St. James City on the south to Bokeelia on the north and at its widest point is about two (2) miles wide. With a total size of approximately 33,620 acres, Pine Island is surrounded by an estuary formed by Charlotte Harbor, Pine Island Sound, Matlacha Pass, and San Carlos Bay.

LIFE CYCLE OF THE GREATER PINE ISLAND MARKET AREA

The complementary land uses that make up neighborhoods and the homogeneous land uses within districts typically evolve through four stages:

- *Growth:* A period during which the market area gains public favor and acceptance.
- *Stability:* A period of equilibrium without marked gains or losses.
- *Decline:* A period of diminishing demand.
- *Revitalization:* A period of renewal, redevelopment, modernization, and increasing demand.

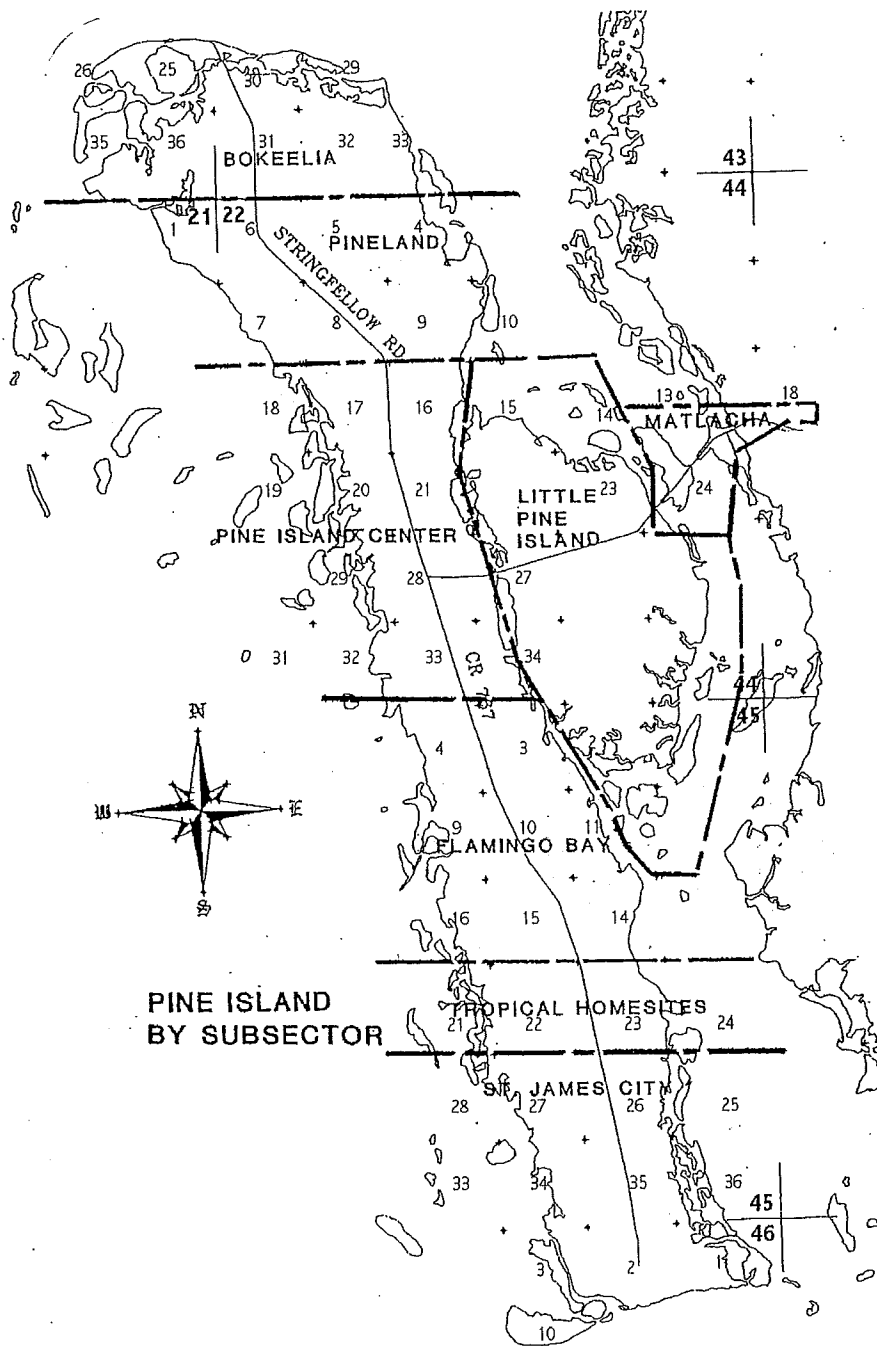
The Greater Pine Island market area is generally considered to be in a growth phase of its life cycle. Although residential growth has slowed somewhat from the 1980's, growth is inevitable. Of the "6,800 additional dwelling units" cited in Lee Plan Policy 14.2.2, about 6,675 dwelling units can be built at anytime without requiring further rezonings or subdivision approvals. Developer Russell Setti has proposed to build four projects on Pine Island: Harbour Walk Resort at Bokeelia (86 dwelling units, 48 hotel/condo rooms, and 10,000 square feet of commercial floor area), CreekWalk at Town Center (850 dwelling units, 182 hotel/condo rooms, and 400,000 square feet of commercial floor area), The Islands at Masters Landing (12 dwelling units), and Rag Island Marina and Resort (26 dwelling units, 25 hotel/condo rooms, and 10,000 square feet of commercial floor area). These projects are proposed for 1,045.2 acres, and are currently on hold until their review by an Administrative Judge.

In addition, an article titled "Values Leap by \$6 Billion" published in the News-Press on 02 June 2004, indicated that taxable property values within the Matlacha-Pine Island Fire District increased from \$995.9 million in 2003 to \$1.19 billion in 2004 (Estimated). Also, an explosion of agricultural activity on the northern half of Pine Island was not anticipated. The moderating influence of surrounding waters on the climate creates ideal growing conditions for certain tropical fruits such as mangoes, carambola, and lychees. Ornamental palms of several varieties are now being widely grown on Pine Island by individual farmers and larger growers such as Palmco and Soaring Eagle.

POPULATION AND DEMOGRAPHIC DATA

The Greater Pine Island community is generally located within U.S. Census Tracts No. 0701.00 and 0702.00. The 2000 U. S. Census indicates the following population and demographic data for these census tracts, as of 01 April 2000:

- *Total Population:* 9,016 persons.
 - 0-5 Years: 255 (2.8%).
 - 5-14 Years: 601 (6.7%).
 - 15-24 Years: 527 (5.8%).
 - 25-34 Years: 503 (5.6%).
 - 35-44 Years: 894 (9.9%).
 - 45-54 Years: 1,306 (14.5%).
 - 55-64 Years: 1,688 (18.7%).
 - 65+ Years: 3,242 (36.0%).



Area Map

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- *Total Households:* 4,421 households.
- *Population in Households:* 9,016 persons.
- *Housing Units:* 6,143 housing units.
 - *Owner Occupied:* 3,793 housing units (61.7%).
 - *Renter Occupied:* 628 housing units (11.3%).
 - *Vacant Units:* 1,722 housing units (28.0%).

The total household estimate above does not include manufactured housing units.

SUBMARKET IDENTIFICATION

The Greater Pine Island community is characterized by seven (7) “villages” or sub-markets which, according to the GPICPU, have been approved for 12,311 platted single-family residential lots. These sub-markets are identified as follows:

<u>Sub-Market</u>	<u>Total Lots</u>	<u>Existing Units</u>	<u>New Units</u>
Bokeelia	1,735	914	821
Pineland	2,022	322	1,700
Pine Island Center	2,269	873	1,396
Matlacha	1,029	695	334
Flamingo Bay	1,330	869	461
Tropical Homesites	713	259	454
St. James City	<u>3,213</u>	<u>1,705</u>	<u>1,508</u>
TOTALS:	12,311	5,637	6,674

Without any additional development approvals, the Greater Pine Island community is already permitted for an additional 6,674 additional dwelling units. The two largest villages are St. James City and Pine Island Center. The two villages with the greatest number of undeveloped permitted lots are Pineland and St. James City. Consequently, St. James City (at the southern end of the island) is expected to be the most heavily populated area of Greater Pine Island. Outside the village boundaries, all uplands have been designated “Rural” where residential development is limited to one dwelling unit per acre (1 du./ac.).

LEE PLAN FUTURE LAND USE DESIGNATIONS

The GPICPU has identified the following “future urban area” designations for the seven (7) villages identified above:

<u>FLUM Designation</u>	<u>Density Range</u>	<u>Acres</u>
Urban Community	1 to 6 du./ac.	1,350
Suburban	1 to 6 du./ac.	1,427
Outlying Suburban	1 to 3 du./ac.	1,557

“Urban Community” areas can have considerable concentrations of commercial uses, and thus were assigned to Pine Island Center and Matlacha, the commercial centers for all of Greater Pine

Island. "Suburban" areas are allowed similar densities for residential development, but with fewer commercial uses. This designation has been assigned to most of Bokeelia, and St. James City, and smaller areas around the Pink Citrus, Flamingo Bay, and Pinewood Cover mobile home parks. "Outlying Suburban" areas are allowed half the density of "Suburban" areas, but comparably limited commercial uses. This designation was generally assigned to all other settlements on Pine Island.

Outside the village boundaries, all high ground has been designated "Rural," where one residential dwelling unit per acre is permitted. After adoption of the GPICPU, this land use designation will be changed to "Coastal Rural" and will include 7,405 acres of land area. The allowable residential density within the proposed "Coastal Rural" area is based upon a sliding scale allowing increases in density per increases in preservation and restoration. If no land is preserved or restored, a maximum density of one (1) dwelling unit per ten (10) acres is permitted. A maximum density of one (1) dwelling unit per one (1) acre would be permitted if 70 percent of the land were preserved or restored to native upland habitat. Development would be clustered on that portion of the site located outside of the preserved or restored areas.

PUBLIC UTILITIES AND SERVICES

The Greater Pine Island community enjoys a wide range of public utilities and services. These range from:

- *Public Water:* The Greater Pine Island Water Association, Inc. provides potable water to most all of Pine Island. The water plant is characterized by 2.2 mgpd of capacity, with 1.7 mgpd currently being consumed. Water is stored on-site in one (1) three million gallon tank and one (1) two million gallon tank. A sixteen inch (16") water main runs south along Stringfellow Road from the water plant to St. James City, and a twelve inch (12"), ten inch (10"), and eight inch (8") water main runs north along Stringfellow Road to Bokeelia.
- *Waste Water Treatment:* Waste water is disposed of on Pine Island by septic tanks and drain fields, privately owned waste water treatment plants, and by Lee County Utilities. Lee County Utilities provides service to Matlacha, Little Pine Island, and Pine Island from Pine Island Center south to Cherry Estates (York Drive). This public utility is currently at capacity with a 247,000 gpd treatment plant. Youngquist Brothers, Inc. are currently installing deep injection wells as part of a permanent solution and a spray irrigation system is currently being used as part of a temporary solution.
- *Telephone Service:* Telephone service is provided to the Greater Pine Island market area by Sprint and various wireless carriers.
- *Electrical Service:* Electrical service is provided to the Greater Pine Island market area by the Lee County Electric Co-operative.
- *Solid Waste Removal:* Solid waste removal is provided to the Greater Pine Island market area by Waste Management. Fees for this service are charged annually as part of ad valorem tax bills or by private contract.

- *Internet Access:* High speed internet access is provided to most of the Greater Pine Island market area by Comcast. Dial-up internet access is also available through Sprint or various wireless providers.

TRANSPORTATION ISSUES

Access to the Greater Pine Island community is typically provided by Pine Island Road, which runs westerly from Burnt Store Road to its intersection with Stringfellow Road at Pine Island Center. Stringfellow Road provides access from St. James City to Bokeelia. The public roadways are further described as follows:

- *Pine Island Road:* Pine Island Road is a two-lane, two-way, east-west arterial road which is reported in the Lee County Department of Transportation's – "2003 Traffic Count Report" as having an Average Annual Daily Traffic volume of 11,500 vehicles at Matlacha Pass, as compared to 11,200 in 2002.

Lee Plan Policy 14.2.2, the "810/910 Rule," indicates that when traffic on Pine Island Road between Burnt Store Road and Stringfellow Road reaches 810 peak hour, annual average, two-way trips, further rezonings which increase traffic on Pine Island Road are restricted, and when it reaches 910 peak hour, annual average, two-way trips, there are further restrictions on residential development orders. According to Pete Eckenrode, Director, Lee County Development Services, there has been no official notification (Concurrency Inventory and Management Report: December 2003) of Pine Island Road's capacity failure regarding the "810/910 Rule," as of 23 March 2004. Mr. Eckenrode indicated that official notice could not be given before October 2004.

Besides the existing bridge width constraints between Pine Island and the mainland, Pine Island Road through Matlacha is also constrained. In fact, the County has designated this segment of roadway through Matlacha as "constrained," as identified in Table 2(a), *Constrained Roads*, of the Lee Plan. Lee Plan Objective 22.2, *Constrained Roads*, states that constrained roads will not be widened. Widening and adding lanes to other segments of Pine Island Road without doing the same through Matlacha would only create bottleneck conditions for traffic approaching the constrained area (as well as bridge crossings).

Lee Plan Policy 14.2.3 states that the County will take whatever actions are feasible to increase the capacity of Pine Island Road. Working within the existing 66-foot wide right-of-way conditions through Matlacha, it may be possible to increase the number of lanes from two to three. The additional lane could function as a two-way left turn lane or a reversible lane to accommodate the heavier directional flow of traffic during the AM and PM hours. However, adding a traffic lane would require road widening, which could exacerbate the problems of pedestrian circulation and parking for business and homes in an area with little room for adjustment.

MATLACHA HISTORIC DISTRICT

Matlacha is a Lee County-designated historic district. Many of the buildings along Pine Island Road in the district abut the right-of-way directly or are located very close to it. According to a 1982 estimate cited in the GPICPU, widening the existing right-of-way to 90 feet (from 66 feet) would result in as many as 75 businesses and homes being altered or removed. This alternative would be cost prohibitive.

It is physically possible to reconstruct this segment of Pine Island Road within the 66-foot right-of-way into a four lane road; however, this configuration would not allow for left-turn bays and would eliminate existing, much need parking currently within the right-of-way used by stores and homes, as many of the buildings are located along or the right-of-way edge. Regardless of any of these measures taken to increase the number of lanes through Matlacha, such actions would still be limited to the constraints of the adjacent two-lane bridges.

LAND COVER SUMMARY

According to 1996 Geographic Information System ("GIS") data prepared by the South Florida Water Management District ("SFWMD") and presented on page 13 of the "GPICPU," Pine Island consists of the following land classifications:

- Wetlands: 13,088 acres, 52.0% of land area.
- Agriculture: 2,763 acres, 22.5% of upland land area.
- Forests: 4,853 acres, 39.5% of upland land area.
- Urban: 4,676 acres, 38.0% of upland land area.

Current estimates have increased the quantity of agricultural lands to 3,210 acres, allocated 2,355 acres to active farming (e.g. groves, row crops, etc.) and 855 acres to passive farming (e.g. pasture, non-active uses, etc.). While Pine Island has seen an increase of farming (by 447 acres), Lee and Collier counties lost more than 105,000 acres of farmland, according to the 2002 Census of Agriculture.

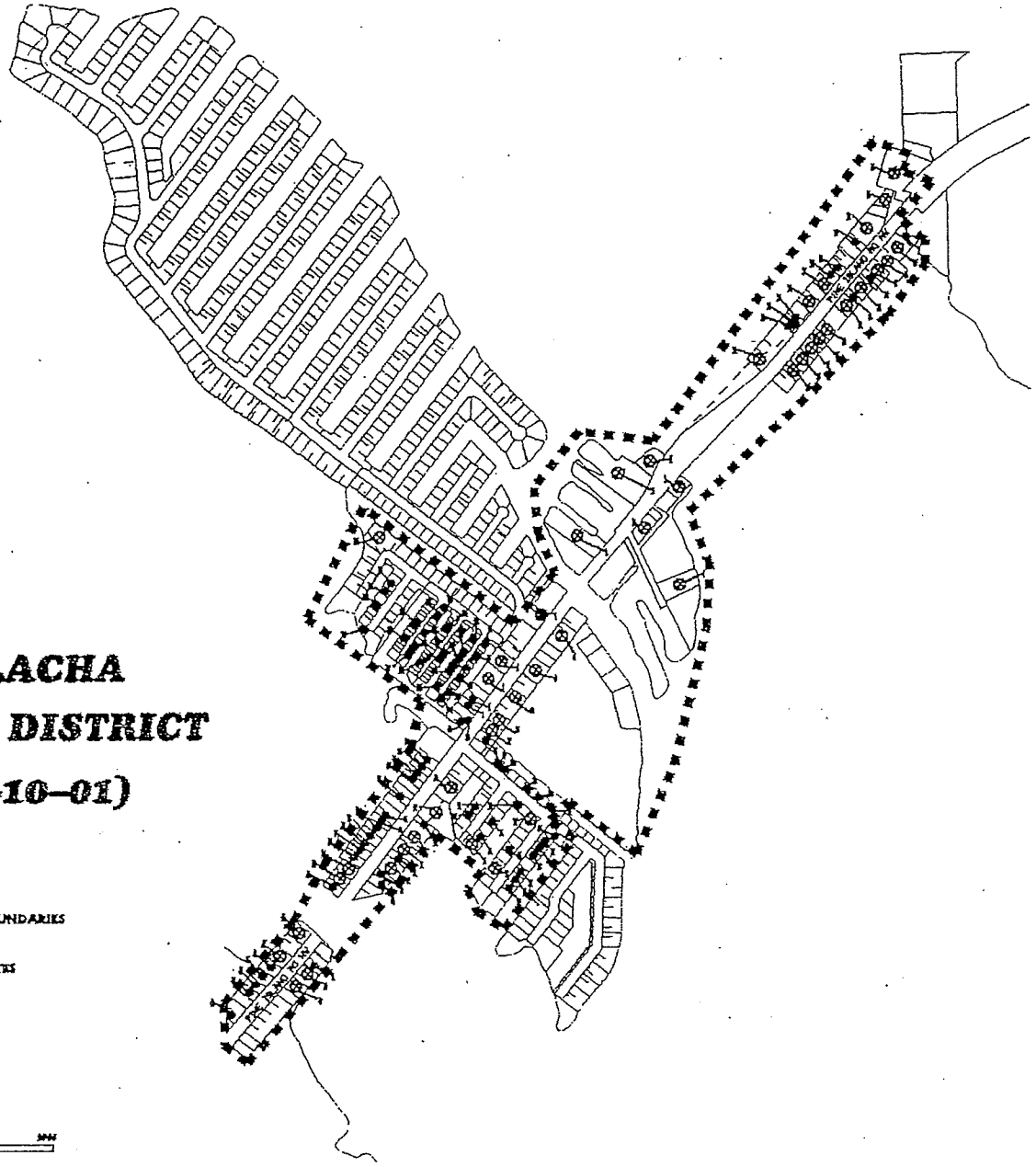
**MATLACHA
HISTORIC DISTRICT
(HD-90-10-01)**

■■■■■ DISTRICT BOUNDARIES

⊗ HISTORIC SITES



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SCALE IN FEET



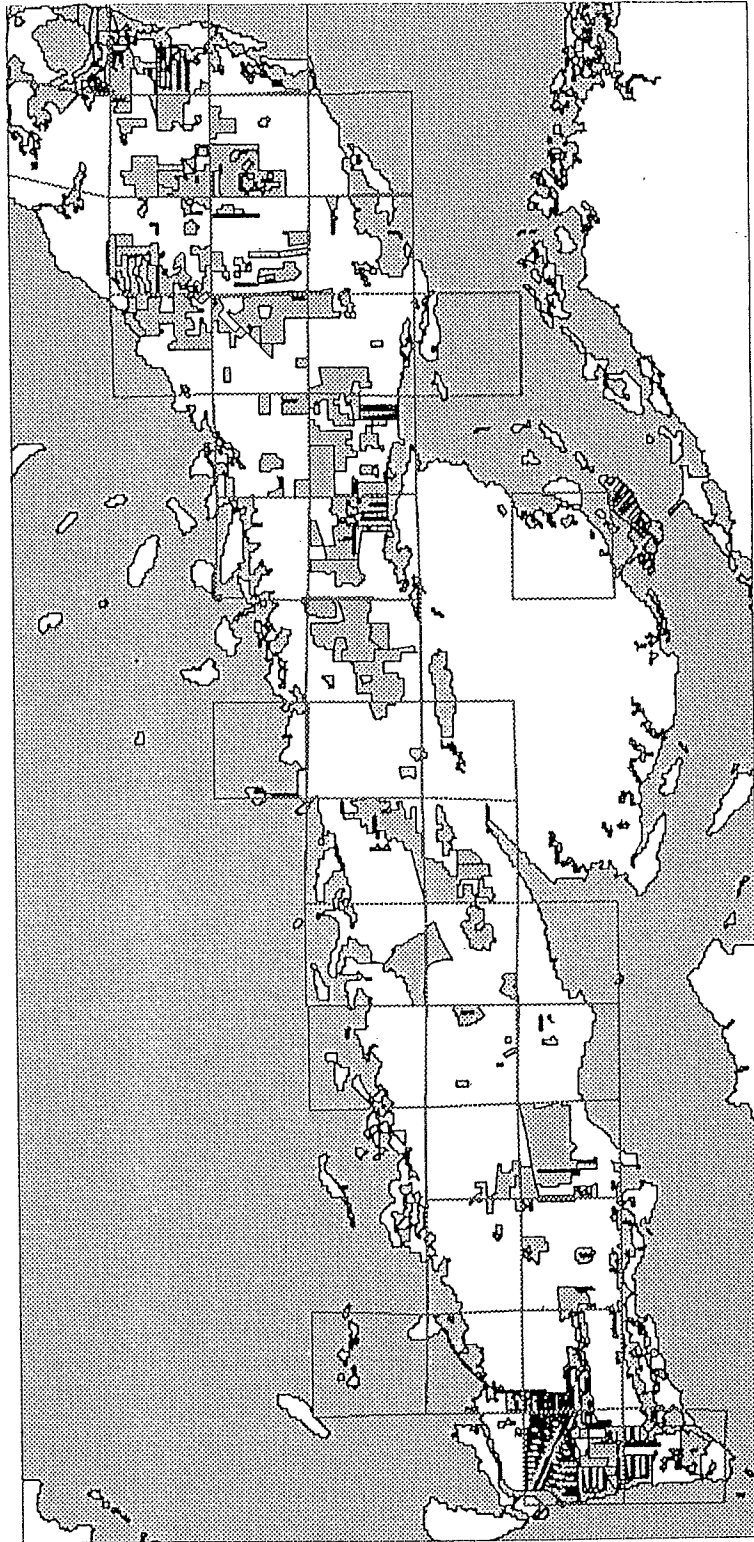
Designated historic district in Matlacha

Area Map

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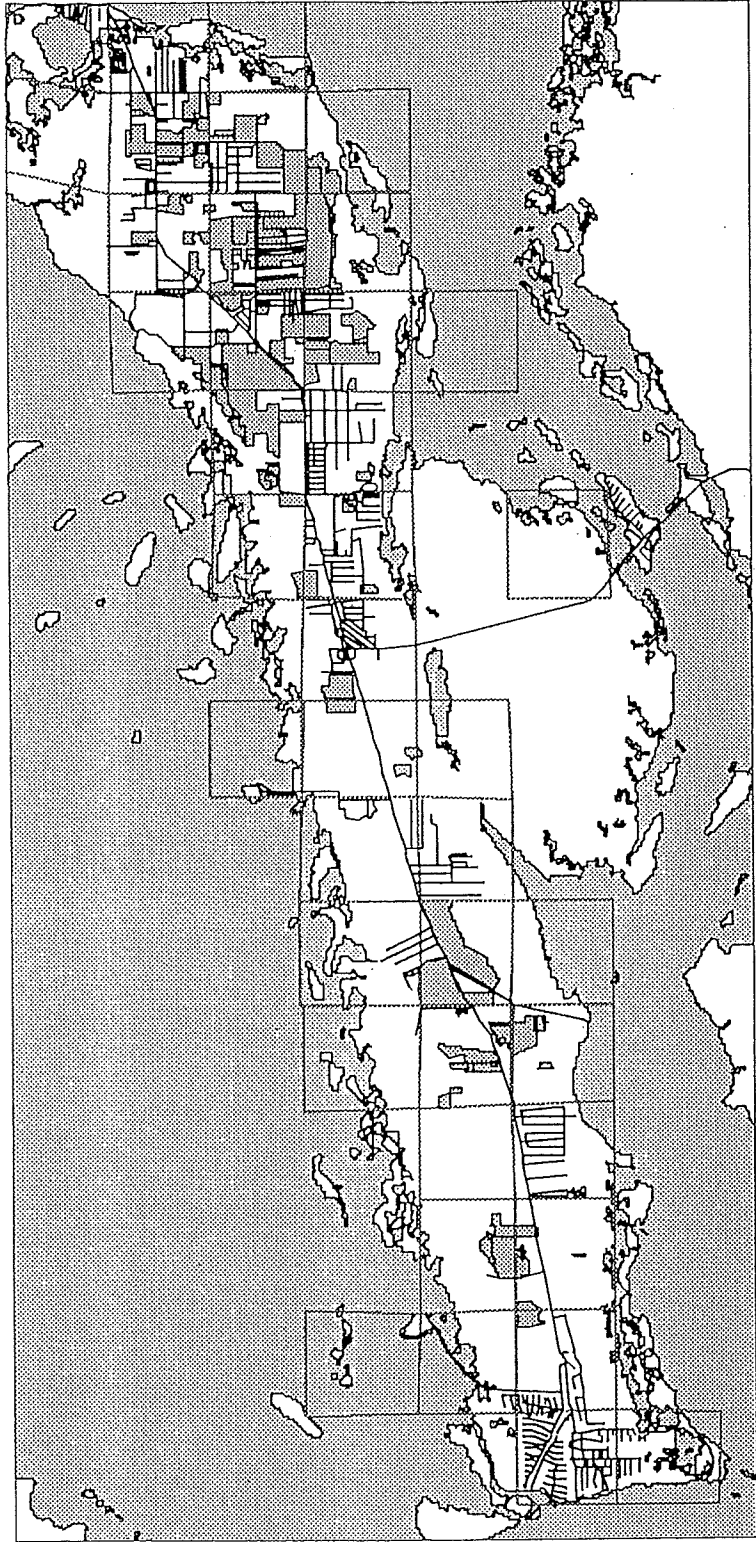




Urban, 4,676 acres, 38% of uplands

Area Map

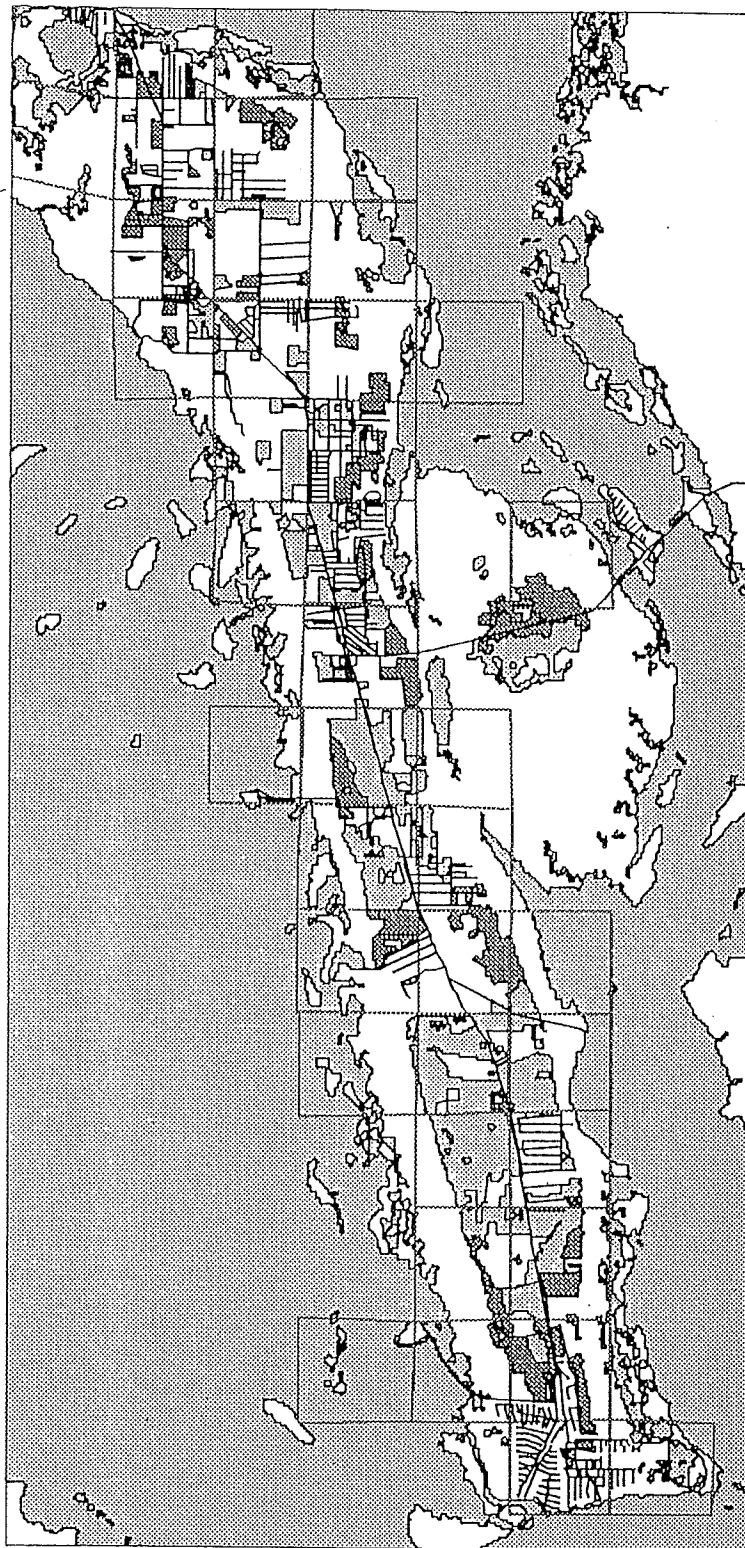




Agriculture, 2,763 acres, 22½% of uplands

Area Map



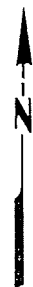


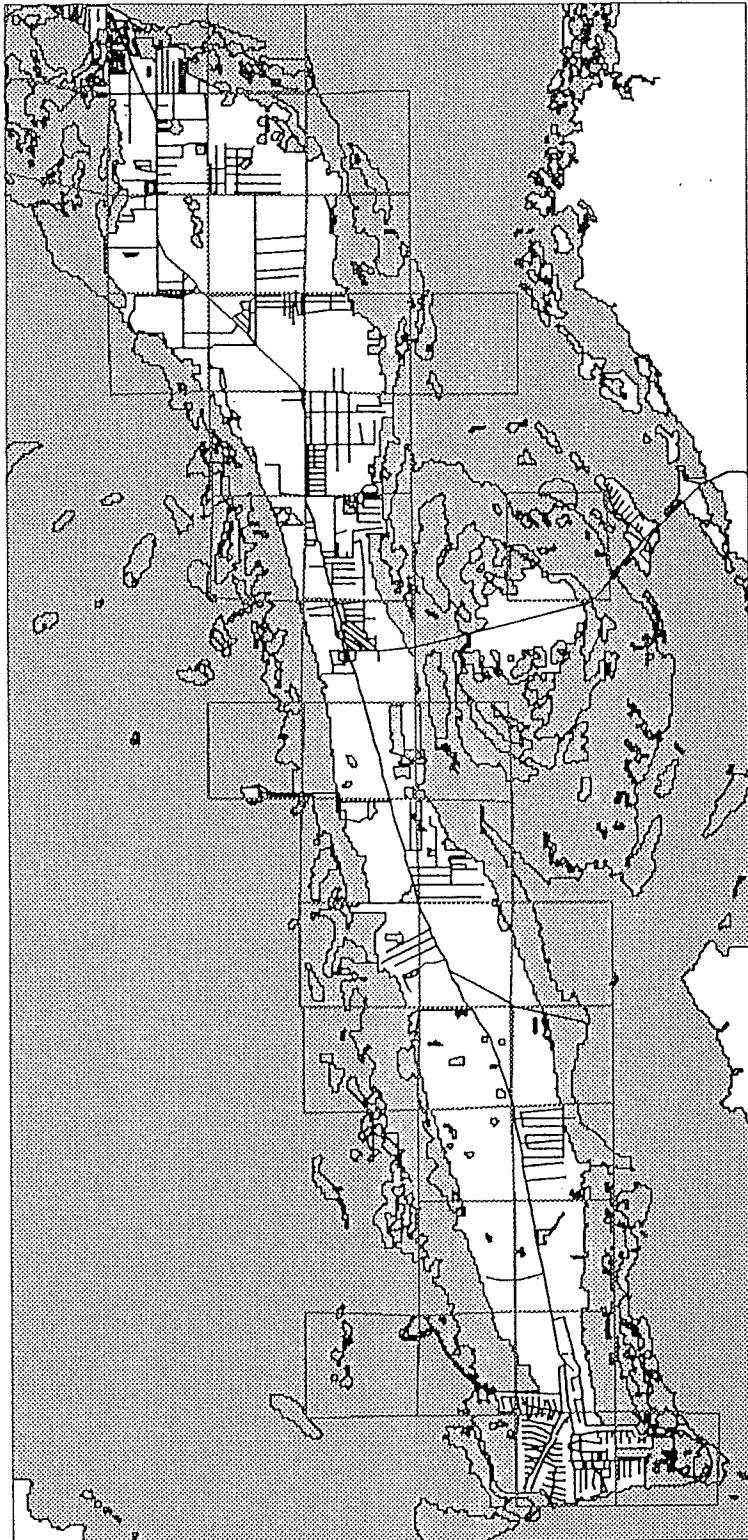
*Forests, 4,853 acres, 39½% of uplands
(pine flatwoods, lighter color, 22½%;
exotic infested, darker color, 17%)*

Area Map

HREA

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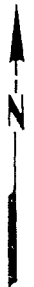


Wetlands, 13,088 acres, 52% of land

Area Map

HREA

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**SURVEY OF REAL ESTATE PROFESSIONALS
ON
GREATER PINE ISLAND MARKET AREA**

SURVEY OF PINE ISLAND REAL ESTATE PROFESSIONALS

INTRODUCTION

The appraiser consultant has interviewed several real estate professionals with extensive experience relating to the Greater Pine Island market area. The purpose of the survey was to measure their impressions, responses and concerns in regards to the Greater Pine Island Plan Update. Each of the respondents are actively involved in the brokerage of properties in the Greater Pine Island market area and currently have properties listed for sale and purchase. The following overview is presented of the survey questions and the respondents comments.

OVERVIEW OF SURVEY RESPONDENTS, QUESTIONS AND RESPONSES

The survey questions focused on the proposed "Coastal Rural" future land use designation, the "density recapture model," the "810/910" rule, and the consideration of "minor changes" to Pine Island Road through Matlacha (e.g. a continuous third lane, turning lanes at local street intersections). The survey respondents included the following individuals:

- Richard Krieg, Broker, Pine Island Realty, 239-283-1028.
- Mike Shevlin, Broker, Pine Island Realty, 239-283-3700.
- Kevin Cox, Broker, Century 21 Sunbelt Realty, 239-283-1100.
- Marty Yettin, Broker, Gold Key Realty, 239-283-1007.
- Greg Eagle, Broker, Eagle Realty, 239-542-2333.

The following questions were asked and responses obtained from the respondents identified above:

1. As you know, Lee County is currently considering changes to the Lee Plan that relate to the Greater Pine Island market area. I am completing a survey of local real estate professionals for the purpose of sampling their opinions regarding their perception of the economic impacts associated with these proposed changes.
 - a. The proposed changes to the Lee Plan include the creation of a new designation to the FLUM identified as "Coastal Rural," which shall replace the existing "Rural" FLUM designation. The allowable density for the "Coastal Rural" FLUM designation is 1 du./10 ac., whereas, the allowable density for the existing "Rural" FLUM designation is 1 du./1 ac. What is your opinion regarding the change in FLUM categories and its impact on property values?

Each of the survey respondents replied, without exception, that it was their opinion that the creation of the new "Coastal Rural" future land use designation and its reduction in allowable densities would in and of itself decrease property values. Specific comments included:

- *With residential development costs at \$18k to \$20k per lot, the reduced density will affect the feasibility of residential development.*
 - *Property values will initially go down and stabilize later.*
 - *It's an unfair move that hurts large tracts and helps small tracts.*
 - *The rumor of the future land use change has had an effect on the market.*
 - *Property values will be diminished about 40% to 50%.*
- b. The "Coastal Rural" FLUM designation proposes a "density recapture model" which would allow a maximum density of 1 du./1 ac. if 70% of the land were preserved or restored to native upland habitat. How does this affect your views?

The survey respondents generally lacked specific technical knowledge relating to the "density recapture model" proposed with the Greater Pine Island Plan Update. However, those that did seemed to fall into two groups: a) brokers with relationships with residential developers who already cluster residential product lines or b) brokers with relationships to the agricultural community that generally perceived the cost to restore agricultural lands (e.g. palm tree groves) to a native upland habitat condition to be cost prohibitive. Specific comments included:

- *Already doing this at Demery Reserve.*
 - *Residential subdivisions are more efficient if the lots are 90 feet to 100 feet wide, as opposed to 1.0 acre lots.*
 - *The 70% open space will create value to the 30% development area.*
 - *Like the idea of clustering, but would prefer it to be permissive as opposed to mandatory.*
 - *Clustering limits product diversity.*
 - *Residential developments will all look the same (i.e. "like south Fort Myers.").*
 - *Still hurts the large agricultural tracts. Too expensive to convert the land back to native upland habitat.*
 - *Clustering doesn't matter as much as letting the island grow.*
 - *Restoring land to native upland habitat will be very expensive to do and maintain.*
 - *Process is too expensive and imposes an administrative burden.*
- c. The Lee Plan (Policy 14.2.2 – "the 810/910 rule") restricts re-zonings on Greater Pine Island when traffic between Burnt Store Road and Stringfellow Road reaches 810 peak hour annual average two way trips and restricts new development orders on Greater Pine Island when traffic reaches 910 peak hour annual average two way trips. Considering that the "Coastal Rural" FLUM designation will provide relief from this policy, does your view change regarding value impacts?

The survey respondents, with one exception, indicated the relief or relaxation of the zoning and development order restrictions provided by the Greater Pine Island Plan Update would not change their views regarding property value impacts. Specific comments included:

- *Did rezoning in 2000 under 810 Rule and there were still too many restrictions (e.g. roof type, type of building, etc.)*
 - *Won't help the farmer at all.*
 - *No, not really, but the 810/910 Rule needs to go in place.*
 - *Matlacha is a pedestrian walkway, we need a \$50 million bridge.*
 - *If you can still develop at 1.0 unit per acre, cluster on 30% of your site, avoid 810/910 Rule impacts, then the Greater Pine Island Plan Update will have no impact on property values.*
- d. The Lee Plan (Policy 14.2.3) requires Lee County to consider “minor means” to increase the capacity of Pine Island Road. Would you be in favor of a third-turn lane, or turning lanes at intersections with local roads in Matlacha if it increased the level of service of Pine Island Road and forestalled the “810/910” rule?

The respondents generally viewed any “minor improvements” to Pine Island Road that would increase its level-of-service (e.g. “LOS”) as favorable. However, there was concern about protecting the historic nature of the Matlacha area. Specific comments included:

- *Needs to be looked at carefully.*
- *Would be in favor absolutely.*
- *Widening of Pine Island Road through Matlacha would hurt the historic district.*
- *Need lights for pedestrians.*
- *Too short-term of a solution.*
- *Should four-lane Pine Island Road or build a fly-over bridge.*

SUMMARY AND CONCLUSIONS

In conclusion, the respondent comments generally indicated the following viewpoints and perceptions:

- The reduction in the allowable density associated with the proposed Coastal Rural future land use district will cause a reduction in property value. One respondent estimated a 40% to 50% reduction in property values.
- There was a general lack of knowledge regarding the “density recapture model” relating to the proposed plan amendments. One respondent indicated that this is the development model they currently employ and that the 70% open space would add value to the 30% area where development was clustered.

- The respondents generally indicated that cost to restore land to its native upland habitat would be cost prohibitive, especially to the agricultural lands (e.g. palm tree farms) with reservoirs, ditches, canals, and laser-leveled land.
- It seems as though the consensus among the respondents was that traffic was a problem for the Pine Island market area and that the “810/910” rule was needed. One respondent (with significant residential development experience) indicated that if the proposed amendments were adopted (e.g. Coastal Rural, density recapture, relaxation of the 810/910 rule, etc.) as currently proposed, there would be no economic impact on property values.
- There also seemed to be a consensus that “minor measures” to increase the level-of-service of Pine Island Road through Matlacha should be considered. There was concern that “minor measures” may not provide enough relief to the traffic conditions and that the historic character of Matlacha should be guarded.

The survey also generated additional comments by the respondents that were not necessarily responsive to the survey questions, but provided additional insight into the current economic nature of the Greater Pine Island real estate market. These comments include:

- One broker commented that the pendency of the GPICPU has accelerated the demand for residential lots, but has hurt the demand for larger tracts of undeveloped land.
- Two of the brokers indicated that demand for residential product on in the Greater Pine Island market area is very high and that lot prices have inflated dramatically. Examples included, without limitation, the sale of a “B-grade”, off-water lot in the Tropical Homesites area for \$68,200 (e.g. full asking price) after four days on the market. A proposed 76 lot residential development identified as Demery Reserve took 20 deposits for lots priced at \$77,500. Lots in Kraemer’s Avocado Subdivision have increased to \$40,000. Another broker indicated that he received reservations on 12 lots in Eagle Lake, a proposed 45 lot single family residential development, for prices ranging from \$55,000 to \$75,000 within one hour of market exposure. The property was taken off the market and the developer is anticipating a price increase to \$75,000 to \$100,000 per lot.
- Like much of Lee County (e.g. Cape Coral, Lehigh Acres, etc.), Pine Island has felt tremendous upward pricing pressure over the last 18 months to 24 months. This phase of the real estate market cycle has been fueled by baby boomer demand, low interest rates, and second-home buyers.

**ANALYSIS
OF THE
GREATER PINE ISLAND
LAND MARKET**

ANALYSIS OF THE GREATER PINE ISLAND LAND MARKET

INTRODUCTION

The appraiser consultant has completed research focusing on recent sales of unimproved tracts of land located within the Greater Pine Island market area. The purpose of the research is to identify prevailing price levels for properties designated "Rural" on the Future Land Use Map ("FLUM") of the Lee Plan. This data will provide the starting point or base-line for property values on Pine Island before the appraiser consultant reviews additional data to determine if the proposed amendments to the Lee Plan (contained within the Greater Pine Island Plan Update) will affect property values.

MARKET SEGMENTS

The Pine Island land market is characterized by three market segments. These include (without exception):

- *Public Agencies:* Public agencies such as Lee County's "Conservation 2020" Program have been active in acquiring vacant tracts of land on Pine Island. The appraiser consultant met with Robert Clemens with the Lee County Office of County Lands to discuss Lee County's involvement in this market. Mr. Clemens indicated that their motivation is preservation of pine flatwoods. He indicated that sellers typically approach the Office of County Lands to begin the acquisition process. Mr. Clemens indicated that in late 2002, the market prices typically ranged from \$15,000 per upland acre to \$20,000 per upland acre.
- *Speculators and Developers:* The individual who currently appears to be having the greatest impact on the Pine Island market area is Russell M. Setti, a Florida real estate registered broker/owner who is proposing development of 1,045.3 acres in four (4) different areas under F.S. 380.061, "Florida Quality Development" program. The appraiser consultant met with Mr. Setti at the office of his attorney Russell Schropp, Esq. Mr. Setti provided the appraiser consultant with a document titled "Summary – A Proposed Florida Quality Development on Pine Island," and a CD Rom. Mr. Setti is proposing four separate developments identified as HarbourWalk Resort at Bokeelia, CreekWalk at Town Center, The Islands at Masters Landing, and Rag Island Resort and Marina.
- *Agricultural Investors:* Due to Pine Island's moderate climate, intensive agricultural users are having a big impact on the Island. Ornamental palms, tropical fruits and some vegetables are being grown throughout Pine Island, with the greatest concentration of agricultural activity occurring in the north portion of Pine Island near Bokeelia. The two largest ornamental palm growers and managers are Palmco, Inc. and Soaring Eagle. The appraiser consultant met with Ed Dean to discuss the Greater Pine Island Plan Update and his perception of the impacts that will result from the implementation of the Plan. Briefly, the farmers will have the most difficult time and face the greatest capital expenditures as they "reverse engineer" their farm fields in order to implement the

“density recapture model”. This will be accomplished by filling reservoirs, canals, ditches, laterals, etc. Furthermore, laser-leveled fields will have to be modified to accommodate the Plan’s requirement for suitable biological conditions for understory growth and stabilization.

LAND PRICES FOR “RURAL” LANDS ON PINE ISLAND

The following table is presented as a summary of information related to recent transactions of land designated “Rural (1 du./ac.)” and located within the Greater Pine Island market area:

<u>Sale No.</u>	<u>Sale Date</u>	<u>Location</u>	<u>Size (Acres)</u>	<u>FLUM</u>	<u>Sales Price</u>	<u>Price Per Acre</u>
1893	May-02	Beau Lane	10.290	Rural	\$185,000	\$17,979
1886	Aug-02	Stringfellow Road	19.200	Rural	\$280,000	\$14,583
1889	Jan-03	Kraemer's	9.255	Rural	\$194,000	\$20,962
2019	Feb-03	Kraemer's	10.000	Rural	\$160,000	\$16,000
1891	Feb-03	Beau Lane	10.000	Rural	\$135,000	\$13,500
1883	Apr-03	Stringfellow Road	280.000	Rural/WL/Conserv	\$2,829,100	\$10,104
1875	May-03	Kraemer's	20.000	Rural	\$400,000	\$20,000
2024	May-03	Harbor Drive	10.000	Rural	\$200,000	\$20,000
1878	Sep-03	Maria Drive	10.210	Rural	\$183,800	\$18,002
1887	Sep-03	Maria Drive	10.210	Rural	\$205,000	\$20,078
1890	Sep-03	Maria Drive	10.210	Rural	\$185,200	\$18,139
2107	Sep-03	Stringfellow Road	29.086	Rural	\$680,911	\$23,410
2016	Feb-04	Stringfellow Road	148.590	Rural & WL	\$1,800,000	\$22,904
2022	Feb-04	Stringfellow Road	10.000	Rural	\$285,000	\$28,500
2026	Apr-04	Howard Rd	9.320	Rural	\$318,000	\$34,120
2023	May-04	Kraemer's	20.000	Rural	\$600,000	\$30,000
2017	Jun-04	Stringfellow Road	5.020	Rural	\$209,900	\$41,813
Min. Price Per Ac.					\$10,104	
Max. Price Per Ac.					\$41,813	
Avg. Price Per Ac.					\$21,770	

The Rural sales identified above are located within the 7,405 acre area proposed by the GPICPU for amendment to the Coastal Rural FLUM. The FLUM sales were transacted between May 2002 and June 2004, ranged in size from 5.02 acres to 280.0 upland acres (or 365.0 gross acres), and indicated a price range from \$10,104 per acre to \$41,813 per acre. The sample indicated a mean of \$21,770 per acre, a median of \$20,000 per acre, and a mode of \$20,000 per acre. In regards to measures of dispersion, the sample indicated a standard deviation of \$7,954 per acre, and a range of \$31,709 per acre.

LAND PRICES FOR “OUTLYING SUBURBAN” LANDS ON PINE ISLAND

The following table is presented as a summary of information related to recent transactions of land designated “Outlying Suburban (3 du./ac.)” and located within the Bokeelia market area of Pine Island, Florida:

<u>Sale No.</u>	<u>Sale Date</u>	<u>Location</u>	<u>Size Acres</u>	<u>FLUM</u>	<u>Sales Price</u>	<u>Price Per Acre</u>
2033	May-02	Quail Trail	5.147	Outlying Suburban	\$135,000	\$26,229
2040	Nov-02	Barrancas	5.320	Outlying Suburban	\$356,000	\$66,917
2037	Dec-03	Barrancas	1.450	Outlying Suburban	\$110,000	\$75,862
2036	Mar-04	Barrancas	1.290	Outlying Suburban	\$110,000	\$85,271
2025	Mar-04	Stringfellow Rd	34.500	Outlying Suburban	\$907,700	\$26,310
2034	May-04	Barrancas	1.290	Outlying Suburban	\$110,000	\$85,271
2035	May-04	Barrancas	1.290	Outlying Suburban	\$110,000	\$85,271
					Min. Price Per Ac.	\$26,229
					Max. Price Per Ac.	\$85,271
					Avg. Price Per Ac.	\$64,447

The Outlying Suburban sales identified above are located within the 157 acre area proposed by the GPICPU for amendment to Coastal Rural on the FLUM. Sale 2040 is a former palm grove that was purchased by Wayne and Donna Sterling. The warranty deed was executed on November 13, 2002, but was not recorded until July 16, 2003. The initial purchase by the Sterlings indicated \$66,917 per acre. The property was subdivided into four lots which were each sold for \$110,000 or \$75,862 per acre to \$85,271 per acre (Sales 2034 through 2037). These series of transactions demonstrate a change in highest and best use from agriculture to residential, and a significantly higher price level for Outlying Suburban lands than Rural lands.

LAND PRICES FOR “DR/GR” LANDS IN LEE COUNTY

The following table is presented as a summary of information related to transactions of land designated “Density Reduction/Groundwater Resource (1 du./10 ac.)” and located throughout the Lee County market area:

<u>Sale No.</u>	<u>Sale Date</u>	<u>Location</u>	<u>Size Acres</u>	<u>FLUM</u>	<u>Sales Price</u>	<u>Price Per Acre</u>
716	Aug-99	Corkscrew Rd	275.47	DR/GR-WL	\$2,106,000	\$7,645
810	Nov-99	Corkscrew Rd	637.80	DR/GR-WL	\$4,943,000	\$7,750
1349	Jun-00	Corkscrew Rd	604.83	DR/GR-WL	\$2,602,000	\$4,302
1350	Aug-00	Corkscrew Rd	150.00	DR/GR-WL	\$658,800	\$4,392
1445	May-01	Burnt Store Rd	429.65	DR/GR-WL	\$1,825,000	\$4,248
1462	Aug-01	Alico Rd	558.32	DR/GR-WL	\$3,100,000	\$5,552
1329	Feb-02	I-75/Lee-Charlotte	2,388.12	DR/GR-WL	\$6,350,000	\$2,659
1668	Jun-02	Corkscrew Rd	227.90	DR/GR-WL	\$1,080,900	\$4,743
1664	Aug-02	SR-82	970.43	DR/GR-WL	\$3,244,300	\$3,343
1652	Sep-02	SR-82/Schewe	2,054.00	DR/GR-WL	\$6,275,000	\$3,055
2030	Jun-03	Nalle Grade Rd	40.00	DR/GR-WL	\$181,800	\$4,545
1934	Mar-04	North River Road	1,114.00	DR/GR-WL	\$8,407,600	\$7,547
					Min. Price Per Ac.	\$2,659
					Max. Price Per Ac.	\$7,750
					Avg. Price Per Ac.	\$4,982

The sales were transacted between August 1999 and March 2004, ranged in size from 40.0 acres to 2,388.1 gross acres, and indicated a price range from \$2,659 per acre to \$7,750 per acre. The sample indicated a mean of \$4,982 per acre, and a median of \$4,469 per acre. In regards to measures of dispersion, the sample indicated a standard deviation of \$1,785 per acre, and a range of \$5,091 per acre. There are no Density Reduction/Groundwater Resource (“DR/GR”) designated properties located in the greater Pine Island market area. Therefore, the appraiser consultant investigated areas designated DR/GR throughout the Lee County market area. The DR/GR sales located along Corkscrew Road or Alico Road are in an area influenced by mining and excavation. The balance of the properties, located in north Lee County (north of SR 78–North River Road), are typically purchased for low-density rural residential development.

SUMMARY AND CONCLUSION

In summary, the appraiser consultant has reviewed data relating to sales of properties designated Rural (1 du./ac.) and Outlying Suburban (3 du./ac.), and located within the greater Pine Island market area. Each of these transactions are subject to pre-existing conditions (e.g. Matlacha historic district, constrained roadway designation, 810/910 rule, etc.) which affect use and value of the properties. This data will be used to obtain a value estimate for Pine Island properties before the adoption of the Coastal Rural (1 du./10 ac.) FLUM designation proposed by the GPICPU. The appraiser consultant has also identified several Density Reduction/Groundwater Resource (1 du./10 ac.) land sales located throughout Lee County (there are no DR/GR areas on Pine Island) for the purpose of estimating the value of properties after the adoption of the proposed, similar-density, Coastal Rural (1 du./10 ac.) FLUM designation.

Based upon the price levels indicated by the sales data in each of the three FLUM designations, it is the appraiser consultant's opinion the value of the Rural (1 du./ac.) properties on Pine Island is \$25,000 per gross acre, the value of the Outlying Suburban (3 du./ac.) properties within the 157 acre area identified by the GPICPU is \$65,000 per acre, and the value of properties within the Density Reduction/Groundwater Resource (1 du./10 ac.) is \$7,500 per acre.

These units of value will be used for "order of magnitude" purposes in estimating the economic impact expected to occur to the greater Pine Island market area as a result of the GPICPU and its Coastal Rural (1 du./10 ac.) FLUM designation with a "density recapture model" available through restoration and/or preservation of native upland habitats and the utilization of clustered development. These value units are not intended to reflect the value of a specific property, but are being used to analyze macro economic market impacts.

**DETERMINATION
OF
ECONOMIC IMPACTS
TO THE
PINE ISLAND MARKET AREA**

DETERMINATION OF ECONOMIC IMPACTS TO THE GPIMA

INTRODUCTION

In this portion of the appraisal consulting report, the appraisal consultant will provide the reader with an overview of those economic impacts which might occur to the greater Pine Island market area if the 09 January 2003 changes to the Land Plan are made final as presently written and are implemented through the regulations formulated by the GPICA.

The central focus of this analysis identifies two major components to be analyzed by the appraiser consultant. These are summarized as follows:

- Address property value impacts (if any) associated with changes to the "FLUM" from the Rural (one dwelling unit per acre) category to the Coastal Rural (one unit per ten acres) category, which requires clustering to maintain the previous density levels, and;
- Consider the impact of the plan's relaxation of previous restrictions (Policy 14.2.2) on rezoning and on approval of new residential development orders that are triggered by the 810/910 traffic count milestones.

This analysis includes the 157 acres of agricultural and residential land between Bokeelia and September Estates in 31-43-22, bounded by Quail Trail on the west, Barrancas Street on the north, Stringfellow Road on the east, Unit A of Rapid #1 subdivision (Cobb Road) on the north, the quarter section line of Section 31 on the east and Pinehurst Acres and September Estates on the south. This land area will be reclassified as "Coastal Rural," from its current "Outlying Suburban" future land use designation.

PRE-EXISTING CONSIDERATIONS

The "GPICPU" identifies several pre-existing conditions that affect land utilization and property values whether or not it is adopted as currently proposed. These issues must be understood so that their impacts are not misconstrued as impacts *resulting* from the "GPICPU." The following pre-existing issues are identified:

- *Constrained Road Designation:* Lee County has designated certain roads that cannot (or should not) be widened as "constrained." Lee Plan Objective 22.2 accepts a trade-off of reduced peak hour levels of service for preservation of scenic, historic, environmental and aesthetic character of a community. The Matlacha section of Pine Island Road has been designated as "constrained" since 1989.
- *Matlacha Historic District:* Following the designation of Pine Island Road as a "constrained road" in 1989, Lee County designated the central portion (about 45 buildings) of Matlacha as a historic district in 1990. This designation would not legally prevent Lee County from altering or demolishing historic buildings, but it indicates the historic value of many of Matlacha's buildings in addition to its unique village character.

- *The 810/910 Rule:* Policy 14.2.2 of the Lee Plan indicates that when traffic on Pine Island Road between Burnt Store Road and Stringfellow Road reaches 810 peak hour, annual average, two-way trips, further rezonings which increase traffic on Pine Island Road are restricted, and when traffic reaches 910 peak hour, annual average, two-way trips, there are restrictions on further residential development orders.

According to Pete Eckenrode, Director of Lee County's Division of Development, Department of Community Development, the 810 and 910 thresholds have been exceeded. The Concurrency Inventory and Management Report ("CIMR"), containing this data, will be submitted to the Lee County Board of County Commissioners in November or December 2004 for inclusion in the Lee Plan.

SUMMARY OF EXPECTED IMPACTS

In summary, it is the appraiser consultant's opinion that the following economic impacts (favorable and unfavorable) will occur to those properties currently designated "Rural" on the "FLUM" and proposed for a change to the "Coastal Rural" future land use district:

- Those properties with sufficient native upland habitat (4,853 acres of forest area – 22.5 percent of Pine Island's upland area) will find relief from the relaxation of the restrictions associated with the "810/910 Rule", or Lee Plan Policy 14.2.2, and may develop their properties with clustered development. By preserving the existing on-site native upland habitat, these properties should be able to recapture most if not all of the densities previously permitted under the pre-existing "Rural" land use category, and avoid any loss of market value.
- Those properties without sufficient native upland habitat (typically cleared agricultural properties) will be required to restore and preserve lands in order to recapture the density levels that were previously permitted under the pre-existing "Rural" land use. The restoration process will be extremely expensive for intensive agricultural properties (e.g. with surface water management systems in place) where "reverse engineering" will be necessary, and less expensive for passive agricultural properties (e.g. pasture, etc.). Each class of agricultural property should suffer an economic loss in their market value due both to the significant restoration costs and their lack of native upland habitat.

IMPACTS TO AGRICULTURAL PROPERTIES

According to 1996 Geographic Information System ("GIS") data prepared by the South Florida Water Management District ("SFWMD") and presented on page 13 of the "GPICPU," Pine Island consists of the following land classifications:

- Wetlands: 13,088 acres, 52.0% of land area.
- Agriculture: 2,763 acres, 22.5% of upland land area.
- Forests: 4,853 acres, 39.5% of upland land area.
- Urban: 4,676 acres, 38.0% of upland land area.

Current estimates have increased the quantity of agricultural lands to 3,210 acres, allocated 2,355 acres to active farming (e.g. groves, row crops, etc.) and 855 acres to passive farming (e.g. pasture, non-active uses, etc.).

The density recapture model of the Lee Plan, Policy 1.4.7 and associated Land Development Code (LDC) Section 34-655, as approved by the Greater Pine Island Plan Land Use Implementation Committee (the Committee) to be sent to the BOCC for adoption, affects permitted dwelling unit densities based on the percentage of preserved or restored native upland habitats. The model is a sliding scale allowing increases in density per increases in preservation and restoration. If no land is preserved or restored, a maximum of one (1) dwelling unit per ten (10) acres is permitted. A maximum density of one (1) dwelling unit per one (1) acre would be permitted if 70 percent of the land were preserved or restored to native upland habitat.

The sliding scale does not address farmland preservation. Therefore, farmers are subject to the same requirements as non-farmers when preparing land for development. However, most farmed lands do not have native upland habitats remaining. Thus, a farmer desiring to develop his/her farm into a residential subdivision would be allowed to develop at one (1) dwelling unit per ten (10) acres without taking any preservation or restoration measures. For an increase in density, a farmer would need to restore upland areas by re-creating native habitats that had been typical of Greater Pine Island. The greater percentage of farmland restored to native habitat (or any land restored for that matter), the greater the residential density permitted.

The Committee-approved language of the LDC sets requirements for restoring native habitats. In addition, standards must be followed for plant-type species and hydrologic conditions as set forth in the Multi-Species Recovery Plan for South Florida, published by the U. S. Fish & Wildlife Service. This document is a reference source describing native habitats found on Greater Pine Island. The general requirements of the LDC are as follows:

- Correct interruptions of original water flows and assure proper hydrology appropriate for the benefit of restored native habitats.
- Prepare site including removal of non-native vegetation, roller chopping, bush hogging, prescribed burning, herbiciding, etc. as necessary.
- Plant native pine trees at 50 to 200 trees per acre, depending on species and habitat.
- Fertilize at the time of planting and weed control for at least two years following.
- Plant midstory shrubs and understory plants in groupings or clusters with an average spacing of three (3) feet on at least 50 percent of the acreage being restored.

SUMMARY OF RESTORATION COSTS

According to "Analysis & Issues Related to Greater Pine Island Community Plan Update," dated 14 June 2004 and prepared by Engelhardt, Hammer & Associates ("EHA"), the component costs of restoration was reported as follows:

- *Design and Permitting:* The initial step in the restoration process is a requirement to restore the original topography of the pre-farming condition and to create a hydrological condition that is conducive to the sustainability of the desired native habitat. This phase is reported to be the most time consuming and costly.

Most of the farms on the island have an elaborate system of ditches and dikes to accommodate the predevelopment runoff onto the property and to control saltwater intrusion from impacting the water balance of the property. Large on-site retention systems are designed to detain and treat farm runoff before it leaves the property. These water control features are all part of individual storm water management permits issued by the South Florida Water Management District ("SFWMD"). These permits include extensive requirements for ongoing monitoring and maintenance of the systems.

Restoration of the farmland to its original topography and hydrological condition would require a significant modification of the original SFWMD surface water permit, as well as major design of a habitat that met the requirements of the GPICPU restoration standards. The coordinated efforts of both an engineering consultant and an environmental consultant would be required to design and permit the habitat restoration as well as modification of the previously permitted storm water system.

Most of the existing farmlands have been laser-leveled and have been improved with elaborate underground irrigation systems. The existing irrigation systems would have to be removed, redesigned to accommodate the design of the restored habitat, and reinstalled to reflect the desired random/cluster planting pattern specified for the recreated habitat.

The original soil profile of the farmland has been altered through years of farming and plantings. Proper design of the habitat would require contouring of the soil surface to create a soil mix that would support the desired plantings. In addition, the final ground level of the restoration area would need to be surveyed and engineered to create a topography that would adequately drain all areas of the tract of land to support the desired upland habitat.

The combination of the design, permitting, and physical alteration of the site from its current condition to the desired final restoration condition is an extremely costly endeavor. Engelhardt, Hammer & Associates has indicated the costs of these tasks could range from *\$10,000 to \$30,000 per acre*. These cost estimates are based on actual costs expended for similar permitting and earthwork tasks.

- *Native Pine Trees:* As a part of the requirements for habitat restoration, native pine trees must be planted at a density between 50 and 200 trees per acre. The most common native pine on Pine Island is *slash pine*. The requirements allow them to be planted as seedlings, as opposed to planting a larger, more maturely developed tree.

For the most part, landowners can take two different approaches to completing this planting obligation: purchasing and planting with assistance from the Florida Division of Forestry, or purchasing and planting privately through a nursery and hiring planters

(or landscapers) to plant the seedlings. The cost of each approach is outlined separately below:

- *Planting with the Florida Division of Forestry:* The EHA firm contacted the FDF's Andrew's Nursery in Chiefland directly for information. The FDF will sell the pine tree seedlings to landowners and assist with planting. The FDF usually will only plant in large quantities and usually plants at least 50,000 seedlings per job. Also, they typically don't plant on less than ten acres. Planting by hand costs from \$60 to \$70 per acre and planting by machine costs \$30 to \$50 per acre (with higher mortality rates). Planting with the more accurate hand-method at the minimums necessary, would cost an average of about **\$85 per acre**. Although FDF claims reliable and fast growth, anecdotal experiences from some land owners claim much lower success rates.
- *Planting With Private Nursery and Planters:* The EHA firm contacted the *Big Tree, Inc.* nursery in Fort Myers for information. Accordingly, the cost estimate for slash pines was \$1.25 per seedling. To purchase approximately 100 seedlings, deliver and install across one acre would cost approximately \$1,000 (e.g. **\$1,000 per acre**).
- *Native Midstory Shrubs and Understory Plants:* As a part of the habitat restoration, native midstory shrubs and understory plants must be planted in groupings or clusters on at least 50 percent of the acreage being restored. While the requirements aren't specific in quantity, Spikowski Planning Associates indicated that this would likely amount to 75 plants per acre. At least five (5) plants from a list of eight (8) species must be used. The requirements permit planting of containerized plants or tubelings (of not less than 4.5 inches in depth). Unlike the native pines, the FDF currently does not have a program to assist with this obligation.

EHA contacted the native plant restoration company, *Central Florida Native Flora, Inc.*, located in San Antonio, Florida for information. According to the company, the cost to fulfill this obligation would be about **\$400 to \$500 per acre**. This would include a variety of five (5) one-gallon container plants from the list of eight species in pots about six inches in diameter and six inches deep.

- *Chemical Control:* The GPICPU requires that native plants must be fertilized to insure their survivability and the planted area must be herbicided to prevent the intrusion of weeds. The must be done for a period of at least two (2) years. The cost of the materials and the labor to complete this task would be in the range of **\$2,500 per acre per year**.
- *Annual Monitoring Reports:* EHA researched the cost of conducting the necessary field work and reporting by a qualified professional in order to gather an estimate of cost to satisfy the annual monitoring requirements. EHA contacted Rosanne Clementi of *Southeast Environmental Solutions, Inc.* located in Plant City, Florida. They estimated

that the cost would be approximately \$6,000 per acre, over three years; or **\$2,000 per acre per year**.

- **Total Restoration Cost Estimates:** In summary, EHA has provided the appraiser consultant with a total restoration cost estimate of:
 - **Design and Permitting:** \$10,000 to \$30,000 per acre.
 - **Native Pine Trees:**
 - **Planting with FDF:** \$50 to \$85 per acre.
 - **Planting with Nursery:** \$1,000 per acre.
 - **Native Midstory/Understory Shrubs:** \$400 to \$500 per acre.
 - **Chemical Control:** \$2,500 per acre per year.
 - **Annual Monitoring Reports:** \$2,000 per acre per year for three years.
 - **Total Restoration Costs:** \$20,000 to \$40,000 per acre.
- **Independent Restoration Cost Verification:** The appraiser consultant also interviewed Ray Pavelka, President of Mariner Properties Development, Inc. Mr. Pavelka played a key role in the development of the Little Pine Island Mitigation Bank (“LPIMB”) and has experience with restoration and preservation costs. Mr. Pavelka indicated that the LPIMB required minimal earthwork and dealt primarily with the removal of exotic vegetation. The cost of this 1,800 acre project was reported to be \$12.0 million, or \$6,667 per project acre.

Mr. Pavelka also indicated that Mariner Properties Development, Inc. is currently developing another mitigation bank in Lee County on Corkscrew Road. This project consists of 632 acres of former pasture area. The mitigation plan includes the removal of existing ditches, re-contouring the land, planting a native pine flatwood forest with cypress marshes, and contracting with SFWMD. Mr. Pavelka reported that the initial cost estimates for these restoration activities ranged from \$8.0 million to \$9.0 million for the 380.0 acre former farm field, or **\$21,053 per restored acre to \$23,684 per restored acre**. These restoration costs are probably higher than what would be required by the GPICPU because this is a mitigation bank, but lower than what would be required by the GPICPU because of economies of scale and the greater cost associated with Pine Island (e.g. off-setting economic issues).

ESTIMATION OF ECONOMIC IMPACT TO AGRICULTURAL PROPERTIES

As noted above, most agricultural properties have been cleared and typically have little to no native upland habitat. Thus, they will not be able to recapture allowable residential densities under the “Coastal Rural” density recapture model without significant capital outlays (summarized above) related to restoration costs. The loss of allowable residential densities and/or the alternative restoration costs will cause a reduction in the economic value of these properties. The appraiser consultant has estimated the economic impact to the agricultural properties based upon the following input assumptions:

- **Quantity of Agricultural Lands:** According to information obtained from Rick Burris, Principal Planner, Lee County Planning Division, and provided to the appraiser consultant by Spikowski Planning Associates, Greater Pine Island consists of 3,210

acres of agricultural properties. This is a 447 acre increase in agricultural properties from 1996. Of this total, 2,355 acres are classified as “active agricultural” properties (e.g. palm groves, row crops, tropical fruit groves, etc.) and 855 acres are classified as “passive agricultural” properties (e.g. pasture, etc.).

- *Market Value of “Rural” Lands on Pine Island:* The appraiser has previously provided the reader with data related to transactions of properties within the Greater Pine Island market area and designated “Rural (1 du./ac.)” Data from this market area takes into consideration the pre-existing conditions (e.g. Matlacha historic district, constrained road classification, and the 810/910 rule) that affect property use and value regardless of the GPICPU.

The sales were transacted between May 2002 and June 2004, ranged in size from 5.02 acres to 280.0 upland acres (or 365.0 gross acres), and indicated a price range from \$10,104 per acre to \$41,813 per acre. The sample indicated a mean of \$21,770 per acre, a median of \$20,000 per acre, and a mode of \$20,000 per acre. In regards to measures of dispersion, the sample indicated a standard deviation of \$7,954 per acre, a minimum of \$10,104 per acre, a maximum of \$41,813 per acre, and a range of \$31,709 per acre. For purposes of this analysis, the appraiser consultant has chosen a value unit of **\$25,000 per acre** to reflect the higher prices associated with the more recent sales and having given primary weight to Sale 2022 which transacted for \$28,500 per acre in February 2004.

- *Market Value of “DR/GR” Lands:* The appraiser has previously provided the reader with data related to transactions of properties throughout the Lee County market area and designated “Density Reduction/Groundwater Resource (1 du./10 ac.)” This data provides the statistical support for the value of properties with an allowable density of 1 du./ac., similar to that which is proposed for the “Coastal Rural” land use area (without the benefits of the density recapture model).

The sales were purchased between August 1999 and March 2004, ranged in size from 40.0 acres to 2,388.1 gross acres, and indicated a price range from \$2,659 per acre to \$7,750 per acre. The sample indicated a mean of \$4,982 per acre, and a median of \$4,469 per acre. In regards to measures of dispersion, the sample indicated a standard deviation of \$1,785 per acre, and a range of \$5,091 per acre. The DR/GR sales located along Corkscrew Road or Alico Road are in an area influenced by mining and excavation. The balance of the properties, located in north Lee County (north of SR 78–North River Road), are typically purchased for low density rural residential development or by public agencies (Lee County 2020) for conservation/preservation uses. For purposes of this analysis, the appraiser consultant has chosen a value unit of **\$7,500 per acre**. This is based upon having given greatest weight to Sale 1934 which was purchased for \$7,547 per acre in March 2004.

- *Change in Value:* The appraiser consultant has concluded a unit of value of \$25,000 per acre for those properties designated “Rural (1 du./ac.)” and located within the greater Pine Island market area, and \$7,500 per acre for those properties designated “Density Reduction/Groundwater Resource (1 du. /10 ac.)” and located throughout Lee

County. This data is representative of the allowable densities associated with the “Rural” FLUM on Pine Island “before” the GPICPU and the proposed “Coastal Rural” FLUM on Pine Island “after” the GPICPU. Thus, the change in value (without restoration or density recapture) is estimated to be a loss of **\$17,500 per acre**.

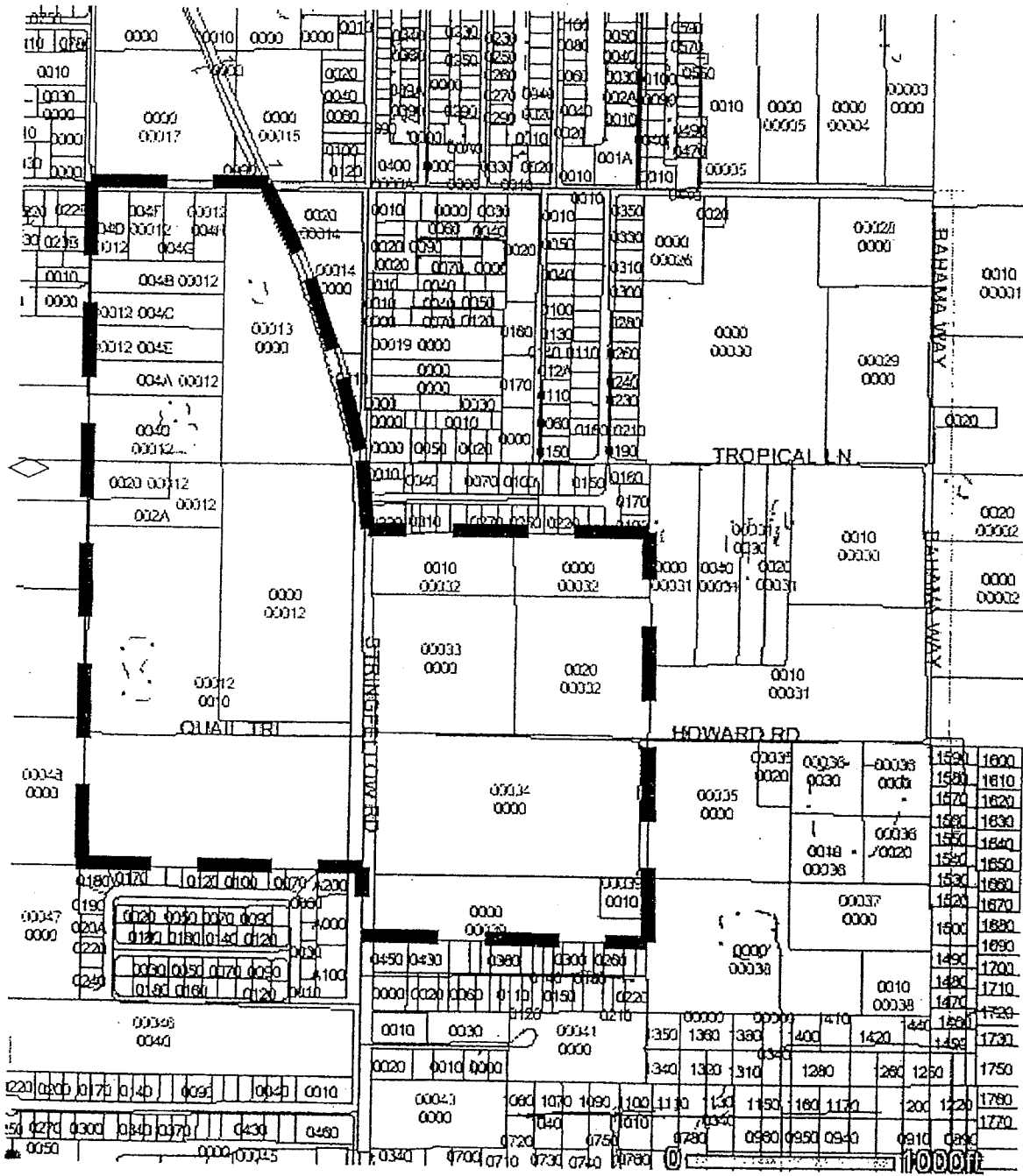
- *Impact to Active Agricultural Lands:* As noted, the Pine Island market area is estimated to contain 2,355 acres of “active agricultural” lands (e.g. palm groves, fruit tree orchards, row crops, etc.). These properties are typically characterized by extensive surface water management systems (e.g. reservoirs, ditches, swales, and related structures).
 - *Market Value Loss:* With the reduction in allowable residential density, these properties are estimated to lose \$17,500 per acre in value, for a total reduction in market value of **\$41.2 million** (2,355 acres x \$17,500 per acre).
 - *Restoration Costs:* According to the “density recapture model,” 70 percent of the property may be “restored and preserved” in order to maintain the original density of 1 du./ac. relating to the pre-GPICPU Rural FLUM designation. Therefore, 1,648.5 acres (2,355 acres x 70%) would have to be “restored” in order to maintain the density of 1 du./ac. EHA has estimated restoration costs to range from \$20,000 per acre to \$40,000 per acre. Utilizing \$30,000 per acre (from the middle of the range), the appraiser consultant has estimated the restoration costs to be **\$49.5 million**.
 - *Conclusion:* Due to the fact that the restoration costs exceed the reduction in value, the appraiser consultant does not consider the “density recapture model” to be economically feasible for active agricultural properties. Therefore, the estimated economic impact to active agricultural properties is estimated to be \$41.2 million, or rounded to **\$40.0 million**.
- *Impact to Passive Agricultural Lands:* As noted, the Pine Island market area is estimated to contain 855 acres of “passive agricultural” lands (e.g. pastures, etc.). These properties are typically cleared properties (without existing native upland habitat) with minimal surface water management water systems.
 - *Market Value Loss:* With the reduction in allowable residential density, these properties are estimated to lose \$17,500 per acre in value, for a total reduction in market value of **\$14.96 million** (855 acres x \$17,500 per acre).
 - *Restoration Costs:* According to the “density recapture model,” 70 percent of the property may be “restored and preserved” in order to maintain the original density of 1 du./ac. relating to the pre-GPICPU Rural FLUM designation. Therefore, 599 acres (855 acres x 70%) would have to be “restored” in order to maintain the density of 1 du./ac. EHA has estimated restoration costs to range from \$20,000 per acre to \$40,000 per acre. Utilizing \$20,000 per acre (from the lower end of the range), the appraiser consultant has estimated the restoration costs to be **\$12.0 million**.

- *Conclusion:* Due to the fact that the restoration costs are less than the reduction in value, the appraiser consultant considers the “density recapture model” to be economically feasible for passive agricultural properties. Therefore, the estimated economic impact to passive agricultural properties is estimated to be **\$12.0 million.**
- *Impact to “Outlying Suburban” Lands:* In addition to the agricultural properties discussed above, the GPICPU proposes to change the FLUM designation on 157 acres of lands currently designated “Outlying Suburban (3 du./ac.)” to “Coastal Rural (1 du./10 ac.)” This 157 acres of agricultural and residential land is located between Bokeelia and September Estates in 31-43-22, bounded by Quail Trail on the west, Barrancas Street on the north, Stringfellow Road on the east, Unit A of Rapid #1 subdivision (Cobb Road) on the north, the quarter section line of Section 31 on the east, and Pinehurst Acres and September Estates on the south (see attached map). This land area will be reclassified as “Coastal Rural,” from its current “Outlying Suburban” future land use designation.
 - *Market Value Loss:* The restoration process within the Outlying Suburban area will restore the allowable residential density to 1 du./ac. as opposed to the 3 du./ac. which were initially allowed within the Outlying Suburban area. Thus, an allowable density of 2 du./ac. will be lost regardless of the “density recapture model” and restoration alternatives. The loss in allowable density is estimated to result in a loss of market value of \$40,000/ac. (\$65,000/ac. - \$25,000/ac.), or \$6.28 million (157 ac. x \$40,000/ac.). An additional loss in value will be incurred in sustaining the 1 du./ac. density, or an additional \$2.75 million.
 - *Restoration Costs:* Restoration of active farm field areas (146.4 Acres* x 0.70 = 102.5 Acres) would be necessary in order to regain the allowable density of 1 du./ac. Applying EHA’s restoration cost estimate of \$30,000 per acre results in a restoration cost estimate of \$3.075 million. This compares to a value change of \$17,500 per acre (without restoration), or \$2.75 million if no restoration of native upland habitat occurs. Thus, the restoration program is not considered feasible.

*Excludes 10.6 acres of native upland habitat.
 - *Conclusion:* The restoration process is not considered economically feasible because the restoration costs exceed the loss in value. Therefore, the loss in value estimate (the lesser of the two estimates) is recognized as the \$6.28 million due to a reduction in allowable density from 3 du./ac. to 1 du./ac., and an additional loss in value of \$2.75 million due to a reduction in density from 1 du./ac. to 1 du./10 ac. Therefore, the total loss in market value to the 157 acre Outlying Suburban area is \$ 9.03 million, or rounded to **\$9.0 million.**

MAP 2, CPA 2001-18

SHOWING 157 ACRES BEING CHANGED FROM "OUTLYING SUBURBAN"
TO "COASTAL RURAL" IN S.T.R. 31-43-22 IN BOKEELIA, FLORIDA



Area Map

SUMMARY AND CONCLUSION OF THE IMPACT ESTIMATE

In summary, the appraiser consultant has estimated that the GPICPU will not adversely affect properties with sufficient native upland habitat to recapture lost allowable residential densities through the application of the “density recapture model” and “clustered development.” However, those properties without existing native upland habitat (e.g. active and passive farm fields) will have to comply with a habitat restoration program on 70 percent of their site in order to retain the pre-existing density of 1du./ac. EHA has estimated the cost of restoration to range from \$20,000 per acre to \$40,000 per acre. The appraiser consultant considered economic feasibility of the restoration program in the development of the economic impact estimate.

In conclusion, the economic impacts that are expected to occur to the Pine Island market area if the 09 January 2003 changes to the Land Plan are made final as presently written, and are implemented through the regulations formulated by the GPICA, are summarized as follows:

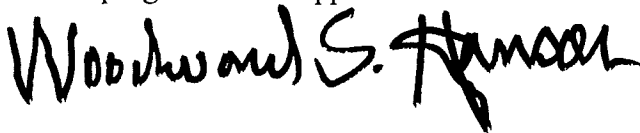
- Forested Properties With Adequate Native Upland Habitat: No Impact.
- Agricultural Properties Without Native Upland Habitat:
 - Active Agriculture: Loss of \$40.0 million in market value.
 - Passive Agriculture: Loss of \$12.0 million in market value.
- Outlying Suburban Area (157 Acres): Loss of \$9.0 million in market value.

Therefore, it is the appraiser consultant’s opinion the total impact resulting from the GPICPU is \$61.0 million, or rounded to say \$60.0 million.

CERTIFICATION

I certify that, to the best of my knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, conclusions and recommendations.
3. I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest with respect to the parties involved.
4. I have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.
5. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
6. My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
7. The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics & Standards of Professional Appraisal Practice of the Appraisal Institute, which include the Uniform Standards of Professional Appraisal Practice.
8. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
9. Woodward S. Hanson, MAI, CRE, CCIM has made a personal inspection of the property that is the subject of this report on January 20, 2004, April 1, 2004, July 7, 2004, and July 24, 2004.
10. Significant real property appraisal or appraisal consulting assistance was provided by Ethel D. Hammer, President, Engelhardt, Hammer & Associates, 5444 Bay Center Drive, Suite 122, Tampa, FL 33609.
11. As of the date of this report, Woodward S. Hanson has completed the continuing education program of the Appraisal Institute.



Woodward S. Hanson, MAI, CRE, CCIM
St. Cert. Gen. REA RZ 1003

ASSUMPTIONS AND LIMITING CONDITIONS

In conducting this consulting report, I have assumed, except as otherwise noted in my report, as follows:

1. The title is marketable and free and clear of all liens, encumbrances, encroachments, easements and restrictions. The property is under responsible ownership and competent management and is available for its highest and best use.
2. There are no existing judgments or pending or threatened litigation that could affect the value of the property unless otherwise set forth.
3. There are no hidden or undisclosed conditions of the land or of the improvements that would render the property more or less valuable. Furthermore, there is no asbestos in the property.
4. The revenue stamps placed on any deed referenced herein to indicate the sale price are believed in correct relation to the actual dollar amount of the transaction.
5. The property is in compliance with all applicable building, environmental, zoning, and other federal, state and local laws, regulations and codes where applicable.

My consulting report is subject to the following limiting conditions, except as otherwise noted in my report.

1. An consulting report is inherently subjective and represents an opinion as to the value of the property appraised.
2. The conclusions stated in my consulting report apply only as of the effective date of the consulting report, and no representation is made as to the affect of subsequent events.
3. No changes in any federal, state or local laws, regulations or codes (including, without limitation, the Internal Revenue Code) are anticipated.
4. I reserve the right to revise or rescind any of the value opinions based upon any subsequent, environmental impact studies. If any environmental impact statement is required by law, the consulting report assumes that such statement will be favorable and will be approved by the appropriate regulatory bodies.
5. I am not required to give testimony or to be in attendance in court or any government or other hearing with reference to the property without written contractual arrangements having been made relative to such additional employment.

6. I have made no survey of the property and assume no responsibility in connection with such matters. Any sketch or survey of the property included in this report is for illustrative purposes only and should not be considered to be scaled accurately for size. The consulting report covers the property as described in this report, and the areas and dimensions set forth are assumed to be correct.
7. No opinion is expressed as to the value of subsurface oil, gas or mineral rights, if any, and I have assumed that the property is not subject to surface entry for the exploration or removal of such materials, unless otherwise noted in my consulting report.
8. I accept no responsibility for considerations requiring expertise in other fields. Such considerations include, but are not limited to, legal descriptions and other legal matters, geologic considerations, such as soils and seismic stability, and civil, mechanical, electrical, structural and other engineering and environmental matters.
9. The distribution of the total valuation in this report between land and improvements applies only under the reported highest and best use of the property. The allocations of value for land and improvements must not be used in conjunction with any other consulting report and are invalid if so used. This consulting report shall be considered only in its entirety. No part of this consulting report shall be utilized separately or out of context.
10. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraisers, or any reference to the Appraisal Institute) shall be disseminated through advertising media, public relations media, news media or any other means of communication (including without limitation prospectuses, private offering memoranda and other offering material provided to prospective investors) without the prior written consent of the appraisers.
11. Information, estimates and opinions contained in this report, obtained from sources outside of the office of the undersigned, are assumed to be reliable and have not been independently verified.
12. Any income and expense estimates contained in this consulting report are used only for the purpose of estimating value and do not constitute predictions of future operating results.
13. No assurance is provided that the methodology and/or results of the consulting report will not be successfully challenged by the Internal Revenue Service. In particular, the methodology for appraising certain types of properties, including without limitation, government subsidized housing, which has been the subject of debate.
14. If the property is subject to one or more leases, any estimate of residual value contained in the consulting report may be particularly affected by significant changes in the condition of the economy, of the real estate industry, or of the appraised property at the time these leases expire or otherwise terminate.

15. No consideration has been given to personal property located on the premises or to the cost of moving or relocating such personal property; only the real property has been considered.
16. The current purchasing power of the dollar is the basis for the value stated in my consulting report; I have assumed that no extreme fluctuations in economic cycles will occur.
17. The value found herein is subject to these and to any other assumptions or conditions set forth in the body of this report but which may have been omitted from this list of Assumptions and Limiting Conditions.
18. The analyses contained in this report necessarily incorporate numerous estimates and assumptions regarding property performance, general and local business and economic conditions, the absence of material changes in the competitive environment and other matters. Some estimates or assumptions, however, inevitably will not materialize, and unanticipated events and circumstances may occur; therefore, actual results achieved during the period covered by my analysis will vary from my estimates, and the variations may be material.
19. This consulting report has been prepared for the exclusive benefit of Timothy Jones, Esq., Chief Assistant County Attorney, Lee County Board of County Commissioners, Post Office Box 398, Fort Myers, FL 33902-0398. It may not be used or relied upon by any other party. All parties who use or rely upon any information in this report without my written consent, do so at their own risk.
20. No studies have been provided to us indicating the presence or absence of hazardous materials on the site or in the improvements, and my valuation is predicated upon the property being free and clear of any environment hazards.
21. I have not been provided with an estimate as to the presence and/or location of wetland vegetation areas. Wetlands generally include swamps, marshes, bogs, and similar areas. I am not qualified to detect such areas. The presence of flood plain areas and/or wetlands may affect the value of the property, and the value conclusion is predicated on the assumption that wetlands are as identified within the report.

ADDENDUM A
QUALIFICATIONS OF APPRAISER(S)

**PROFESSIONAL QUALIFICATIONS OF
WOODWARD S. HANSON, MAI, CRE, CCIM**

<p>EXPERIENCE:</p>	<p>President of <i>Hanson Real Estate Advisors, Inc.</i> Independent fee appraiser since 1979. Practice is specialized in eminent domain and real estate related civil litigation.</p>
<p>PROFESSIONAL ACTIVITIES:</p>	<p>MAI Designation, Appraisal Institute, Certificate No. 7534, 1987 CRE Designation, The Counselors of Real Estate of the NAR CCIM Designation, Commercial Investment Real Estate Institute of the NAR State-Certified General Real Estate Appraiser, License No. RZ 0001003 Realtor-Associate, National Association of Realtors/Fort Myers Association of Realtors, Inc. Broker License - Florida Real Estate Board, License No. 0174419 2000 President - Appraisal Institute 1999 President Elect - Appraisal Institute 1998 Vice President - Appraisal Institute 1997 Chair, Government Relations - Appraisal Institute 1996 Chair, Appraisal Standards Council - Appraisal Institute 1996-2000 Executive Committee/Board of Directors - Appraisal Institute Past President (1994) - West Coast Florida Chapter of the Appraisal Institute</p>
<p>EDUCATION:</p>	<p>Bachelor of Science in Business Administration with Honors, University of Florida (1976) Bachelor of Design-Architecture with Honors, University of Florida (1979) Successfully completed numerous real estate related courses and seminars sponsored by the Appraisal Institute, accredited universities and others.</p>
<p>PUBLICATIONS AND PRESENTATIONS:</p>	<p><i>The Income Capitalization, Cost & Sales Comparison Approach In Theory</i>, ALI-ABA, Eminent Domain and Land Valuation Litigation, January 2002 <i>The Value of Networks</i>, Valuation Insights & Perspectives, Spring 2000 <i>Recognizing the Future: Real Estate and the Networked Economy</i>, The Counselors of Real Estate, Real Estate Issues, 2000 <i>Mega-Trends in Real Estate and Foreseeable Effects on Eminent Domain Practice</i>, ALI-ABA, Eminent Domain and Land Valuation Litigation, January 2000 <i>The Internet: The New Power Tool in Eminent Domain</i>, ALI-ABA, Eminent Domain and Land Valuation Litigation, January 2000 <i>Regulatory Takings</i>, Florida Chamber of Commerce, Growth Management, February 1999 <i>Severance Damages</i>, ALI-ABA, Eminent Domain and Land Valuation Litigation, January 1999 <i>What to Expect from the U.S. Real Estate Market in 1999</i>, Pan American Valuation Conference, Cusco, Peru, October 1998 Public Interest Value & Noneconomic Highest & Best Use: The Appraisal Institute's Position, Valuation Insights & Perspectives, Spring 1996 Real Estate Consulting in Compliance With USPAP: What Appraisers Need to Know, Valuation Insights & Perspectives, Summer 1996</p>
<p>ADDITIONAL INFORMATION:</p>	<p>Qualified as expert in Chancery Court of Delaware, Federal Tax Court, Federal Court, and various State Courts of Florida Testified Before Congress Concerning Bureau of Land Management Appraisal and Land Exchange Policies</p>

ADDENDUM B

PHOTOGRAPHS OF

ACTIVE AGRICULTURAL AREAS

PHOTOGRAPHS OF ACTIVE AGRICULTURAL AREAS

Taken By: Woodward S. Hanson, MAI, CRE, CCIM
2233 Second Street
Fort Myers, FL 33901-3051

Taken On: April 1, 2004

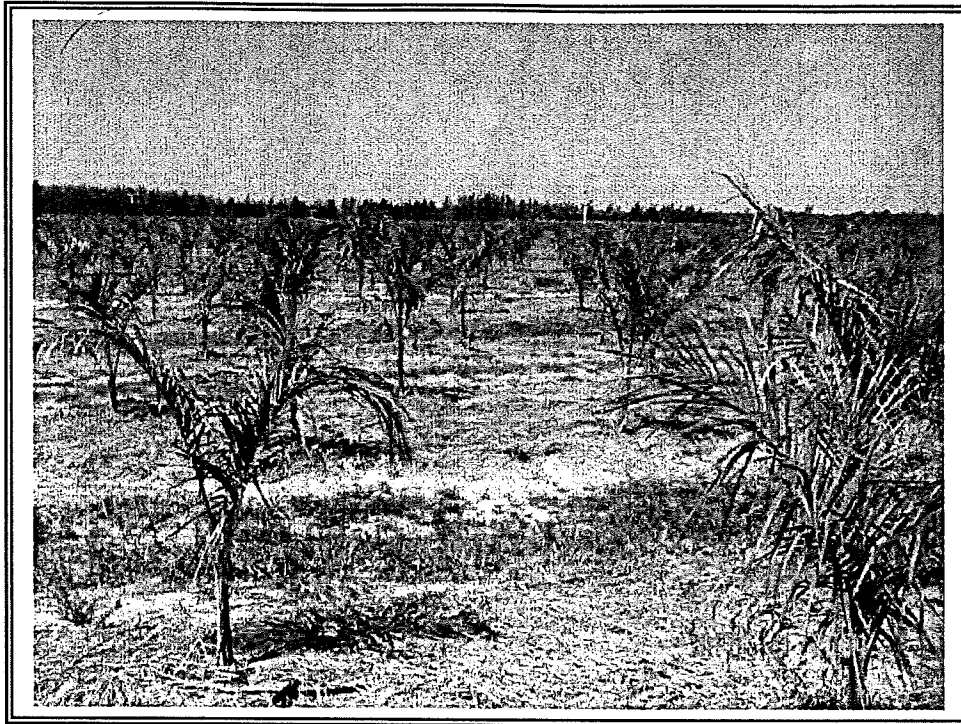


Photo No. 1: Photographic view of recently planted palm trees.

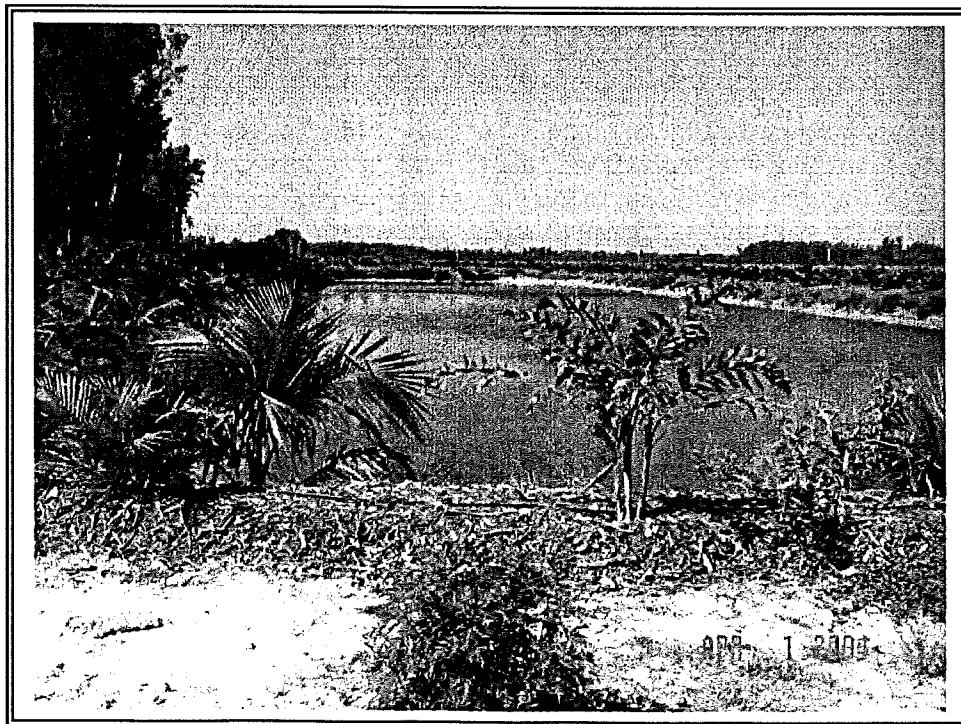


Photo No. 2: Photograph of water detention area.



Photo No. 3: Photograph of canals within surface water management system.

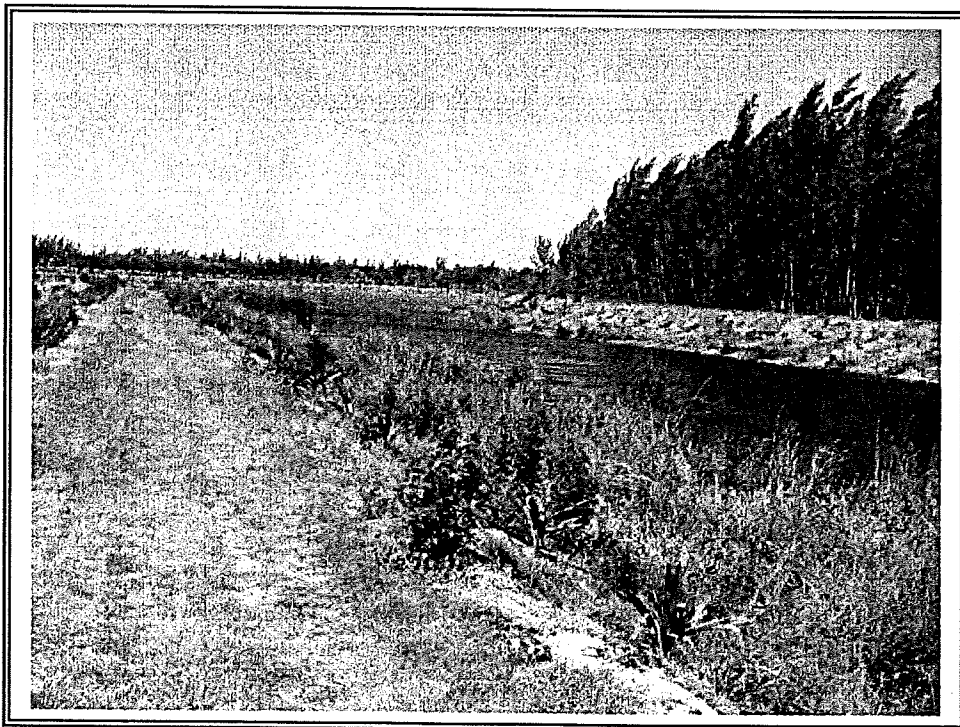


Photo No. 4: Photograph of canals within surface water management system.

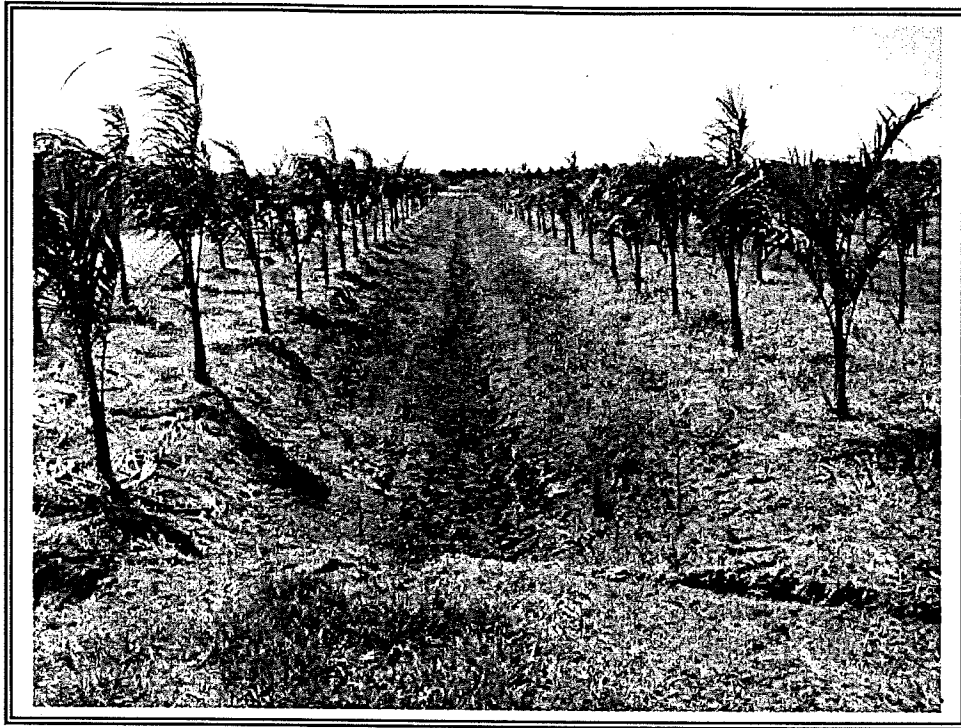


Photo No. 5: Recently planted palms trees. Note the bedded areas and the drainage swales.



Photo No. 6: Photograph of throw-off pump.

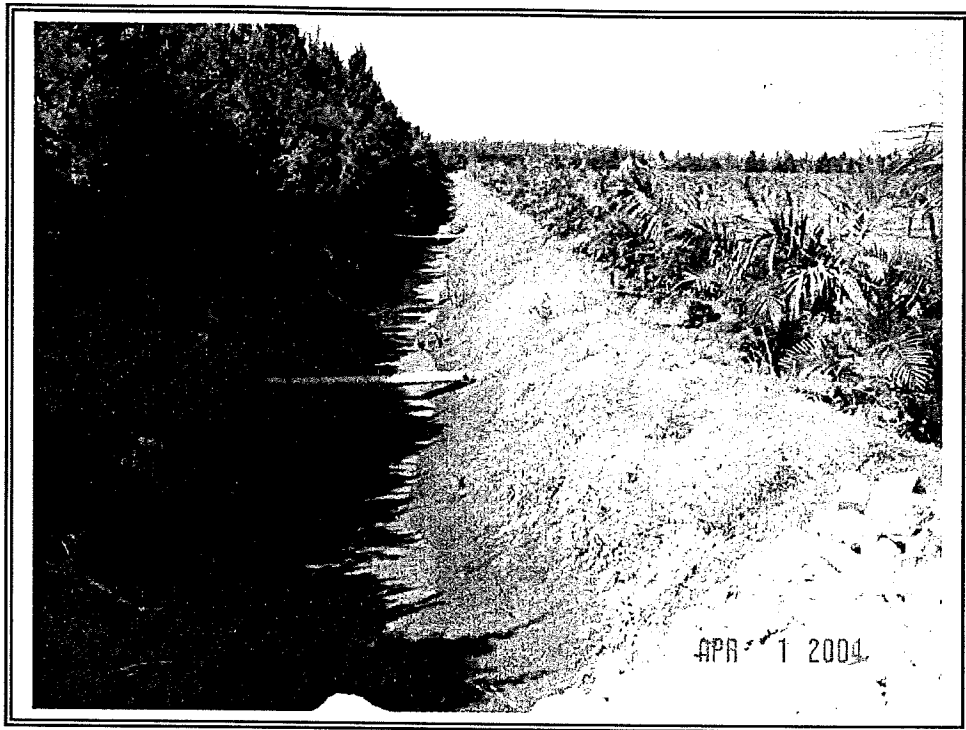


Photo No. 7: Photograph of perimeter ditch at active palm grove facility.



Photo No. 8: Photograph of recently planted palm grove.

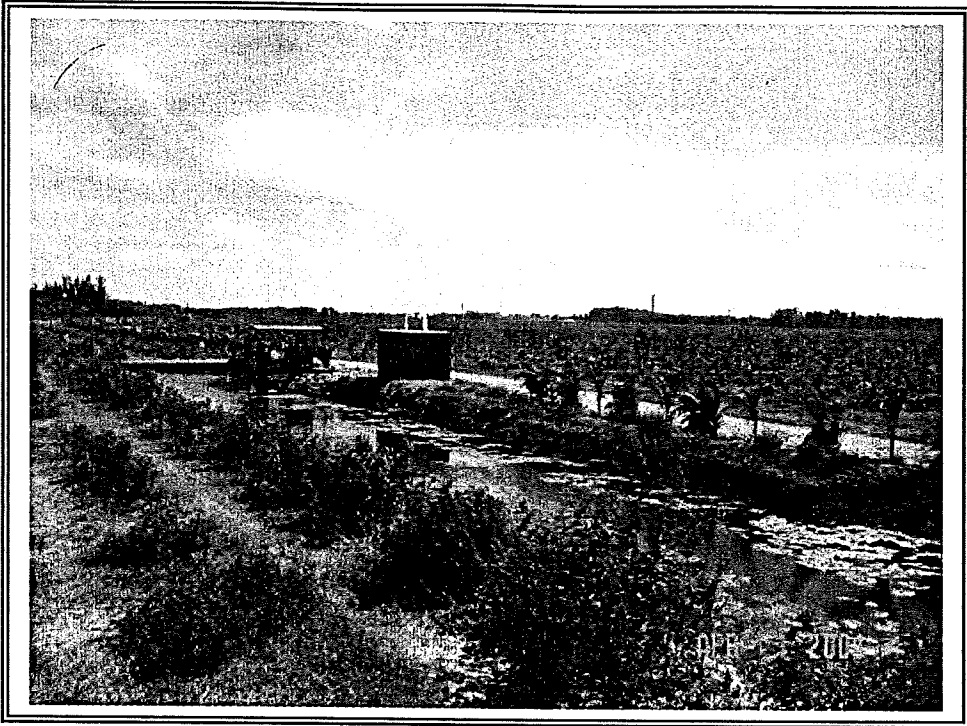


Photo No. 9: Photograph of palm grove field.

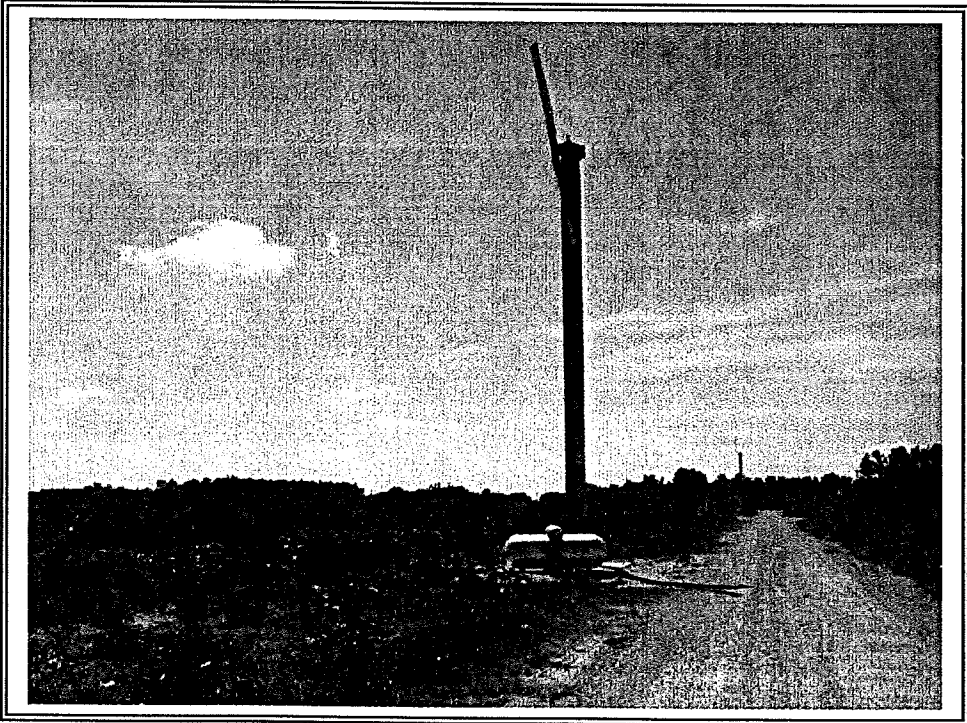


Photo No. 10: Photograph of internal road and cold weather protection fan.

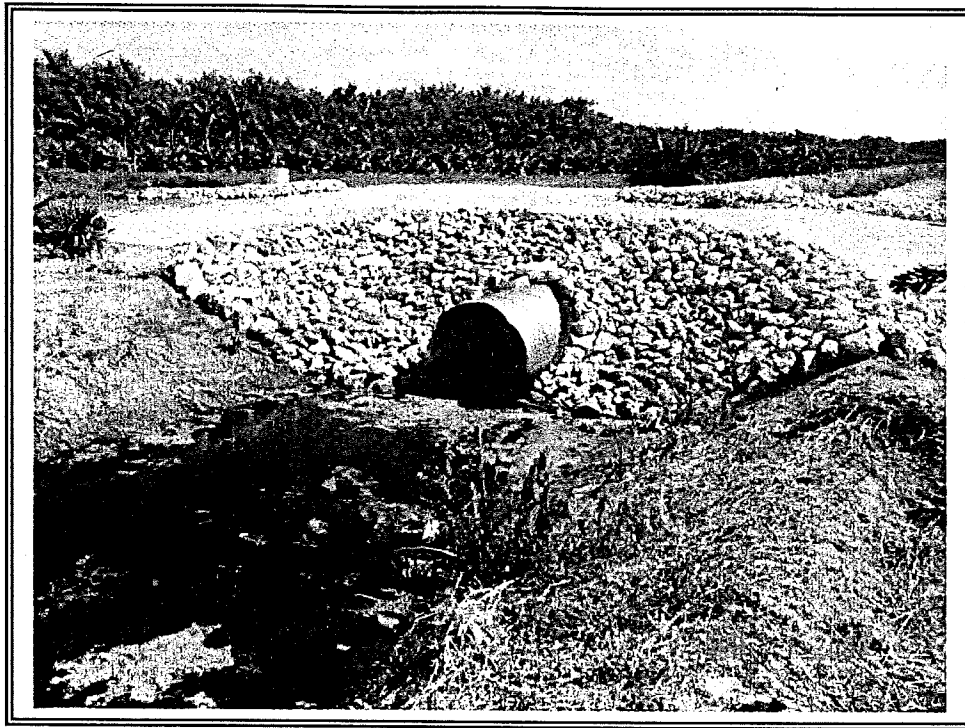


Photo No. 11: Photograph of corrugated metal pipe and armor wall supporting the internal farm road.

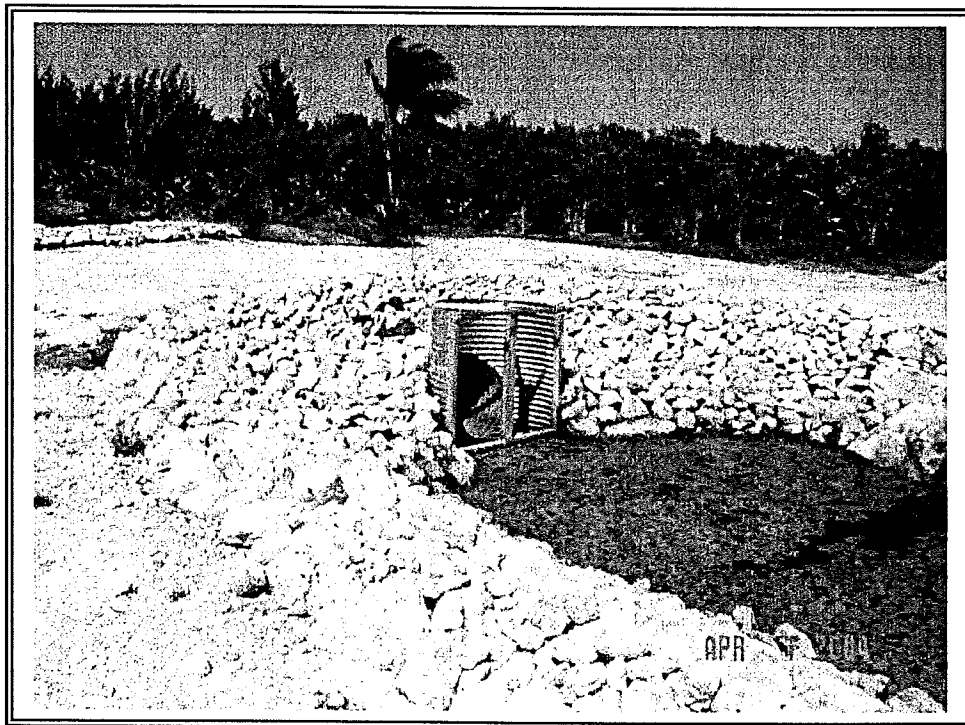


Photo No. 12: Photograph of internal road crossing and drainage control structure.

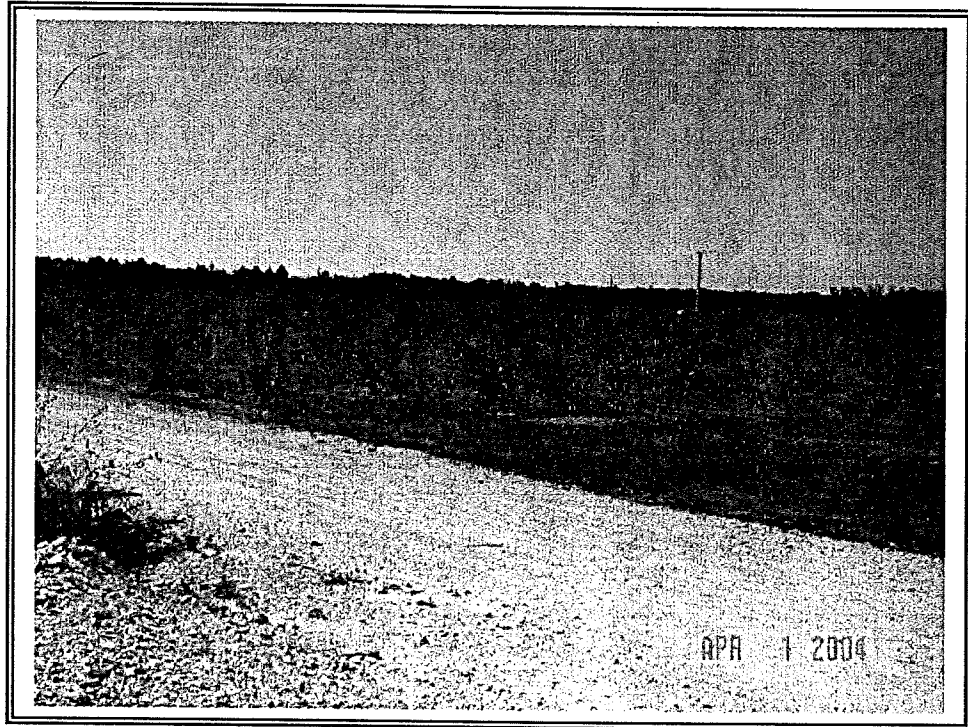


Photo No. 13: Photograph of internal farm road and recently planted palm grove.

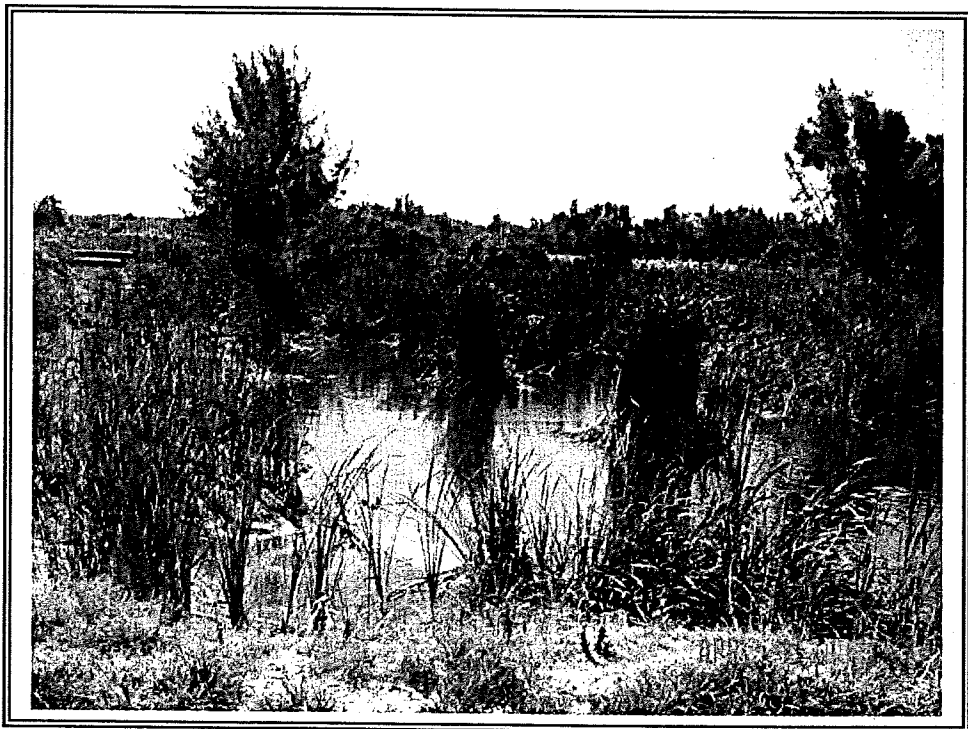


Photo No. 14: Photograph of reservoir area.

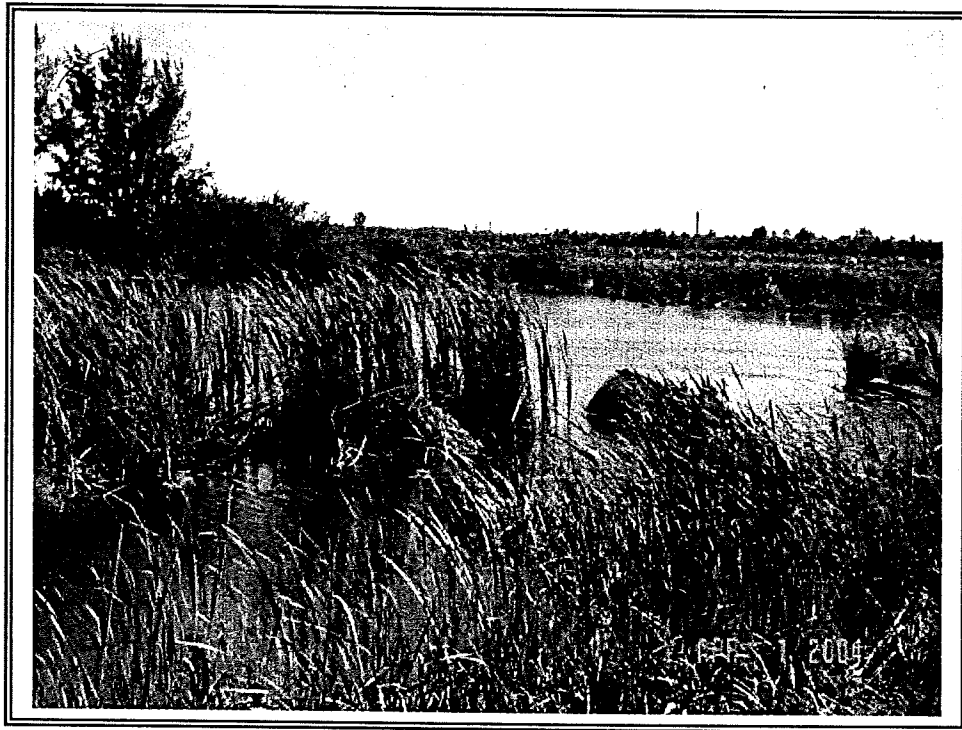


Photo No. 15: Photograph of reservoir area.

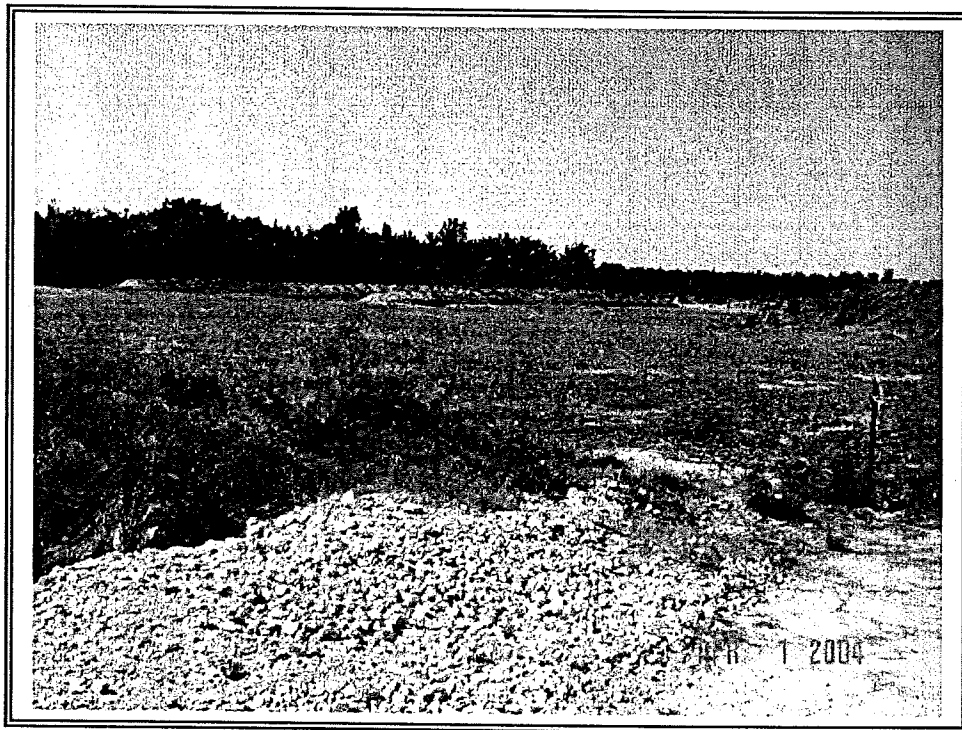


Photo No. 16: Photograph of cleared farm field area.

ADDENDUM C

LEE COUNTY ORDINANCE NO. 03-03

(GREATER PINE ISLAND COMMUNITY PLAN)

(CPA2001-18)

LEE COUNTY ORDINANCE NO. 03-03
(Greater Pine Island Community Plan)
(CPA2001-18)

AN ORDINANCE AMENDING THE LEE COUNTY COMPREHENSIVE PLAN, COMMONLY KNOWN AS THE "LEE PLAN," ADOPTED BY ORDINANCE NO. 89-02, AS AMENDED, SO AS TO ADOPT AMENDMENT CPA2001-18 (PERTAINING TO THE GREATER PINE ISLAND COMMUNITY PLAN) APPROVED DURING THE COUNTY'S 2001/2002 REGULAR COMPREHENSIVE PLAN AMENDMENT CYCLE; PROVIDING FOR AMENDMENTS TO ADOPTED TEXT AND FUTURE LAND USE MAP; PURPOSE AND SHORT TITLE; LEGAL EFFECT OF "THE LEE PLAN"; GEOGRAPHICAL APPLICABILITY; SEVERABILITY, CODIFICATION, SCRIVENER'S ERRORS, AND AN EFFECTIVE DATE.

WHEREAS, the Lee County Comprehensive Plan ("Lee Plan") Policy 2.4.1 and Chapter XIII, provides for adoption of amendments to the Plan in compliance with State statutes and in accordance with administrative procedures adopted by the Board of County Commissioners ("Board"); and,

WHEREAS, the Board, in accordance with Section 163.3181, Florida Statutes, and Lee County Administrative Code AC-13-6 provide an opportunity for private individuals to participate in the plan amendment public hearing process; and,

WHEREAS, the Lee County Local Planning Agency ("LPA") held public hearings pursuant to Florida Statutes and Lee County Administrative Code on March 25, and April 22, 2002; and,

WHEREAS, the Board held a public hearing for the transmittal of the proposed amendment on September 5, 2002. At that hearing, the Board approved a motion to send, and did later send, proposed amendment CPA2001-18 pertaining to the Great Pine Island Community Planning Effort to the Florida Department of Community Affairs ("DCA") for review and comment; and,

WHEREAS, at the September 5, 2002 meeting, the Board announced its intention to hold a public hearing after the receipt of DCA's written comments commonly referred to as the "ORC Report." DCA issued their ORC Report on November 22, 2002; and,

WHEREAS, at a public hearing on January 9, 2003, the Board moved to adopt the proposed amendment to the Lee Plan adopting the Greater Pine Island Community Plan more particularly set forth herein.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA, THAT:

SECTION ONE: PURPOSE, INTENT AND SHORT TITLE

The Board of County Commissioners of Lee County, Florida, in compliance with Chapter 163, Part II, Florida Statutes, and with Lee County Administrative Code AC-13-6, conducted public hearings to review proposed amendments to the Lee Plan. The purpose of this ordinance is to adopt the amendments to the Lee Plan discussed at those meetings and approved by a majority of the Board of County Commissioners. The short title and proper reference for the Lee County Comprehensive Land Use Plan, as hereby amended, will continue to be the "Lee Plan." **This amending ordinance may be referred to as the "2001/2002 Regular Comprehensive Plan Amendment Cycle CPA2001-18 Greater Pine Island Community Plan Ordinance."**

SECTION TWO: ADOPTION OF LEE COUNTY'S 2000/2001 REGULAR COMPREHENSIVE PLAN AMENDMENT CYCLE

The Lee County Board of County Commissioners hereby amends the existing Lee Plan, adopted by Ordinance Number 89-02, as amended, by adopting an amendment, as revised by the Board of County Commissioners on January 9, 2003, known as CPA2001-18. CPA2001-18 amends the Plan to incorporate the recommendations of the Greater

Pine Island Community Planning effort including changes to Goal 14 and subsequent Objective and Policies specific to the Greater Pine Island Community, changes to Policy 1.4.7 and amendments to the Future Land Use Map. The specific amendments adopted are:

A. The establishment of a new "Coastal Rural" future land use category as described in new Policy 1.4.7 on Exhibit 1.

B. Reclassify all land on Pine Island now designated as "Rural" to "Coastal Rural" as shown on Map 1. (Exhibit 2 of this ordinance)

C. Amend the Future Land Use Map series to reclassify 157 acres of agricultural land between Bokeelia and September Estates from "Outlying Suburban" to "Coastal Rural" as shown on Map 2. (Exhibit 3 of this ordinance)

D. Replace the existing vision statement for Pine Island in Chapter I of the Lee Plan with the new vision statement as shown on Exhibit 1.

E. Modify Policies 14.1.5, 14.1.7, 14.2.2, 14.2.3, and 14.3.3 as shown on Exhibit 1.

F. Add new Policies 14.1.8, 14.2.4, 14.3.5, 14.4.3, 14.4.4, 14.4.5, and 14.5.4 as shown on Exhibit 1.

The corresponding Staff Reports and Analysis, along with all attachments for this amendment including the Greater Pine Island Community Plan Update dated September 30, 2001 are adopted as "Support Documentation" for the Lee Plan.

SECTION THREE: LEGAL EFFECT OF THE "LEE PLAN"

No public or private development will be permitted except in conformity with the Lee Plan. All land development regulations and land development orders must be consistent with the Lee Plan as amended.

SECTION FOUR: GEOGRAPHIC APPLICABILITY

The Lee Plan is applicable throughout the unincorporated area of Lee County, Florida, except in those unincorporated areas included in joint or interlocal agreements with other local governments that specifically provide otherwise.

SECTION FIVE: SEVERABILITY

The provisions of this ordinance are severable and it is the intention of the Board of County Commissioners of Lee County, Florida, to confer the whole or any part of the powers herein provided. If any of the provisions of this ordinance are held unconstitutional by a court of competent jurisdiction, the decision of that court will not affect or impair the remaining provisions of this ordinance. It is hereby declared to be the legislative intent of the Board that this ordinance would have been adopted had the unconstitutional provisions not been included therein.

SECTION SIX: INCLUSION IN CODE, CODIFICATION, SCRIVENERS' ERROR

It is the intention of the Board of County Commissioners that the provisions of this ordinance will become and be made a part of the Lee County Code. Sections of this ordinance may be renumbered or relettered and the word "ordinance" may be changed to "section," "article," or other appropriate word or phrase in order to accomplish this intention; and regardless of whether inclusion in the code is accomplished, sections of this ordinance may be renumbered or relettered. The correction of typographical errors that do not affect the intent, may be authorized by the County Manager, or his or her designee, without need of public hearing, by filing a corrected or recodified copy with the Clerk of the Circuit Court.

SECTION SEVEN: EFFECTIVE DATE

The plan amendments adopted herein are not effective until a final order is issued by the DCA or Administrative Commission finding the amendment in compliance with

Section 163.3184, Florida Statutes, whichever occurs earlier. No development orders, development permits, or land uses dependent on this amendment may be issued or commence before the amendment has become effective. If a final order of noncompliance is issued by the Administration Commission, this amendment may nevertheless be made effective by adoption of a resolution affirming its effective status. A copy of such resolution will be sent to the DCA, Bureau of Local Planning, 2555 Shumard Oak Boulevard, Tallahassee, Florida 32399-2100.

THE FOREGOING ORDINANCE was offered by Commissioner Janes, who moved its adoption. The motion was seconded by Commissioner St. Cerny, and, when put to a vote, the vote was as follows:

Robert P. Janes	Aye
Douglas St. Cerny	Aye
Ray Judah	Aye
Andrew Coy	Aye
John Albion	Aye

DONE AND ADOPTED this 9th day of January 2003.

ATTEST:
CHARLIE GREEN, CLERK

LEE COUNTY
BOARD OF COUNTY COMMISSIONERS

BY: Michelle S. Cooper
Deputy Clerk

BY: Ray Judah
Chairman

DATE: 1/9/03

Approved as to form by:

Donna Marie Collins
Donna Marie Collins
County Attorney's Office

Exhibits:

1. Text amendments to the Lee County Comprehensive Land Use Plan.
2. Map 1 depicting the Coastal Rural Future Land Use Category on Pine Island.
3. Map 2 depicting 157 acres changed from the Outlying Suburban Future Land Use Category to the Coastal Rural Future Land Use Category.

B. BOARD OF COUNTY COMMISSIONER'S TRANSMITTAL LANGUAGE:

VISION STATEMENT:

~~Pine Island - This community includes the major islands of Pine Island, Little Pine Island, and Matlacha, the surrounding smaller islands, and the previously mentioned enclaves in the City of Cape Coral. This community has an overall identity of Pine Island; however, there are four sub-community centers within the overall community. The four areas within the Pine Island Community are: Bokeelia at the northern tip, St. James City at the southern tip of the island, and Matlacha which is a small island between the mainland and Pine Island. The Pine Island community is similar to the other island communities in that the residents leave the islands to satisfy many of their commercial needs. However, unlike the other island communities, Pine Island does not have a substantial amount of tourist oriented commercial. Since the Pine Island community does not contain the gulf front beaches the other island communities have, this is not expected to change during the life of the plan. This community will add a small amount of new commercial by 2020 to meet the daily needs of residents; however, Pine Island community residents will still satisfy most of their commercial needs outside of their community. The population of this community will also grow from 8,400 permanent residents in 1996 to approximately 9,700 residents in 2020 and a total seasonal population of nearly 15,000. Pine Island is also different from the other island communities in that it has a much higher percentage of non-seasonal residents.~~

Pine Island - This community includes Greater Pine Island as described under Goal 14 along with surrounding smaller islands and some unincorporated enclaves near Cape Coral. Its future, as seen by Pine Islanders, will be a matter of maintaining an equilibrium between modest growth on the one hand and a fragile ecology on the other. Pine Island will continue to be a haven between urban sprawl approaching from the mainland and the wealth of the outer islands; a quiet place of family businesses, school children, and retirees enjoying the bounties of nature; a place devoid of high-rises, strip malls, and gated communities. Traffic constraints caused by the narrow road link to the mainland will limit future development, allowing the islands to evacuate from storms and protecting natural lands from unsustainable development. Wildlife and native vegetation will be protected; loss of wildlife habitat will be reversed; sidewalks and bike paths will connect neighborhoods for young and old alike. Architectural standards for commercial buildings will encourage "Old Florida" styles, and historic buildings will be treasured. Pine Island will continue to be a place where people and nature exist in harmony, a place not very different from what it is today, an island as state-of-mind as much as a physical entity, its best features preserved and enhanced. Pine Islanders are historically vigilant about protecting their community and will work to ensure that their plans are carried out.

POLICY 14.1.5: New development, including "planned development" rezoning approvals and, new subdivisions, and agriculture, that adjoining state-designated aquatic preserves and associated wetlands and natural tributaries must provide preserve or create a 50-foot-wide native vegetated buffer area between the development and the waterbody or associated wetlands. This requirement will not apply to existing subdivided lots. For agriculture, this requirement:

- : will be implemented through the notice-of-clearing process in chapter 14 of the land development code;

- will include a requirement to use this area as a riparian forest buffer with an adjoining filter strip wherever farmland abuts wetlands; and
- if native vegetation does not currently exist, native tree cover will be established within three years of issuance of the notice of clearing.

POLICY 14.1.7: The county will continue to investigate the need for central sewer service for Bokeelia, St. James City, and Pine Island Center. This will include, for any area having a strong need for such service, an analysis of available facility sites, alternative types of service, and financial feasibility. Lee County will design a program within one year to assess the condition of septic tank drainfields along saltwater canals in St. James City, Bokeelia, and Flamingo Bay if grant funding can be obtained and if property owners are willing to cooperate with the study. This program would analyze whether current soil conditions or the density, age, or condition of drainfields are likely to be degrading tidal water in the canals. If serious degradation is taking place, Lee County will assess the feasibility of various corrective measures.

POLICY 14.1.8: The county reclassified all uplands on Pine Island previously designated as Rural to a new Coastal Rural designation on the Future Land Use Map. The purposes of this redesignation was to provide a clearer separation between rural and urban uses on Pine Island, to discourage the unnecessary destruction of native upland habitats, and to avoid placing more dwelling units on Pine Island that can be served by the limited road capacity to the mainland. The Coastal Rural designation is designed to provide land owners with maximum flexibility while accomplishing these public purposes.

POLICY 14.2.2: In order to recognize and give priority to the property rights previously granted by Lee County for about 6,800~~675~~ additional dwelling units, the county will consider for adoption keep in force effective development regulations which address growth on Pine Island and which implement measures to gradually limit future development approvals. The effect of these regulations would be to appropriately will reduce certain types of approvals at established thresholds prior to the adopted level-of-service standard capacity of Pine Island Road being reached, measured as follows at the permanent count station on Little Pine Island at the western edge of Matlacha:

- When traffic on Pine Island Road between Burnt Store Road and Stringfellow Boulevard reaches 810 peak hour, annual average two-way trips, the regulations will provide restrictions on will restrict further rezonings which would increase traffic on Pine Island Road through Matlacha. These regulations shall provide reasonable exceptions for minor rezonings on infill properties surrounded by development at similar intensities and those with inconsequential or positive effects on peak traffic flows through Matlacha, and may give preference to rezonings for small enterprises that promote the nature and heritage of Greater Pine Island.
- When traffic on Pine Island Road between Burnt Store Road and Stringfellow boulevard reaches 910 peak hour, annual average two-way trips, the regulations will provide restrictions on the further issuance of residential development orders (pursuant to chapter 10 of the Land

Development Code the Development Standards Ordinance), or other measures to maintain the adopted level of service, until improvements can be made in accordance with this plan. The effect of these restrictions on residential densities must not be more severe than restricting densities to one-third of the maximum density otherwise allowed on that property.

The 810 and 910 thresholds were based on 80% and 90% of level-of-service "D" capacity calculated using the 1965 Highway Capacity Manual, as documented in the 2001 Greater Pine Island Community Plan Update. These development regulations may provide exceptions for legitimate ongoing developments to protect previously approved densities for final phases that have a Chapter 177 plat or site-plan approval under Ordinance 86-36.

POLICY 14.2.3: In addition to the enforcing the restrictions in the Policy 14.2.2, the county will take whatever additional actions are feasible to increase the capacity of Pine Island Road. The following measures will be evaluated:

- The construction of left-turn lanes at intersections with local roads in Matlacha, or a continuous third lane.
- Improvements to Burnt Store Road and Pine Island Road to the east of Burnt Store that will prevent premature closure of those roads during an evacuation, closures which now limit the number of Greater Pine Island and Cape Coral residents able to evacuate.

POLICY 14.2.4: The county will make every effort to continue extending the bicycle path to run the entire length of Stringfellow Road. Wherever possible, this path should be designed as a major public amenity similar to the high-quality design used for the bicycle path north of Pineland that was completed in 2001.

POLICY 14.3.3: The county's zoning regulations will Land Development Code will continue to state that no building or structure on Greater Pine Island will be erected or altered so that the peak of the roof exceeds thirty-eight (38) feet above the average grade of the lot in question, or forty-five (45) feet above mean sea level, whichever is the lower. No deviations from these height restrictions may be granted through the planned development process. These height restrictions will not be measured from minimum flood elevations nor will increases in building height be allowed in exchange for increased setbacks. Industrial buildings must also comply with these height restrictions.

POLICY 14.3.5: The county will amend its land development code to provide specific regulations for neighborhood connectivity and walls and gates on Greater Pine Island if an acceptable proposal is submitted by the Greater Pine Island community. These regulations would require interconnections between adjoining neighborhoods wherever feasible and would no longer allow perimeter walls around larger developments.

POLICY 14.4.3: The county will expand the commercial design standards in its land development code to provide specific architectural and site design standards for Greater Pine Island if an acceptable proposal is submitted by the Greater Pine Island community. These

standards would promote but not mandate rehabilitation over demolition; require smaller rather than larger buildings; avoid standardized franchise buildings; preserve mature trees wherever possible; place most parking to the side and rear; require large windows and forbid most blank walls; and encourage metal roofs and other features of traditional "Old Florida" styles. The new commercial design standards will reflect the different characteristics of Bokeelia, Pineland, Matlacha, and St. James City.

POLICY 14.4.4: The county will expand its current sign regulations to include specific standards for Greater Pine Island (if an acceptable proposal is submitted by the Greater Pine Island community. These standards would reduce the size of ground-mounted signs, discourage or disallow internally lit box signs, allow wall signs on buildings near the right-of-way, and allow small directional signs on Stringfellow Road for businesses not visible from the road.

POLICY 14.4.5: The county will establish a prioritized schedule for an effort to rezone land to zoning districts that properly reflect its development potential under the Lee Plan.

POLICY 14.5.4: The county will update its historic sites survey of Greater Pine Island if an update is determined to be needed. The county will consider formal local designation of additional historic buildings, especially in St. James City, Pineland, and Bokeelia, and will identify potential buildings or districts for the National Register of Historic Places.

Proposed new comprehensive plan policy establishing a new non-urban designation on the County's Future Land Use Map:

The following proposed policy will be necessary to implement the requirements of Policy 14.1.8 listed above.

POLICY 1.4.7: The Coastal Rural areas will remain rural except for portions of properties where residential lots are permitted in exchange for permanent preservation or restoration of native upland habitats on the remainder of the property. The standard maximum density is one dwelling unit per ten acres (1DU/10 acres). Maximum densities may increase as higher percentages of native habitat are permanently preserved or restored on the uplands portions of the site in accordance with the chart below. Permitted land uses include agriculture, fill-dirt extraction, conservation-uses, and residential uses up to the following densities:





<u>Percentage of the on site uplands that are preserved or restored native habitats</u>	<u>Maximum density</u>
<u>0%</u>	<u>1 DU/ 10 acres</u>
<u>5%</u>	<u>1 DU/ 9 acres</u>
<u>10%</u>	<u>1 DU/ 8 acres</u>
<u>15%</u>	<u>1 DU/ 7 acres</u>
<u>20%</u>	<u>1 DU/ 6 acres</u>
<u>30%</u>	<u>1 DU/ 5 acres</u>
<u>40%</u>	<u>1 DU/ 4 acres</u>
<u>50%</u>	<u>1 DU/ 3 acres</u>
<u>60%</u>	<u>1 DU/ 2 acres</u>
<u>70%</u>	<u>1/DU/ 1 acre</u>

MAP 1
CPA 2001-18




Proposed Future Land Use
August 29, 2002

Legend



FUTURE URBAN AREAS

-  Urban Community
-  Suburban
-  Outlying Suburban
-  Public Facilities



NON-URBAN AREAS

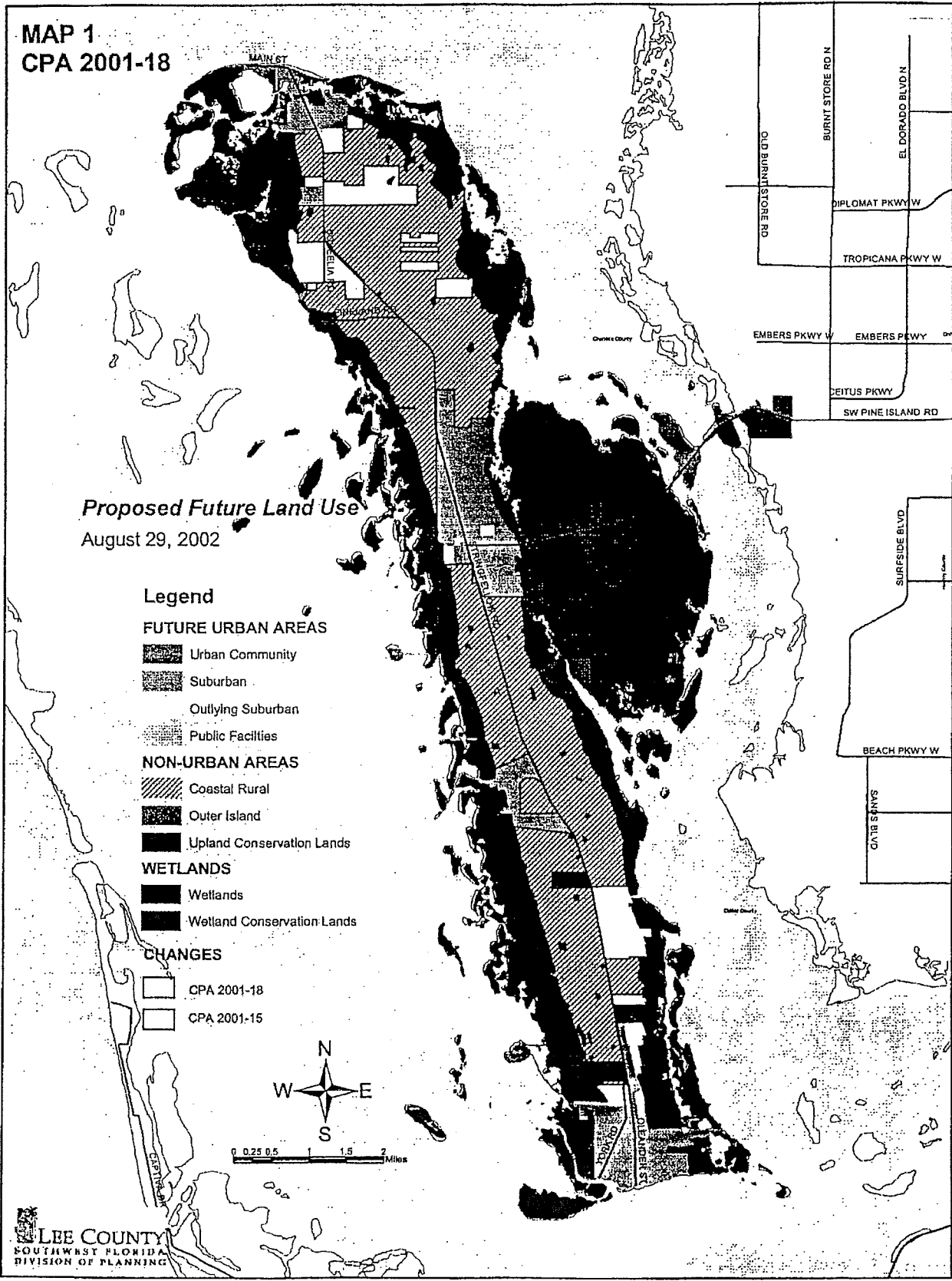
-  Coastal Rural
-  Outer Island
-  Upland Conservation Lands

WETLANDS

-  Wetlands
-  Wetland Conservation Lands

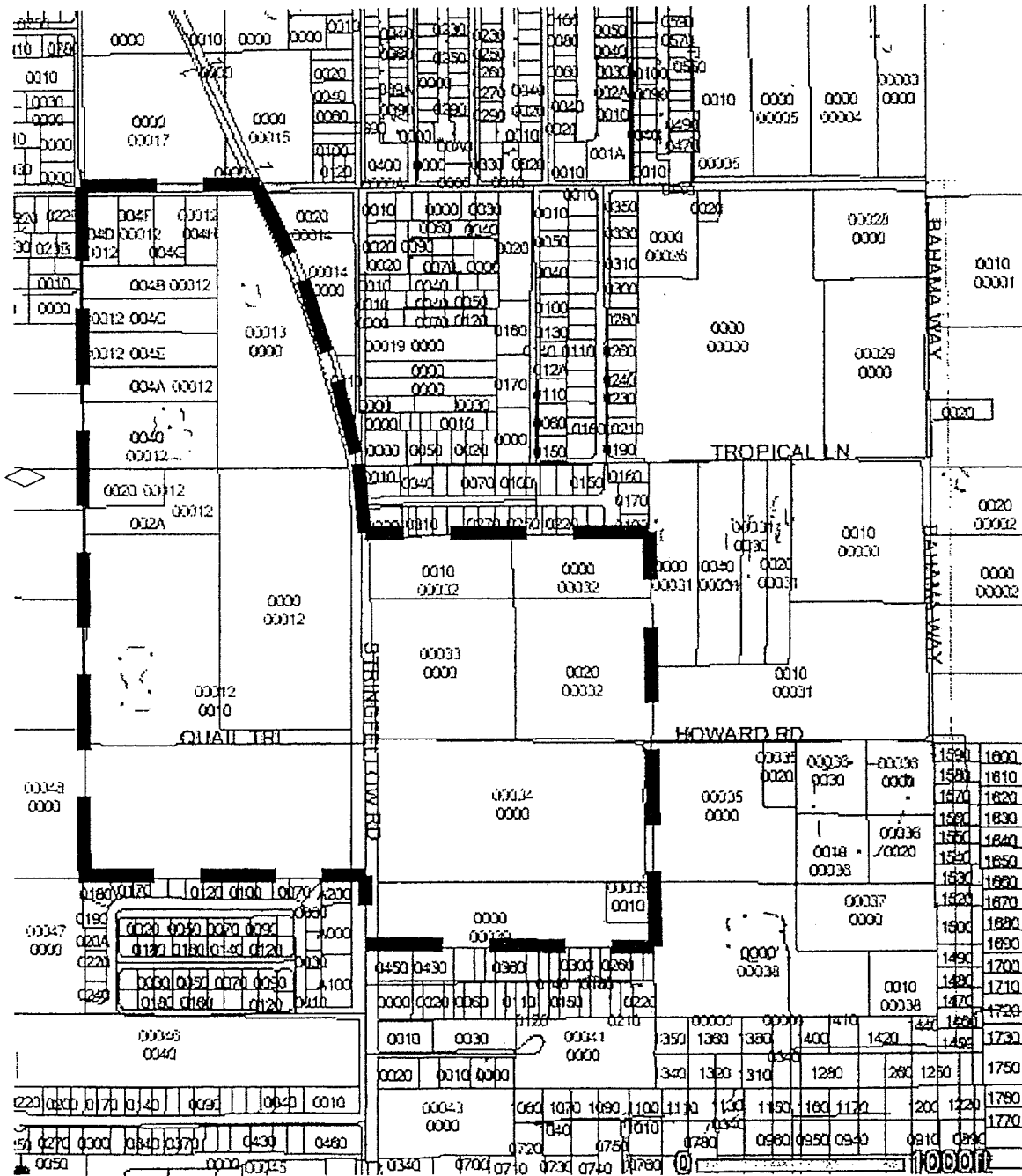
CHANGES

-  CPA 2001-18
-  CPA 2001-15



MAP 2, CPA 2001-18

SHOWING 157 ACRES BEING CHANGED FROM "OUTLYING SUBURBAN"
TO "COASTAL RURAL" IN S.T.R. 31-43-22 IN BOKEELIA, FLORIDA



DIVISIONS OF FLORIDA DEPARTMENT OF STATE
Office of the Secretary
Division of Administrative Services
Division of Corporations
Division of Cultural Affairs
Division of Elections
Division of Historical Resources
Division of Library and Information Services
Division of Licensing
MEMBER OF THE FLORIDA CABINET



FLORIDA DEPARTMENT OF STATE
Ken Detzner
Secretary of State
DIVISION OF ELECTIONS

HISTORIC PRESERVATION BOARDS
Historic Florida Keys Preservation Board
Historic Palm Beach County Preservation Board
Historic Pensacola Preservation Board
Historic St. Augustine Preservation Board
Historic Tallahassee Preservation Board
Historic Tampa/Hillsborough County
Preservation Board
RINGLING MUSEUM OF ART

January 17, 2003

Honorable Charlie Green
Clerk of Circuit Court
Lee County
Post Office Box 2469
Ft. Myers, Florida 33902-2469

Attention: Ruth Frymier, Deputy Clerk

Dear Mr. Green:

Pursuant to the provisions of Section 125.66, Florida Statutes, this will acknowledge receipt of your letter dated January 15, 2003 and certified copies of Lee County Ordinance Nos. 03-01 through 03-07, which were filed in this office on January 17, 2003.

Sincerely,

Liz Cloud, Chief
Bureau of Administrative Code

LC/mp

2003 JAN 21 AM 10:53
RECORDS OFFICE

ADDENDUM D

GREATER PINE ISLAND

COMMUNITY PLAN UPDATE

GREATER PINE ISLAND COMMUNITY PLAN UPDATE

This document presents a community plan update for Greater Pine Island. Background material on current conditions is followed by specific proposals to amend Lee County plans and regulations that affect Greater Pine Island.

A quick summary of this plan is available by reviewing the shaded boxes throughout this document. One of Greater Pine Island's major planning issues is summarized in each box, followed by one or more recommended responses.

This entire plan update has been sponsored as a community service by the Greater Pine Island Civic Association, with professional assistance by Spikowski Planning Associates, aided by Mohsen Salehi Consulting Services, both of Fort Myers. Generous financial assistance was provided by the Lee County Board of Commissioners, the Florida Department of Community Affairs, and the Elizabeth Ordway Dunn Foundation with assistance from the Florida Wildlife Federation. Updates on the progress of this plan are published in the Pine Island Eagle and are also available at <http://www.spikowski.com/pineisland.htm> and <http://www.PineIslandNews.com>

Written comments can be forwarded to the Greater Pine Island Civic Association at P.O. Box 478, St. James City, FL 33956.

This plan update was formally submitted to Lee County on September 28, 2001. Formal public hearings will be held in Fort Myers. Notices are published in advance in the News-Press.

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INTRODUCTION TO THIS PLAN UPDATE

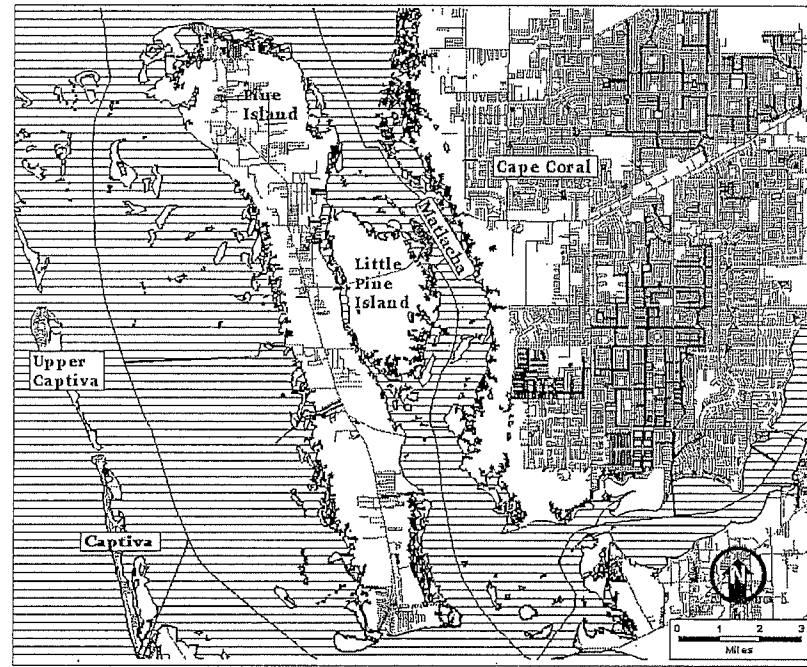
Pine Island, Little Pine Island, and Matlacha share many characteristics and are collectively called Greater Pine Island, or simply Pine Island. These islands are located west of Cape Coral and mainland Lee County but inside the string of barrier islands along Florida's west coast.

While geographically separate, Greater Pine Island is part of unincorporated Lee County and is governed by its board of county commissioners. Although without legal self-determination, local residents have always been vocal about public affairs, especially planning and zoning. An informal coalition of Pine Island residents formulated the original "future land use map" for Pine Island that was adopted by Lee County into its 1984 comprehensive plan (the original Lee Plan). Five years later, a community plan prepared by the Greater Pine Island Civic Association was the basis for a complete section of the Lee Plan (now under Goal 14) dedicated to the future of Pine Island.

The opening statement of the community plan explained its purpose:

GOAL 14: *To manage future growth on and around Greater Pine Island so as to maintain the island's unique natural resources and character and to insure that island residents and visitors have a reasonable opportunity to evacuate when a hurricane strike is imminent.*

Over ten years have passed since Goal 14 and its supporting policies and maps were adopted. Many of those policies are still pertinent; a few have not been implemented fully. However, due to the passing of time, new factors have arisen that require an overall re-examination of the plan. The explosion of agricultural activity on the northern half of Pine Island was not anticipated.



Residential growth has slowed somewhat from the 1980s. And traffic on Pine Island's only link to the mainland has increased, reaching target levels that were set in the 1989 plan to indicate the imminent overloading of the road system.

This current plan update begins with a general description of Greater Pine Island and its past and present residents, referred to in this plan simply as Pine Islanders. Major planning issues are then discussed in detail: hurricane evacuation, traffic, town and country boundaries, community character issues, and the environment. Each planning issue ends with a policy conclusion and specific recommendations for changes to the Lee Plan and the land development code.

Pine Island – the Place and the People

Pine Island is physically separated from the rest of Lee County. Situated within the estuary formed by Charlotte Harbor, Pine Island Sound, and San Carlos Bay, Pine Island differs in geography from the mainland to the east and the barrier islands to the west, though sharing some of the characteristics of each. It is a 10,000- to 12,000-year-old accretion island of some 33,620 acres, over a third of it mangrove forest and the remainder upland (originally slash pine and palmetto, now mostly cleared for agriculture or developed).

Pine Island's ecosystem is unique. Its mangrove shoreline and seagrasses just offshore play a vital role in the cycle of all aquatic life, supporting fishing interests both commercial and recreational. These plants are important elements in the well-being of the entire estuary, serving as its filtration system, aquatic nursery, and feeding ground. Seagrasses in Charlotte Harbor have declined by 29% over the last 40 years; much of the decline was caused by dredging and maintenance of the intracoastal waterway.

Within recent years large areas of pine forest have been cleared for agriculture. Currently over 3,600 acres are in agricultural use, with 36% in rangeland, 35% in nurseries, 21% in groves, and 5% in vegetables. The moderating influence of surrounding waters on the climate creates ideal growing conditions for certain tropical fruits such as mangoes, carambola, and lychees (99% of Lee County's tropical fruit acreage is on Pine Island). Ornamental palms of several varieties are now being widely grown on Pine Island. The tradeoff is this: every acre of land cleared for agriculture is an acre lost to its natural inhabitants. Furthermore, the extent of damage from fertilizers, herbicides, and pesticides draining into the estuary is not known. Efforts to monitor these conditions are both modest and underfunded.

Pristine areas remaining on the island provide a haven for an abundance of wildlife, much of it endangered and threatened — bald eagle, wood stork, osprey, ibis, heron, egret, pelican, manatee, alligator, gopher tortoise, eastern indigo snake, and beautiful pawpaw, to name a few.

Pine Island's history sets it apart. Archaeological finds in Pineland confirm the existence of one of the most important sites of the Calusa Indians, dating back more than 1,500 years. Digs and educational tours at the Randell Research Center are ongoing, as well as efforts by the non-profit Calusa Land Trust to purchase the remaining portions of a cross-island canal constructed by the Calusa Indians. The Pineland site is on the National Register of Historic Places.

Later settlers, appearing on the scene late in the 19th century and early in the 20th, contributed their own colorful chapter to the history of the island, eking out a hardscrabble subsistence fishing and farming. By the early 20th century, citrus and mango groves were planted near Pineland and Bokeelia. Many descendants of these pioneering families still live on the island.

Pine Island differs from other communities in Lee County in the needs, interests, and aspirations of its people. Its population is diverse, made up of old commercial fishing families, a large population of retirees from the north, and younger working families with children attending school, with families finding employment both on and off the island.

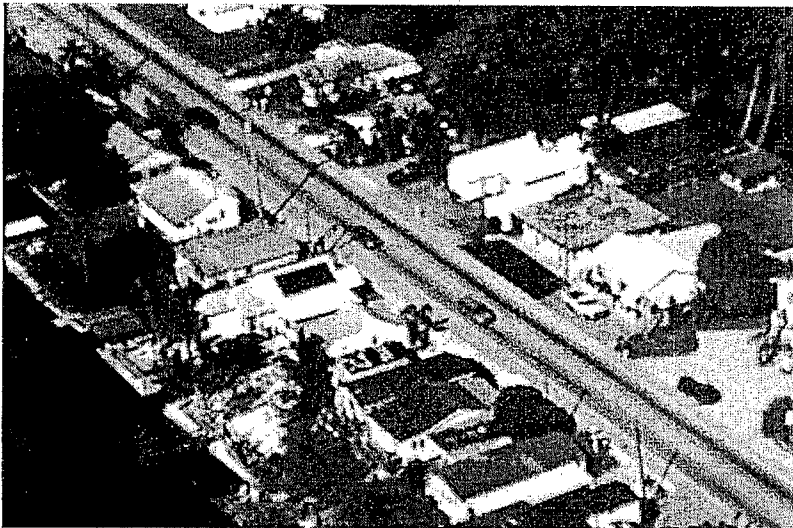
Each group harbors its own priorities and ambitions, yet they share common traits. They are independent-minded and they all chose to come to this place looking for privacy, a laid-back lifestyle, a setting of slash pine and open skies and blue water — qualities there for all to enjoy, whether by fishing the waters, or biking through the neighborhood, or simply returning from a hard day at the office or jobsite and crossing the bridge at Matlacha to find a refuge from heavy traffic and urban sprawl.

Peace and tranquility brought them to Pine Island, and that is what they value most.

Life on Pine Island mixes country living with the wonders of being surrounded by water, a fragile combination in coastal Florida. Without attention, the treasures of this unique place may be obliterated.

Looking east from the bridges at Matlacha, Pine Islanders see a vast expanse of sameness, a development form that suits the needs of others but that seems alien and a threat to Pine Islanders' vision of their own future.

Pine Island has two traffic problems resulting from the near-impossibility of widening Pine Island Road through Matlacha without destroying its historic district. This road is nearing its capacity for meeting the daily travel needs of Pine Islanders and visitors, and it is barely adequate for evacuating low-lying areas in case of tropical storms and hurricanes.



Matlacha historic district, bisected by Pine Island Road

Photo courtesy of Mohsen Salehi and Bill Dubin

"Places like Matlacha are rare in this state, not just for its historical interest, but because the locals thrive by protecting the place. They like where they live and don't want to change it. Tourists respond by coming just to hang out on the bridges yakking with fisherfolk, then staying to buy local crafts and eat the fish they've seen caught. They come because they want to feel part of a real place, a place that doesn't put on mouse ears to pull them in."

— Florida writer Herb Hiller

The main mechanism currently protecting Pine Island from overdevelopment that would worsen the existing congestion and evacuation hazard has been Policy 14.2.2, found in the Lee Plan as follows:

POLICY 14.2.2: *In order to recognize and give priority to the property rights previously granted by Lee County for about 6,800 additional dwelling units, the county shall consider for adoption development regulations which address growth on Pine Island and which implement measures to gradually limit future development approvals. The effect of these regulations would be to appropriately reduce certain types of approvals at established thresholds prior to the adopted level-of-service standard being reached, as follows:*

- *When traffic on Pine Island Road between Burnt Store Road and Stringfellow Boulevard reaches 810 peak hour, annual average two-way trips, the regulations shall provide restrictions on further rezonings which would increase traffic on Pine Island Road.*
- *When traffic on Pine Island Road between Burnt Store Road and Stringfellow Boulevard reaches 910 peak hour, annual average two-way trips, the regulations shall provide restrictions on the further issuance of residential development orders (pursuant to the Development Standards Ordinance), or other measures to maintain the adopted level of service, until improvements can be made in accordance with this plan.*

Ten years after this policy was adopted, here are the critical facts:

- Of the “6,800 additional dwelling units” cited in Policy 14.2.2, about 6,675 still can be built at any time (without requiring any further rezonings or subdivision approvals).
- Official Lee County traffic counts for the year 2000 show that the 810-trip threshold has now been exceeded for the third consecutive year.
- There are no practical or economically feasible plans to widen Pine Island Road through Matlacha or provide a second road to Pine Island.

Given these facts, it is clear that further increases in traffic are inevitable as property rights previously granted are exercised. The question is: how many *more* development rights will Lee County grant on top of those already in existence?

The conflict between these two realities—impending population growth on the island on the one hand and traffic exceeding limits established by the Lee Plan on the other—is the dilemma faced by island residents and by Lee County in the coming years. The proposals in this plan update represent the best efforts of Pine Islanders to deal with this conflict and to manage growth responsibly in the coming decades.

Growth is inevitable. Pine Islanders recognize that as a fact of life, but they seek a kind of responsible growth that preserves and enhances the best features of Greater Pine Island.

Existing Private Property Rights

In a 1989 study about Greater Pine Island, Lee County tabulated the number of existing dwelling units and the number of additional dwelling units that have already been approved but not yet built.¹ Most of the “approved” units are reflected in older subdivision plats where the lots have already been sold off to individual owners; a small number of the “approved” units were in development orders issued by Lee County that may or may not be developed. That inventory showed 4,256 existing dwelling units and 6,663 “additional units” not yet constructed. (Unlike the U.S. Census, that inventory counted mobile homes and fixed recreational vehicles such as those in Cherry Estates as dwelling units.)

As part of this plan update, additional data sources were examined that might verify, contradict, or update those figures. One data source is the Lee County Coastal Study, which counted the number of dwelling units that existed in 1985 based on the official tax rolls. Another is a complete new inventory of existing and approved dwelling units conducted for this plan update, the complete results of which are found in Appendix C. Table 1 below summarizes those new data sources and presents a revised estimate of 6,675 additional dwelling units yet to be built, based on existing approvals. These “build-out” totals do not include development rights for unplatted vacant land or agricultural land.

This estimate of the number of additional dwelling units yet to be built is very close to Lee County’s 1989 estimate. It is true that some, possibly many, of these dwelling units will never be built, due to limited demand, or vacant lots being held as open space by adjoining owners, or unforeseen permitting problems. Yet the magnitude of the development rights already granted is

¹ *Commercial Study: Pine Island*, Lee County Department of Community Development, July 1989.

overwhelming to Greater Pine Island, given the factors that will be discussed in the following sections of this report.

TABLE 1

Dwelling Unit Totals for 1985, 2000, and Build-out

Pine Island, By Sector	Dwelling Units		(15-year increase)	Dwelling Units	
	1985	2000		Build-out	(additional)
Bokeelia	393	914	521	1,735	821
Pineland	128	322	194	2,022	1,700
Pine Island Center	485	873	388	2,269	1,396
Matlacha	632	695	63	1,029	334
Flamingo Bay	717	869	152	1,330	461
Tropical Homesites	117	259	142	713	454
St. James City	1,182	1,705	523	3,213	1,508
TOTALS:	3,654	5,637	1,983	12,311	6,674

SOURCES:

1985 dwelling units: Lee County Coastal Study, pages 3 through 13 of Volume II, Godschalk & Associates, 1988.

2000 and build-out dwelling units: See full data in Appendix C.

Sector boundaries: See map in Appendix C.

TRANSPORTATION ISSUES

Hurricane Evacuation

Pine Islanders will have a very difficult time evacuating if the island is struck by hurricanes of certain types.

Updated evacuation estimates were recently provided for Pine Island by the Southwest Florida Regional Planning Council (SWFRPC). In the event of a Category 2 hurricane coming from the most hazardous direction in the month of November, over 20 hours could be required for an evacuation.²

This evacuation time is unacceptably high even at today's population levels. Hurricane forecasters are not confident that they can provide this much warning that a hurricane is likely to strike a specific area. Also, this evacuation time already exceeds the regional³ and county⁴ standards for evacuation times.

These problems are not isolated to Pine Islanders alone. First, any evacuation of Pine Island would include residents of Upper Captiva and Useppa. Second, although Matlacha and its two-

² This time period includes 12 hours to get all evacuating vehicles through the most restrictive segment of the evacuation route (called the "clearance time") and to a shelter or to the county line, plus 8 hours ("pre-landfall hazard time") to account for the time before the hurricane strikes when the evacuation must cease due to gale force winds or tidal waters flooding the evacuation route. This time period could be reduced slightly if westbound traffic is temporarily banned from Pine Island Road, which may be ordered during the latter part of an evacuation if traffic is backing up on Pine Island.

³ "Projected evacuation times will be regularly reduced from 1995 levels, and by 2010, evacuation times will not exceed 18 hours in any part of the region." [Goal III-5, Strategic Regional Policy Plan, SWFRPC, 1995]

⁴ "By 1995, evacuation times will be restored to 1987 levels using the 1987 Southwest Florida Regional Hurricane Plan Update as guidance; and by 2010, the clearance time portion of evacuation time will not exceed 18 hours." [Objective 79.1, Lee County Comprehensive Plan]

lane drawbridge will create a bottleneck for vehicles exiting the island, a potentially more dangerous bottleneck exists on the mainland to the east of the bridge.

The SWFRPC study presumes that “a successful road network exists to take people to a safer place on higher ground.” Unfortunately for Pine Islanders, this network includes Burnt Store Road (subject to flooding in heavy rains that often accompany hurricanes), the Del Prado Extension, and Pine Island Road.

At the present time Pine Island Road is only two lanes all the way to Santa Barbara in Cape Coral. A heavy influx of evacuees from low-lying areas of western Cape Coral can be expected to also end up on Pine Island Road, slowing traffic flow. Burnt Store Road is being extended to the south now and Pine Island Road will be widened to four lanes between Chiquita and Santa Barbara in about four years, but no other improvements are planned through at least the year 2020.

Lee County roads are not the only barrier to successful evacuation; there is a serious shortage of places for evacuees to stay. Consider the potential consequences of a Category 3 storm (as Donna was, in 1960), arriving in November from the southwest, making landfall not at Fort Myers Beach but at Boca Grande. Under this unlucky scenario, 14 designated shelters out of 34 would be unusable, and extensive stretches of the evacuation routes would be under water, according to Lee County Emergency Management maps. Under those conditions, Pine Island evacuees would be at the tail end of a queue made up of evacuees from much of Cape Coral and North Fort Myers, joined by many others from coastal areas as far south as Naples, all heading north on U.S. 41 and I-75, both of which are subject to flooding even in some tropical storms. There is serious potential for the resulting gridlock to trap tens of thousands of residents directly in harm’s way.

Based on these factors and the inability to provide additional roads to Pine Island (as discussed later in this report), Lee County would be justified in immediately limiting any further development on Pine Island. However, in recognition of the private property rights already granted, as discussed in the previous section, this plan recommends a series of measures that, taken together, will avoid the creation of substantial additional property rights that would exacerbate today’s serious hurricane evacuation problem.

SETTING THE COURSE

Even with *no* additional development, Pine Island exceeds regional standards for the time needed to evacuate when a hurricane approaches. Planned road improvements through Cape Coral may reduce evacuation times slightly. But as Cape Coral grows to its planned population of 350,000 people, evacuation problems will continue to increase. Lee County should pursue any measures that can improve evacuation times. Unnecessary rezonings and other development approvals that would exacerbate this situation must be avoided.

GETTING THERE

1. Modify comprehensive plan Policy 14.2.3 as follows:
POLICY 14.2.3: In addition to the enforcing the restrictions in the Policy 14.2.2, the county shall take whatever additional actions are feasible to increase the capacity of Pine Island Road. The following measures shall be evaluated:
 - The construction of left-turn lanes at intersections with local roads in Matlacha, or a continuous third lane.
 - Improvements to Burnt Store Road and Pine Island Road to the east of Burnt Store that will prevent premature closure of those roads during an evacuation, closures which now limit the number of Greater Pine Island and Cape Coral residents able to evacuate.
2. Modify comprehensive plan policy 14.2.2 as proposed later in this report.

Road Constraints

Access to Pine Island was strictly by boat until 1926 when the causeway carrying Pine Island Road was built through the mangrove islands that became Matlacha. With road access, modern development became practical.

For many decades, this two-lane road was sufficient to meet all demands placed upon it. Although there have been occasional discussions about a second bridge to Pine Island, the hurdles facing such a plan have always been insurmountable.

Appendix A of this plan contains a complete discussion of transportation constraints affecting Pine Island. The remainder of this section is excerpted from Appendix A.

Constraints on access to Pine Island

As the years progressed, traffic on Pine Island Road has continually increased. By general county standards, the current congestion would warrant plans to widen it to four lanes.

However, in 1989 Lee County formally designated Pine Island Road through Matlacha as “constrained,” meaning that the road cannot (or should not) be widened for the preservation of the scenic, historic, environmental and aesthetic character of the community. Since that time, Lee County has also designated the heart of Matlacha as a historic district, further protecting it from road widening that would damage its character.

The decision not to widen a constrained road can obviously increase congestion. Because counties are required by state law to set maximum levels of congestion on every road, a very high level had to be set for all constrained roads. This normally causes only minor problems, because other parallel roads can handle much of the overflow traffic.

On Pine Island Road the traffic levels theoretically allowed on constrained roads could have had alarming consequences because it would legally indicate that there was road capacity to develop vast tracts of vacant Pine Island land. To avoid this problem, the county chose to modify a 1988 proposal from the Greater Pine Island Civic Association to gradually limit development on Pine Island as Pine Island Road began to approach its capacity. The proposal would have prohibited rezoning most additional land for development when 80% of road capacity was used up, and prohibited approvals of new subdivisions, even on land already zoned, when 90% was used up. This proposal ultimately was adopted as Policy 14.2.2, which restricts rezonings when traffic on Pine Island Road reaches 810 trips per hour and restricts other approvals at 910 trips (see full text of Policy 14.2.2 on page 3).

Since 1990, traffic on Pine Island Road in Matlacha has increased by about 22%. Figure 1 shows the averages for each year, with a visual comparison to the 810 and 910 thresholds. The 810 threshold was surpassed in 1998, 1999, and 2000.

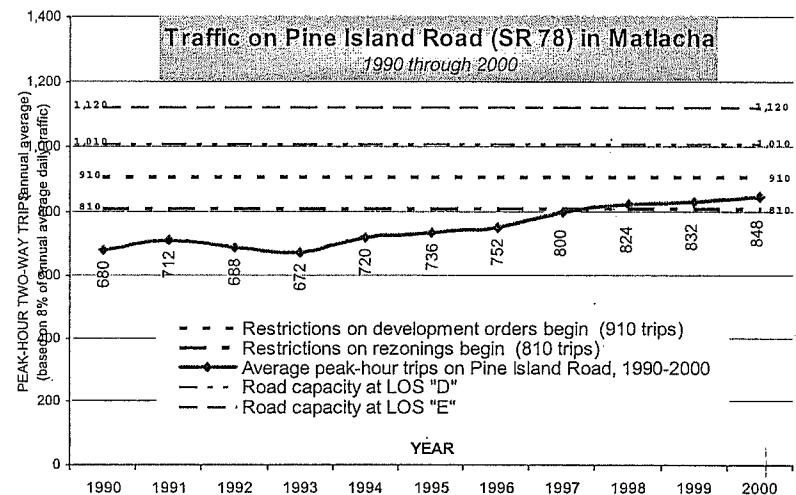


Figure 1, Traffic on Pine Island Road in Matlacha, 1990 through 2000

These significant traffic increases occurred during a decade where there was relatively little new subdivision or condominium development on Pine Island. Population increases resulted mostly from the construction of new homes on pre-existing vacant lots.

Physical alternatives that could improve access

Appendix A examines road improvements that might be able to improve road access to Pine Island. These improvements could have a variety of physical impacts, primarily in Matlacha if the existing right-of-way were reconfigured or widened. The impacts would be primarily environmental if an entirely new access road were built.

Widening Pine Island Road

The critical segments of Pine Island Road have only 66 feet of right-of-way (approximately the distance between utility poles). The existing pavement, including the paved shoulders, is about 32 feet wide. Without widening it could be rebuilt and reconfigured to three lanes of almost 11 feet each, and the unpaved shoulders could be paved to serve as breakdown lanes or sidewalks. The third travel lane could serve either as a two-way left turn lane or as a reversible lane for use in the busier direction.

Adding a third lane would cause a number of problems, however. Pedestrians trying to cross Pine Island Road would have to walk a greater distance, making the crossing less safe, and they would lose the use of the paved shoulder, which now functions as an informal sidewalk. The character of Matlacha would lose some of its village atmosphere and pedestrian orientation, replaced with a more highway-oriented character, plus businesses and homes would lose some of their parking.

The road could also be widened and converted into an urban street with curbs, for instance with four 11-foot lanes, 2-foot concrete curbs and gutters, and 9-foot raised sidewalks.

This configuration would significantly increase the traffic-carrying capacity of Pine Island Road. However, it would require extensive earthwork and metal railings, similar to the recently rebuilt San Carlos Boulevard as it approaches Fort Myers Beach. Sidewalks would extend to the very edge of the right-of-way, putting them directly adjacent to many buildings whose fronts are on the right-of-way line. It would also eliminate all parking from the right-of-way, a major disadvantage that would seriously damage, if not eliminate, the viability of many small businesses. And unless the bridges were widened as well, either approach would still face the bottleneck of having a three-lane or four-lane road narrow into two-lane bridges. The normal engineering solution of widening the road through Matlacha to four travel lanes cannot be considered as a viable or practical option because it would seriously harm Matlacha's village atmosphere and pedestrian orientation.

Widening the right-of-way is also not a solution. Shallow lots often back up to the waters of Matlacha Pass and many of the existing buildings directly adjoin the existing right-of-way. Thus, widening the right-of-way would involve altering or demolishing many buildings in Matlacha. Lee County's 1990 designation of Matlacha as a historic district would not legally prevent the county from altering historic buildings, but it indicates the historic value of many of Matlacha's buildings in addition to its unique village character.

New bridge bypassing Matlacha

The capacity of Pine Island Road could also be increased by building a new bridge immediately to the south of Matlacha. It could provide uninterrupted two-way traffic, or one-way traffic with the existing Pine Island Road serving traffic in the other direction.

Two-way traffic is generally more convenient to the public. One-way traffic allows more cars to use the same amount of roadway, but is generally regarded as being harmful to businesses

along the route. Either scenario would create serious intersection impacts at each end, and could cause additional travel to connect motorists with their actual destinations.

Pine Island Road is a county road west of Burnt Store Road (as are both bridges). Any improvements would be constructed and paid for by Lee County. As major bridges are generally beyond the ability of the county to pay for with current revenue sources, they are built with the proceeds from selling bonds, which are then paid back over time (usually with tolls).

Based on recent costs for bridge building, a new bridge should be expected to cost at least \$50 million and perhaps \$100 million (see cost comparisons in Appendix A).

State and federal permits are required for all new bridges, and are difficult to obtain, especially for a new bridge through the Matlacha Pass Aquatic Preserve. At least at present, building a new bridge around Matlacha is not a feasible option.

Entirely new bridge and entrance road

Another alternative involving a new bridge would be to extend Cape Coral Parkway westerly across Matlacha Pass, ending about halfway between St. James City and Pine Island Center near the Masters Landing power line. A continuous bridge would be needed to avoid interference with tidal flows.

This alignment would extend into the Cape Coral city limits, adding an extra layer of regulatory issues. The new bridge would add traffic onto Cape Coral Parkway, which is planned to be widened to six lanes but cannot be widened further.

This option, like the Matlacha bypass option, is currently cost-prohibitive and could have major environmental impacts on Matlacha Pass. Neither new-bridge option can be considered to be feasible.

Transportation policy alternatives

Beginning in 1998, the 810-trip threshold in Policy 14.2.2 has been exceeded each year. Once they became aware of this fact, the Lee County Commission voted to reexamine this policy.

No technical factors or changes since 1989 have been discovered in the course of this planning process that would justify abandoning the 810 or 910 thresholds in this policy. However, there is an opportunity at this time to determine the best way to fully implement this policy in the fairest possible way.

In 1991 Lee County amended its land development code using language almost verbatim from Policy 14.2.2. This is a problem because it is not self-evident which kinds of rezonings will “increase traffic on Pine Island Road.” A better approach would be to have clearer regulations to implement Policy 14.2.2.

For instance, some types of rezonings would have minor or even positive effects on traffic flow in Matlacha. A convenience store in St. James City would serve only local residents and those passing by and would attract *no* new trips through Matlacha. A larger grocery store in St. James City would attract shoppers from a larger area, perhaps including some who currently drive to Matlacha or Cape Coral to shop for groceries, possibly *decreasing* traffic on Pine Island Road. However, a large new hotel or marina on the same property could have a different effect.

Thus an important distinction could be made in implementing Policy 14.2.2 between those land uses that primarily serve residents or visitors who are already on Pine Island, and land uses that primarily attract additional people across Pine Island Road. For instance, the following commercial uses would primarily serve residents and visitors: grocery, hardware, and convenience stores; hair salons; and service stations.

This distinction would be clouded somewhat by other factors, particularly the size and location of commercial uses. Some

small commercial uses might be exempted from this policy.

Other alternatives would be to:

- allow minor rezonings below a certain size if they are proposed on “infill” properties between existing development at similar intensities (rather than expanding or intensifying already-developed areas);
- allow rezonings whose characteristics are such that traffic during the busiest peak hours would not be increased;
- give preference to rezonings for small enterprises that promote the nature and heritage of Greater Pine Island.

In summary, none of the available options for adding significant road capacity to Pine Island are practical. Building four lanes through Matlacha would seriously damage Matlacha’s village atmosphere and pedestrian orientation. Either new-bridge option would have serious environmental impacts and there are no funds for such expensive undertakings. The increased traffic capacity of either bridge would most likely lead to approval of more development on Pine Island, negating the initial positive impacts on traffic flow and hurricane evacuation.

SETTING THE COURSE

Lee County made a sound decision in 1989 to slow development on Pine Island as the capacity of Pine Island Road through Matlacha is reached. This system should be maintained because no practical method of increasing road capacity has been identified. The specific regulations that govern this slowing should be clarified so that small-scale infill development isn’t prohibited. However, additional larger-scale development rights should not be granted where there is no ability to provide basic services such as minimal evacuation capabilities.

GETTING THERE

Modify comprehensive plan Policy 14.2.2 as follows:

POLICY 14.2.2: In order to recognize and give priority to the property rights previously granted by Lee County for about 6,675-6,800 additional dwelling units, the county shall keep in force effective consider for adoption development regulations which address growth on Pine Island and which implement measures to gradually limit future development approvals. The effect of These regulations shall would be to appropriately reduce certain types of approvals at established thresholds prior to the capacity of Pine Island Road adopted level-of-service standard being reached, measured as follows at the permanent count station on Little Pine Island at the western edge of Matlacha:

- When traffic on Pine Island Road between Burnt Store Road and Stringfellow Boulevard reaches 8:10 peak hour, annual average two-way trips, the regulations shall provide restrictions on further rezonings which would increase traffic on Pine Island Road through Matlacha. These regulations shall provide reasonable exceptions for minor rezonings on infill properties surrounded by development at similar intensities and those with inconsequential or positive effects on peak traffic flows through Matlacha, and may give preference to rezonings for small enterprises that promote the nature and heritage of Greater Pine Island.
- When traffic on Pine Island Road between Burnt Store Road and Stringfellow Boulevard reaches 9:10 peak hour, annual average two-way trips, the regulations shall provide restrictions on the further issuance of residential development orders to one-third the maximum density otherwise allowed on that property, (pursuant to the Development Standards Ordinance), or other measures to maintain the adopted level of service, until improvements can be made in accordance with this plan. These development regulations may provide exceptions for legitimate ongoing developments to protect previously approved densities for final phases that have a Chapter 177 plat or site-plan approval under Ordinance 86-36.

POPULATION AND LAND USE

Town and Country on Pine Island

The essential character of Pine Island has always been the contrasts among its physical environments. Surrounded by harbors and bays of unparalleled beauty, Pine Islanders live in a series of low-key settlements or “villages” that are separated by rural land. With dense mangrove forests creating barriers between most land and the water, the seven residential villages have formed in the locations with best access to the water (Bokeelia, Pineland, Matlacha, Flamingo Bay, Tropical Homesites/Manatee Bay, and St. James City). Only Pine Island Center is away from the water, in favor of the only crossroads location on Pine Island. Between these villages there has always been the sharp contrast of rural lands, dominated by slash pine/palmetto habitats and some farming operations.

Pine Island has almost no beaches, few city services, and limited employment and shopping — yet it remains a highly desirable



Pine Island Center, looking north

Photo courtesy of Mohsen Salehi and Bill Dubin

and moderate-cost alternative to the formless “new communities” that have obliterated the natural landscape throughout coastal Florida.

The current Pine Island community plan maintains the distinct villages by limiting their expansion through boundaries on a future land use map. Only a single ten-acre amendment has been approved to that map since 1989. Because the boundaries themselves have not been reexamined during that period, that effort was undertaken as part of this plan update, as described below.

Town (village) boundaries

The freestanding villages on Pine Island have been given one of three “future urban area” designations, with densities and total acreages summarized in Table 2.

TABLE 2

“Future Urban” designations on future land use map	Residential density range (DU = dwelling unit)	Actual acres in Greater Pine Island
Urban Community	1 to 6 DU/acre	1350 acres
Suburban	1 to 6 DU/acre	1427 acres
Outlying Suburban	1 to 3 DU/acre	1557 acres

“Urban Community” areas can have considerable concentrations of commercial uses, and thus were assigned to Pine Island Center and Matlacha, the commercial centers for all of Greater Pine Island.

“Suburban” areas are allowed similar densities for residential development, but with fewer commercial uses. This designation has been assigned to most of Bokeelia and St. James City, and smaller areas around the Pink Citrus, Flamingo Bay, and Pine-wood Cover mobile home parks.

“Outlying Suburban” areas are allowed half the density of “Suburban” areas, but with comparably limited commercial uses. This designation was generally assigned to all other settlements on Pine Island.

All the future urban designations were drawn tightly around existing settlements. The exceptions are about 52 acres just north of Galt Island Avenue (northwest of St. James City); 95 acres centered around the Pine Island Village subdivision south of Flamingo Bay; and 157 acres south of Bokeelia and north of September Estates. The first two exceptions apparently had been made due to imminent development activity on those parcels, and both were reasonably logical extensions of existing settlements. However, little activity has taken place on either parcel, with extensive natural vegetation remaining.

The third exception, south of Bokeelia, is the most incongruous. This entire acreage is now in intense agricultural use, with much of it cleared during the past decade (see Figure 2). Apparently it had been considered as a potential expansion of the Bokeelia urban area. Since that time, the landowners have clearly indicated a preference for agriculture and have made no efforts to develop any of the land residentially. Thus these 157 acres should be reclassified to whatever designation is ultimately assigned to the rural lands to their east and west.

Other apparent anomalies are several large clusters of rural land that have been assigned the “Outlying Suburban” designation east and northeast of Pineland. Close examination shows that these areas have been subdivided into lots averaging one-half acre, and have been almost entirely sold off to individual purchasers. The largest area, just east of Stringfellow Road, is known as the Kreamer’s Avocado subdivision. The relatively few homes that have been built there enjoy a pleasant rural setting. However, any substantial increase in homebuilding will overtax the incomplete network of unpaved roads and reduce the rural atmosphere. At such time, residents could band together and

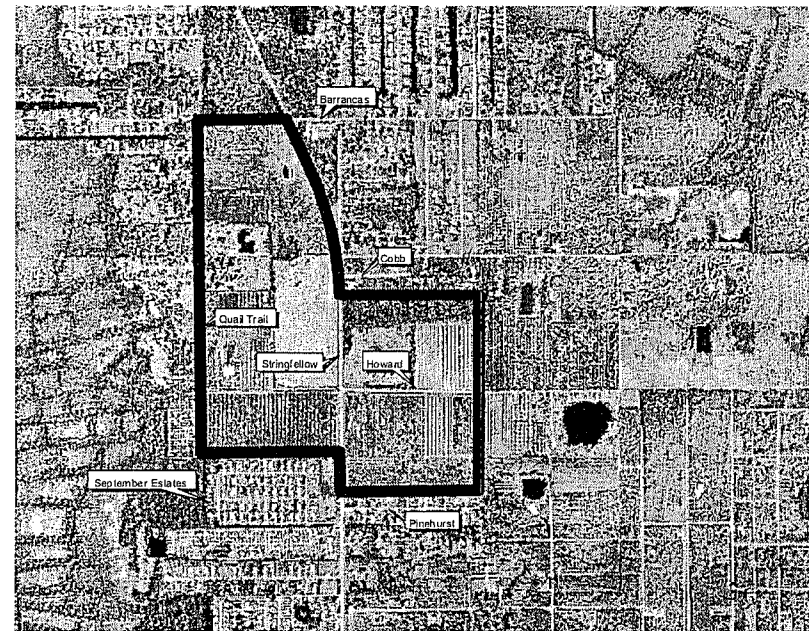


Figure 2

pave the roads and install a modest drainage system through a special taxing district. The seeming anomaly of the “Outlying Suburban” designation, however, is appropriate for the existing pattern of small subdivided lots.

The future of rural Pine Island

Outside the village boundaries, all high ground has been designated in the “Rural” category, where residential development is now limited to one dwelling unit per acre (1 DU/acre). Over the past 15 years, much “Rural” land between the villages has been converted to farmland, especially on the north half of the island, a trend that is continuing even today. This conversion has destroyed a quarter of the remaining pine-and-palmetto habitat over a 15-year period (see Table 3), a period in which farming has become the most popular and economic use of rural land on Pine Island.

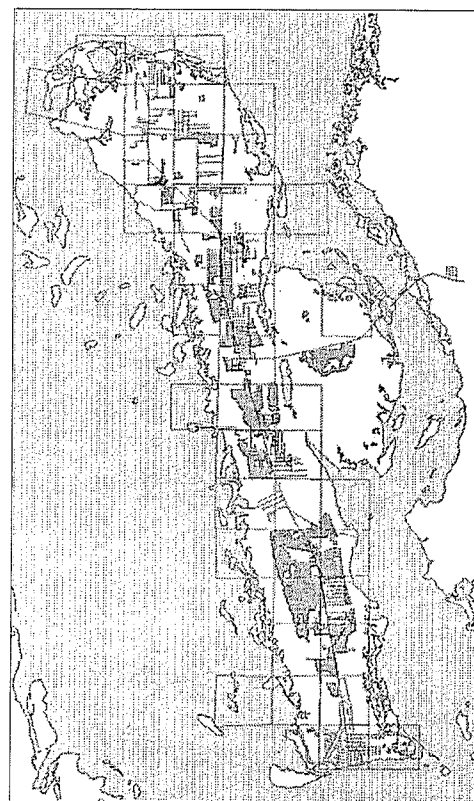
TABLE 3
Removal of Pine Flatwoods on Pine Island
1981 – 1996

Pine Island Community, By Sector	Upland Acres	Acres of Pine Flatwoods		15-Year Decrease of Pine Flatwoods	Agricultural Acres, 1996
		1981	1996		
Bokeelia	1,612	144	40	(104)	464
Pineland	2,672	373	230	(143)	1,336
Pine Island Center	2,690	859	743	(116)	365
Matlacha	224	0	0	0	0
Flamingo Bay	2,451	1,360	1,044	(316)	444
Tropical Homesites	792	581	400	(181)	12
St. James City	1,630	420	300	(120)	142
TOTALS:	12,071	3,737	2,757	(980)	2,763

SOURCES: Data based on interpretation of aerial photographs. For sector boundaries, see map in Appendix C. 1981: Lee County Coastal Study, Appendix IV-III, Godschalk & Assoc., 1988. 1996 and upland totals: Based on GIS data provided by the South Florida Water Management District.

This increase in farmland is sometimes seen as preferable to more residential subdivisions, which cannot be supported by Pine Island's limited road connections to the mainland. However, farmland can be converted to residential land very easily; the current comprehensive plan actually seems to encourage this by allowing residential development on one-acre lots without rezoning, even on active farmland. Planning professionals generally agree that one-acre lots are too small to maintain the countryside and too large to create villages; yet that is the predominant residential density allowed on Pine Island today.

During this plan update process, Pine Islanders carefully considered alternative growth-management techniques to replace the 1 DU/acre "Rural" category on Pine Island. While considering



Remaining pine flatwoods, 1996

these alternatives, the public was made aware of the current regulatory climate: regulations that are so strict as to essentially "take away" *all* rights to private property rights are illegal, and such "takings" must be fully compensated to the landowner, an enormously expensive undertaking.

In addition, in 1995 the Florida legislature passed the Bert J. Harris, Jr. Private Property Rights Protection Act. This act established a new standard for preventing overly strict regulations on land — any regulation that is determined to

place an "inordinate burden" on a landowner may now require compensation, even though it isn't a "taking" of all property rights. This act does not mean that land-use regulations cannot be made stricter, even if they lower the market value of land; but as a practical matter it will mean closer scrutiny of strict regulations, especially their potential to "inordinately burden" landowners *even if* the court decides that a particular regulation is valid and in the overall public interest.

Whether a new regulation places an "inordinate burden" on a landowner will be determined by the courts on a case-by-case

basis. It is clear that the *amount* the market value of land may be lowered after a regulation is imposed will be a very important factor in this decision.

On Pine Island today, there is little market demand for residential development at densities of 1 DU/acre. A single new subdivision has been created at this density (Island Acres just south of the water treatment plant), and it has experienced relatively slow sales even though its lots surround an attractive lake. The actual real estate market for large tracts of Pine Island land has three major types of buyers:

- Intensive agriculture users, who are planting tropical fruits, ornamental palms, and some vegetables;
- Land speculators, who often anticipate selling at a profit to a developer who would build dwelling units around a golf course; and
- Public agencies, the new players in this market, at present primarily Lee County's "Conservation 2020" program which buys and preserves natural habitats.

These three types of buyers will establish the market value for large tracts on Pine Island in the absence of substantial demand for one-acre homesites.

Appendix B of this report evaluates five different growth-management techniques for rural land on Pine Island:

- Conservation land purchases
- Larger lots in rural areas
- Cluster development
- Transferable development rights
- Rate-of-growth control

Any of these techniques, or either of the two hybrid techniques also discussed in Appendix B, could become part of the Greater Pine Island community plan update and the Lee Plan's future land use map, and would be implemented through subsequent changes to other county regulations. (Existing lots would pre-

sumably be "grandfathered in" even if they are now vacant.)

The option recommended as the best for Greater Pine Island at this stage of its evolution is a hybrid described in Appendix B as "conservation clustering with incentives" (#7). It combines the best features of conservation land purchases (#1), larger lots in rural areas (#2), and cluster development (#3).

Land that is now designated "Rural" would be placed in a new "Coastal Rural" category. This conversion would respond well to the three main problems identified for Pine Island's rural areas:

- the absence of any meaningful effort to protect even the best remaining native habitats from agricultural clearing;
- the potential for residential development at 1 DU/acre that would result in neither "town" nor "country" conditions; and
- the potential for adding even more dwelling units that cannot be sustained by the limited road connections to the mainland.

This option combines regulations with incentives and uses a sliding scale of density to encourage (though not require) conservation of undisturbed habitats.

Property owners who save 70% of native habitats would be allowed to keep all of the dwelling units allowed to them today, but instead of placing each house on a 1-acre lot, these homes could be placed on the remaining 30% of the land. This would allocate 0.3 acres per lot (although actual lot sizes would be somewhat smaller to account for land needed for streets and stormwater detention lakes).

Property owners who choose *not* to save any native habitats would be limited to 1 DU per 10 acres. This would allow agricultural or country-estate homes on 10-acre lots.

A sliding scale would allow property owners to choose any point within the extremes just described, as shown in Table 4.

TABLE 4

Assume % of native land saved or restored	Would then be assigned this gross density:	RESULTS ON 100 ACRES WOULD BE:			
		# of DUs	acres used per lot	total acres preserved	total acres used
0%	1 DU per 10 acres	10	10.0 acres	0	100
5%	1 DU per 9 acres	11	8.6 acres	5	95
10%	1 DU per 8 acres	13	7.2 acres	10	90
15%	1 DU per 7 acres	14	6.0 acres	15	85
20%	1 DU per 6 acres	17	4.8 acres	20	80
30%	1 DU per 5 acres	20	3.5 acres	30	70
40%	1 DU per 4 acres	25	2.4 acres	40	60
50%	1 DU per 3 acres	33	1.5 acres	50	50
60%	1 DU per 2 acres	50	0.8 acres	60	40
70%	1 DU per 1 acre	100	0.3 acres	70	30

It may seem counterintuitive to allow higher densities on natural habitats than on disturbed lands, but this provides landowners with a strong incentive *not* to clear native habitats. (The same incentive would be granted to restored land as to preserved land, using the same sliding scale.)

This approach diminishes the potential for residential development on agricultural land while rewarding landowners who protect (or restore) their land's natural habitats. Actual development on native parcels would disturb far less land than would occur today by either allowing today's number of dwelling units to be placed on smaller lots, or by reducing the number of lots that are allowable. Public purchases of entire tracts for preservation would be encouraged, but if purchase offers aren't attractive enough to interest property owners, this new plan would encourage more preservation than current regulations.

SETTING THE COURSE

The culture of community-making demonstrated by Pine Island's pioneers should be continued by enhancing its seven freestanding communities and keeping them from sprawling into rural areas. Pine Island's rural areas should be placed into a new Coastal Rural category on the future land use map. This category would have a sliding density scale that would reward landowners who preserve native upland habitats. However, it would not prevent them from pursuing agriculture or creating standard ten-acre homesites if they choose. Without major habitat preservation, smaller homesites would not be allowed in Coastal Rural areas. (Existing legal lots in rural areas would not be affected.)

GETTING THERE

1. Adopt a new comprehensive plan policy as follows:
POLICY 14.1.8: The county shall reclassify all uplands on Pine Island previously designated as Rural to a new Coastal Rural designation on the Future Land Use Map. The purposes of this redesignation are to provide a clearer separation between rural and urban uses on Pine Island, to discourage the unnecessary destruction of native upland habitats, and to avoid placing more dwelling units on Pine Island than can be served by the limited road capacity to the mainland. The Coastal Rural designation is designed to provide landowners with maximum flexibility while accomplishing these public purposes.

(continued)

GETTING THERE *(continued)*

2. Adopt a new comprehensive plan policy establishing a new non-urban designation on the county's Future Land Use Map, as follows:

POLICY 1.4.7: The Coastal Rural areas are uplands on Pine Island that were redesignated in accordance with Policy 14.1.8. These lands are to remain rural except for portions of individual properties whose owners choose to permanently preserve or restore native upland habitats and in return are permitted to use a portion of their properties for smaller residential lots. The standard maximum density in the Coastal Rural area is one dwelling unit per ten acres (1 DU/10 acres). Maximum densities increase as various percentages of native uplands are permanently preserved or restored. Permitted land uses include agriculture, fill-dirt extraction, conservation uses, and residential uses up to the following densities:

<i>Percentage of native habitats preserved or restored</i>	<i>Maximum density</i>
0%	1 DU / 10 acres
5%	1 DU / 9 acres
10%	1 DU / 8 acres
15%	1 DU / 7 acres
20%	1 DU / 6 acres
30%	1 DU / 5 acres
40%	1 DU / 4 acres
50%	1 DU / 3 acres
60%	1 DU / 2 acres
70%	1 DU / 1 acre

(continued)

GETTING THERE *(continued)*

3. Amend the future land use map to reclassify all land on Pine Island now designated as "Rural" into the new "Coastal Rural" category.
4. Amend the future land use map to reclassify from "Outlying Suburban" to "Coastal Rural" 157 acres of agricultural land between Bokeelia and September Estates in 31-43-22, bounded by Quail Trail on the west, Barrancas Street on the north, Stringfellow on the east, Unit A of Rapid #1 subdivision (Cobb Road) on the north, the quarter section line of Section 31 on the east, and Pinehurst Acres and September Estates on the south.
5. Amend the land development code to provide detailed regulations to implement new Policies 1.4.7 and 14.1.8, including modifications to the AG-2 zoning district in accordance with these policies.

Population Summary

Initial data is beginning to be released by the U.S. Census Bureau from the 2000 census; a brief summary is provided here.

Greater Pine Island's population for many years has been much older than Lee County or the state of Florida as a whole, reflecting the continuing influx of retirees to the area. There are now 9,306 permanent residents of Greater Pine Island; the chart below illustrates the age breakdown of these permanent residents.

Of the 9,306 permanent residents, 98.3% percent are white and 3.7% are Hispanic.

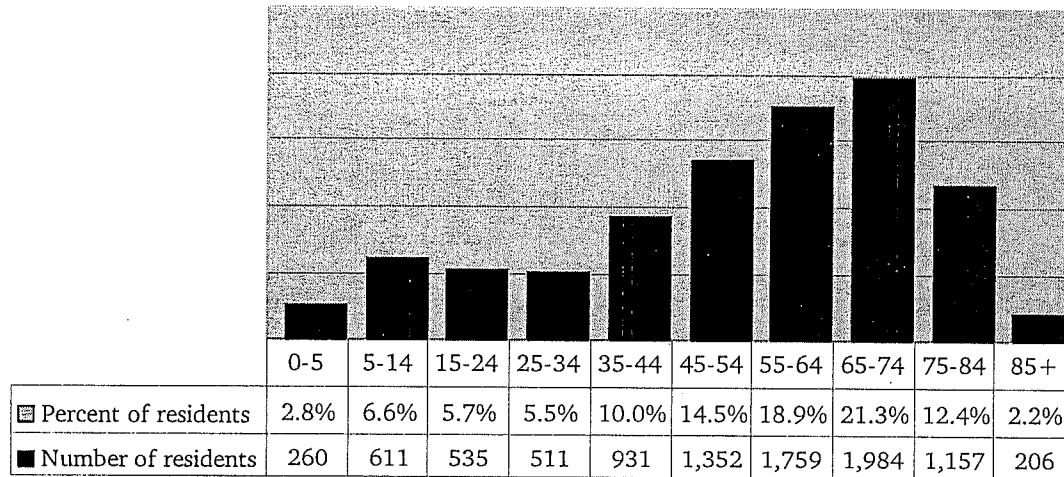
These 9,306 permanent residents live in 4,575 dwelling units. There are 1,766 additional dwelling units that were either used by seasonal residents or were vacant when the census was conducted on April 1, 2000. Compared to other islands in Lee County, Greater Pine Island has a much higher percentage of its dwelling units occupied by permanent residents. (The census does not include any meaningful data on seasonal residents.)

Of the 4,575 occupied dwelling units, 85.7% are occupied by their owners and the remaining 14.3% are rented out to others.

Additional data on the population and housing characteristics of Greater Pine Island is expected in the fall of 2001.

Age of Permanent Residents of Greater Pine Island

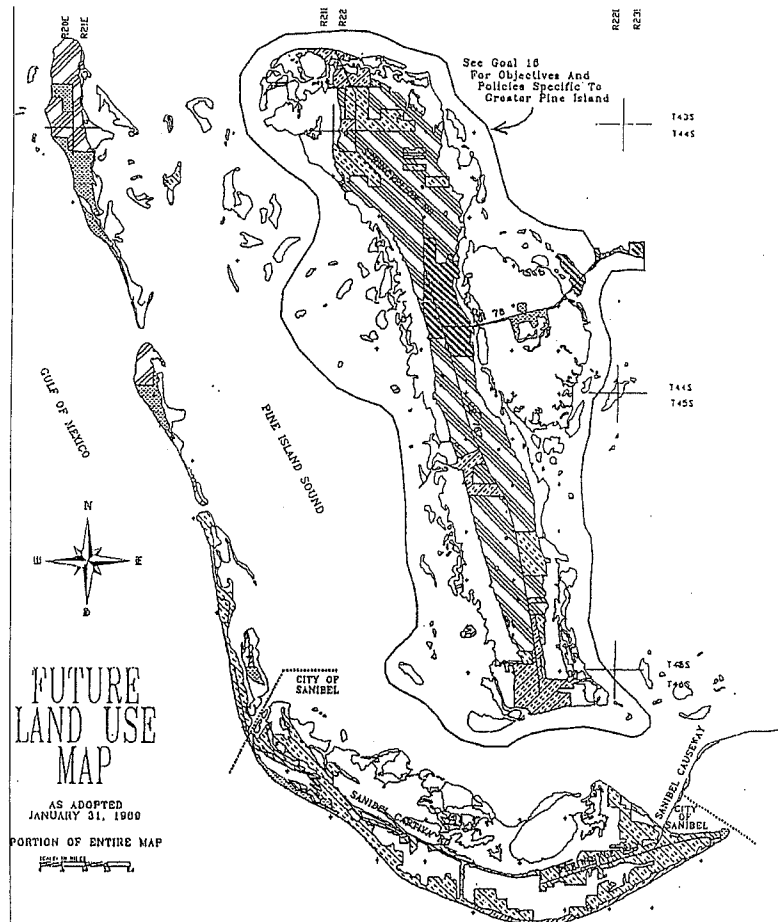
Year 2000, by Age Ranges



Greater Pine Island's Boundary

This plan has described Greater Pine Island as Pine Island, Little Pine Island, and Matlacha. A more precise boundary is needed for legal purposes.

The map below shows the original boundary adopted by Lee County in 1989 for the Greater Pine Island community plan.



Other Pine Island boundaries have been adopted for different purposes. Map 16 of the Lee Plan divides the entire county into twenty “planning communities” for administrative and accounting purposes; that Pine Island boundary includes some enclaves of unincorporated land between Matlacha Isles and the city limits of Cape Coral, including the Royal Tee Country Club. This is similar, though not identical, to the boundaries of the Matlacha/Pine Island Fire District and the Greater Pine Island Water Association, both of which however exclude Cabbage Key and Useppa and treat other small islands differently.

The original community plan boundary from 1989 also excludes Cabbage Key and Useppa, plus all of the unincorporated land east of Matlacha Isles. During the course of this plan update, only the areas within the original boundary were analyzed carefully. Thus the plan update, when adopted, should apply only to the original area. The Lee Plan should prominently display this boundary on the future land use map and/or a separate map depicting Greater Pine Island and all other areas that are subject to community plans.

GETTING THERE

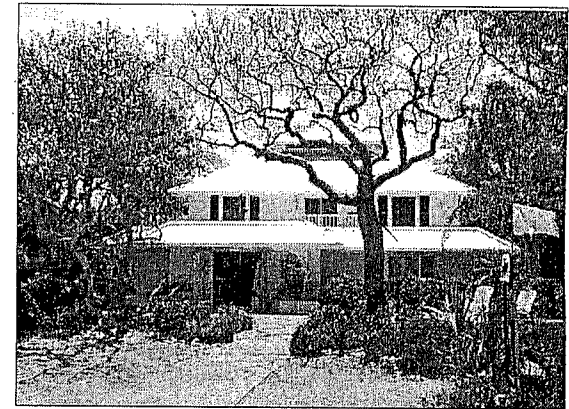
Modify the future land use map to clearly reflect the 1989 boundary for Greater Pine Island, which includes Pine Island, Little Pine Island, and Matlacha eastward through Matlacha Isles.



Tropical Island Wear & Moretti's, Matlacha



Waterfront Restaurant, St. James City



Crossed Palms Gallery, Bokeelia

COMMUNITY CHARACTER

Design of Commercial Buildings

Businesses are an essential part of any community's character. They provide useful services and their buildings are usually located on major roads where they are regularly viewed by residents and visitors.

Pine Island has many commercial buildings that are strictly utilitarian, and others that are simply unsightly. However, there are also many wonderful examples of commercial buildings that help maintain the rural and small-town ambience of Pine Island. Some are old, some completely renovated, and some entirely new, but they usually are designed in the "Old Florida" or vernacular style and can serve as desirable examples for future commercial buildings on Pine Island. Photographs of some of those buildings are included here.

In late 1998, Lee County for the first time adopted design standards for commercial buildings. These standards are fairly minimal and do not govern the style of buildings, nor the placement of buildings on the site. However, they can be adapted to

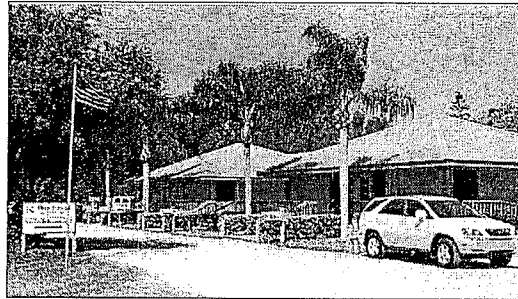
incorporate either or both for commercial buildings on Pine Island.

The following list identifies general characteristics of the best commercial buildings on Pine Island, and compares them with some common trends elsewhere:

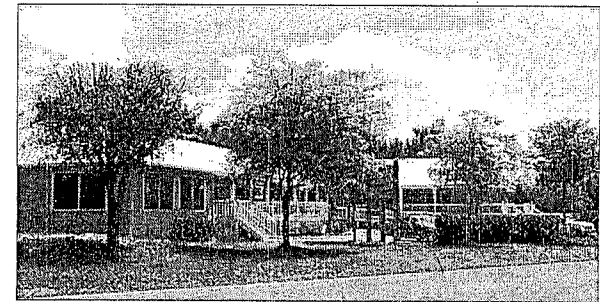
- Existing buildings are often converted to commercial use, rather than demolished and replaced.
- The buildings are relatively small; some could be mistaken for a large residence.
- There is little or no parking between the building and the street; parking lots tend to be on the side, or behind the building.
- Mature trees are considered assets on commercial sites, rather than obstacles to be removed.
- Glass is plentiful on the fronts of buildings; blank walls are rare even on the sides or the rear.
- Galvanized sheet metal is the most common roof material.
- Building styles are traditional, usually "Old Florida" style, but with many creative details — they are never identical formula buildings that might appear anywhere.



Pine Island Prof. Center, Pine Island Center



Pine Island Reaty, Pine Island Center



Island Exchange, Pine Island Center

For the most part Greater Pine Island has avoided lookalike franchise architecture where repetitive building types function as giant billboards.

The city of Sanibel has tried a novel approach at controlling lookalike architecture by banning what they have defined as “formula restaurants.” Their definition includes any restaurant that meets two of these three criteria: any fast-food restaurant; uses the same name as others in a chain or group; and uses exterior designs or employee uniforms that are standardized.

The Sanibel rule affects only restaurants, not any other commercial establishments. Also, many chains *are* willing to modify their standard designs or to build customized buildings, if clearly required by local law. By adopting specific commercial design standards for Pine Island, greater control can be obtained over out-of-character buildings without involving county government with issues of competition, corporate structure, or similarity to other businesses. These issues are outside the county’s normal scope of review anyway.

SETTING THE COURSE

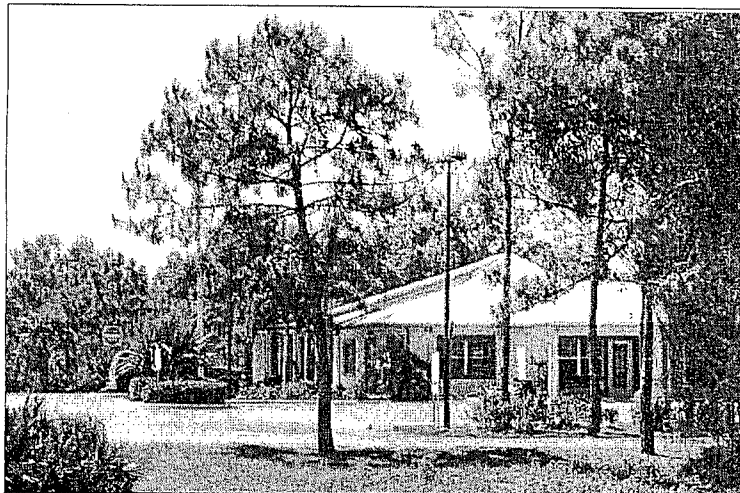
Lee County’s new architectural standards are a major step forward but should be supplemented with specific standards for Pine Island. These standards should favor rehabilitation over demolition; small rather than large buildings; custom designs instead of standardized franchise buildings; preservation of mature trees; parking to the side and rear; large windows and no blank walls; and metal roofs and other features of traditional “Old Florida” styles.

GETTING THERE

1. Adopt a new comprehensive plan policy as follows:
POLICY 14.4.3: The county shall expand the commercial design standards in its land development code to provide specific architectural and site design standards for Greater Pine Island. These standards will favor rehabilitation over demolition; require smaller rather than larger buildings; avoid standardized franchise buildings; preserve mature trees wherever possible; place most parking to the side and rear; require large windows and forbid most blank walls; and encourage metal roofs and other features of traditional “Old Florida” styles.
2. Modify the county’s land development code to implement new Policy 14.4.3 by incorporating measurable commercial design standards for new buildings and major renovations on Greater Pine Island.



Century 21 – Sunbelt #1 Realty, Matlacha



SouthTrust Bank, Pine Island Center

Bike Paths

After many years of effort by determined Pine Islanders, an extensive bike path is now in place along Stringfellow Road. The first asphalt segment was built from Barrancas Avenue to Main Street in Bokeelia in the 1980s. A much longer concrete segment was completed recently from the Monroe Canal in St. James City all the way to Pine Island Road. This project was built by Lee County and Florida DOT with a combination of local and federal funds and with easements donated by landowners.

These paths serve both pedestrians and bicyclists along stretches of Stringfellow Road where high speeds and deep swales had made walking or bicycling nearly impossible. These paths serve recreational users and also provide critical links between Pine Island's communities. These connections are increasingly important due to the influx of migrant workers whose bicycles are often their sole means of transportation, yet they must travel on a road that was designed only for high-speed traffic.

There are no bike paths or sidewalks at the northern or southern tips of Pine Island. Paved shoulders are used by pedestrians and bicyclists from Monroe Canal south through the commercial district of St. James City. Further to the south, and again in Bokeelia, the narrow pavement is shared by cars, trucks, pedestrians, and bicyclists. This situation has been acceptable for many years due to low traffic speeds; however, traffic levels during recent winter seasons are making this practice unsafe.

From Pine Island Road north to Barrancas Avenue, it is still extremely difficult and dangerous for pedestrians or bicyclists to move along Stringfellow Road. This is the most important "missing link" in the system, and is next in Lee County's plans for improvements. Construction is underway on another 1.5-mile segment from the Grab Bag store to just north of Pink Citrus. In March 2001, the commission approved another 1.8-mile segment from Pine Island Road to Marina Drive, with

construction expected in 2002.

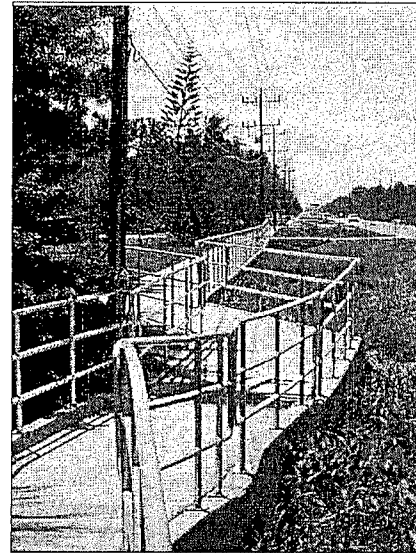
Both segments had been delayed because some property owners have not been willing to donate easements along their property. Because the right-of-way is so narrow, construction of this path requires these easements or expensive reconstruction of the drainage system to move the swales or to route stormwater through underground pipes. The same problem on the remaining segments has greatly hindered efforts to extend the bike path further.

Much of the southern portion of the path was built along a wider right-of-way, avoiding some of these difficulties. Still, there were many conflicts with drainage swales and power poles, some of which were resolved with expensive railings and concrete walls. Some parts of the bike path were routed around every power pole rather than moving the row of poles because of cost concerns expressed by the power company.

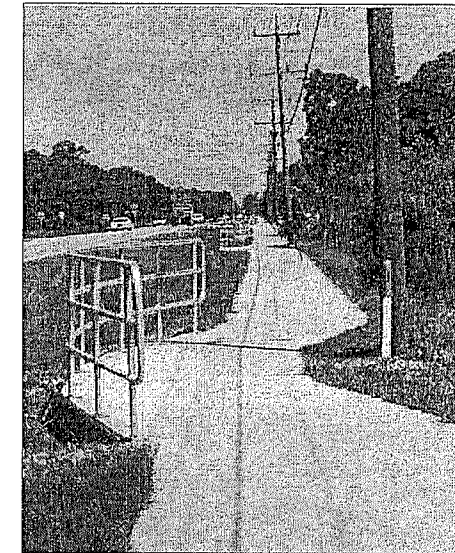
The final stages of the bike path will be even more difficult to construct, yet it should be considered an important public amenity whose looks and functionality are of equal concern.

To complete this path, it might even be necessary to purchase a few missing easements, or go to the expense of underground drainage or moving power poles. It may even require off-site drainage improvements where swales must be covered to accommodate the path. These costs might delay the project further, but its long-term completion and excellence should remain a critical goal for all Pine Islanders.

Landscaping in strategic locations could soften some of the utilitarian look of existing portions of the path, and curbs can be installed where the path unavoidably adjoins the roadway. In the future, additional paths might be designated along parallel streets to improve the usefulness and variety of the bike path.



Better design could avoid needless jogs



The result of moving the path rather than moving the poles

SETTING THE COURSE

Lee County is to be congratulated for its success in building a bike path along major portions of Stringfellow Road. Completing this path across the entire length of Pine Island should continue to be a very high priority of all Pine Islanders.

GETTING THERE

Adopt a new comprehensive plan policy as follows:

POLICY 14.2.4: The county shall make every effort to continue extending the bicycle path to run the entire length of Stringfellow Road. Wherever possible, this path should be designed as a major public amenity, not as an afterthought. Where needed to provide a high-quality bicycle path, power poles and swales should be relocated to avoid unnecessary jogs in the bike path.

Fences and Walls

Fences and walls serve many purposes; depending on their design and placement, they can be a character-enhancing part of a community or a divider of neighbors and neighborhoods.

Short fences or walls (less than 3 or 4 feet tall) are typically used in front yards to demarcate the fully public space in the right-of-way from semi-private front yards. These spaces together make up the public realm – the common visual space that forms much of a community's character.

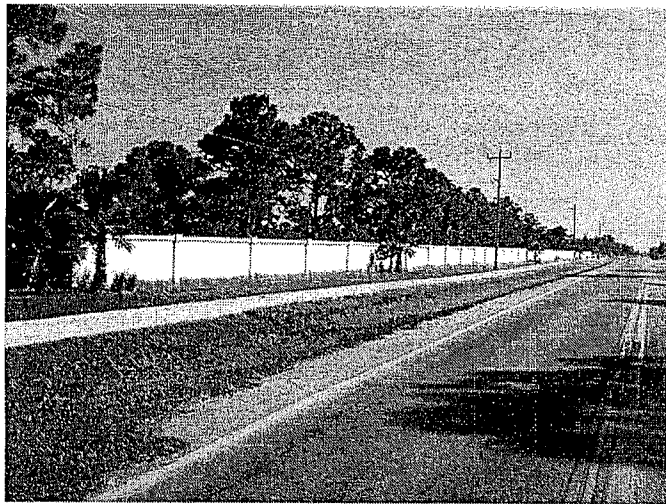
Unlike fences in the public realm, back yards and rear portions of side yards can have taller fences or walls, typically 6 feet tall, to provide almost total privacy.

Pine Island has managed to avoid the modern trend of new neighborhoods with a single main entrance blocked by a security gate, and with a perimeter wall that blocks all other access, even for those traveling on foot. Most neighborhoods on Pine Island have more than one street connection (although

water bodies and wetlands sometimes make a single entrance unavoidable). Even Alden Pines, Pine Island's only golf course community, has a street that runs all the way through, integrating it fully with the surrounding neighborhoods. The new Island Acres subdivision, however, follows the modern trend and has a single gated entrance and a perimeter wall.

Lee County's development regulations restrict fences or walls to 4 feet high in front yards and 6 feet high behind and along the sides of houses, in the traditional manner. Yet these same regulations allow a 8-foot-high "backyard-style" wall to surround an entire neighborhood, even along public streets. County regulations also permit subdivisions with private streets to be gated with very few restrictions, even where they will interfere with normal circulation patterns.

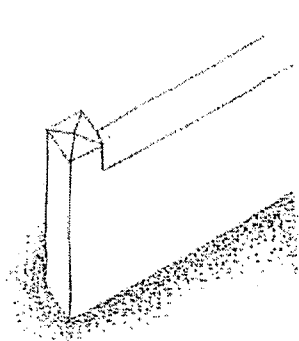
Although Pine Island is unlikely to see many entirely new subdivisions, it is reasonable for those that are approved to be built in the traditional manner, with an interconnected street network and without perimeter walls or gates.



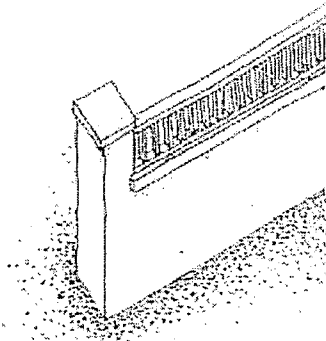
High wall surrounding Island Acres subdivision, south of P.I. Center



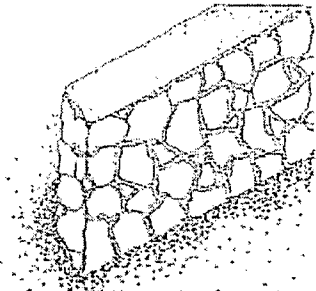
Typical Pine Island roadside south of Pine Island Center



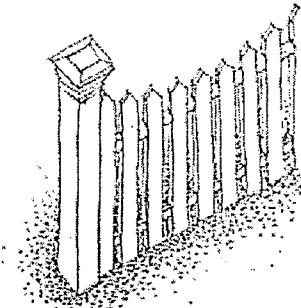
Concrete with stucco



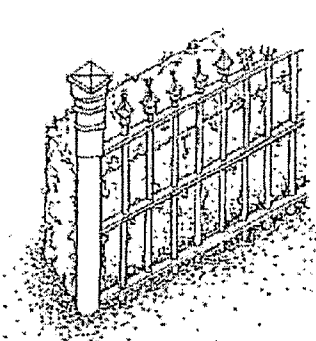
Concrete, stucco & wood



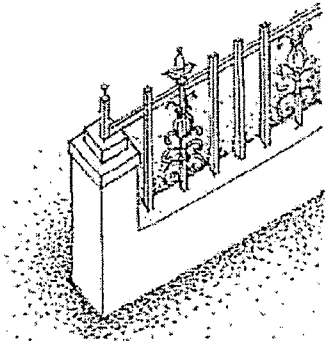
Rock or Stone



Wood



Wrought/Cast Iron and Hedge



Concrete & Cast Iron

Low fence and wall styles that are desirable along streets

SETTING THE COURSE

Isolated gated communities and walled compounds are not consistent with the traditional neighborhood character of Pine Island. Any new neighborhoods should be connected to their surroundings at several points rather than being isolated. Perimeter fences, walls, and gates, if allowed at all, should be limited to individual blocks or small portions of neighborhoods.

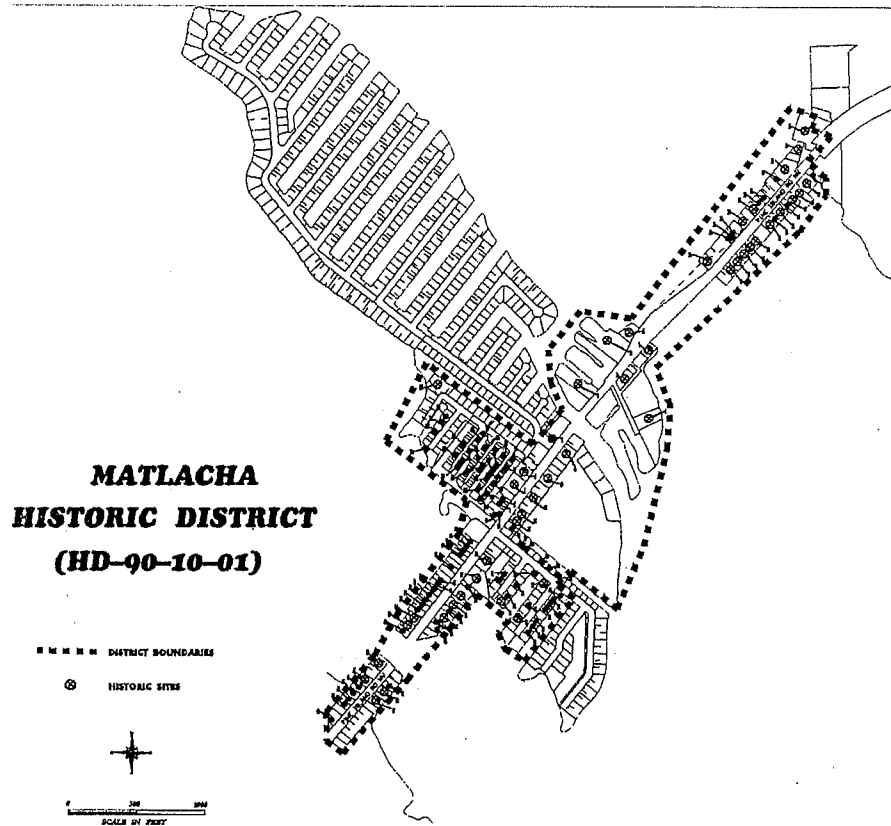
GETTING THERE

- A. Adopt a new comprehensive plan policy as follows:
POLICY 14.3.5: The county shall amend its land development code to provide specific regulations for neighborhood connectivity and walls and gates on Greater Pine Island. These regulations would require interconnections between adjoining neighborhoods wherever feasible and would no longer allow perimeter walls around larger developments.
- B. Modify the county's land development code to implement new Policy 14.3.5 by defining the new neighborhood connection requirements and revising the fence and wall regulations for Greater Pine Island.

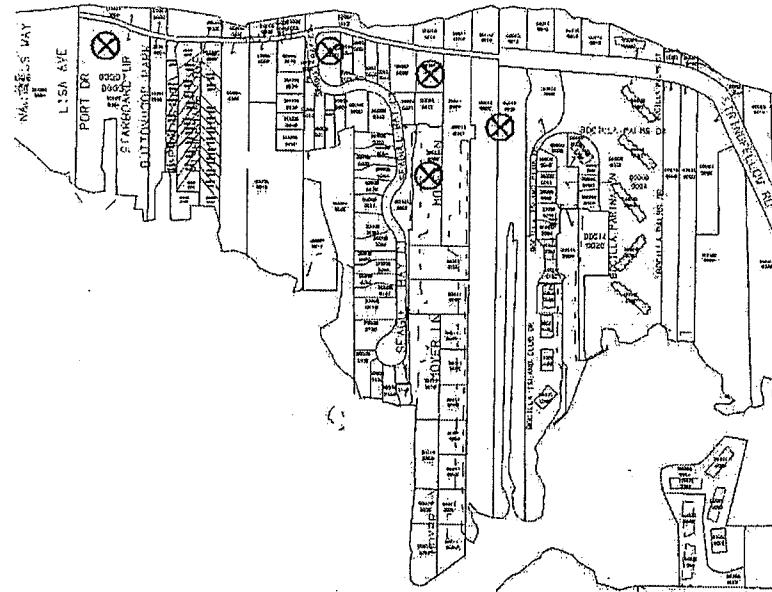
Historic Buildings

Lee County has formally designated two historic districts on Greater Pine Island. The largest district includes about 45 buildings in Matlacha; most of which are located directly on Pine Island Road. A small district has also been designated in Bokeelia that includes five properties with historic buildings. The maps below indicate these historic buildings and the Matlacha district boundary.

Potentially historic buildings on Greater Pine Island were originally identified in a historic survey conducted by Lee County in 1986. This survey identified 67 buildings of historic interest on Pine Island, generally those over 50 years old. Concentrations of these buildings were identified in Matlacha (30 buildings), Bokeelia (12 buildings), Pineland (7 buildings), and St. James City (18 buildings).



Designated historic district in Matlacha



Designated historic buildings in Bokeelia

All 67 buildings have been added to the Florida Master Site File, a statewide inventory that is maintained by the Florida Department of State. This file is just a database; listing does not imply any particular level of significance, or eligibility for the National Register of Historic Places or formal designation by Lee County.

Formal local historic designations are made in the unincorporated area by the Lee County Historic Preservation Board. Local designations qualify property owners for special incentives for upgrading their property, and require a review before improvements are made to assess their impacts on the historic value of the building.

While Lee County's 1986 historic survey was thorough, some buildings were undoubtedly missed or improperly identified, while others have been destroyed or extensively modified. As time passes, other buildings become eligible for listing as they become fifty years old. The state provides grants to have these surveys updated, although such requests require 50% matching funds and must compete with other worthy requests from across the state. An update of the Pine Island survey would provide the basis for formally designating historic buildings in St. James City and Pineland, and possibly more buildings in Bokeelia. It may also identify buildings or districts that have become eligible for the National Register of Historic Places.

The official designation of more of Pine Island's historic buildings would bring greater attention to their significance, building pride in maintaining them while enhancing the surrounding community. Owners of historic buildings often find the incentives that come with designation to be critical in being able to improve their properties, which modern codes often consider to be obsolete rather than in need of special consideration.

SETTING THE COURSE

The historic districts in Matlacha and Bokeelia have successfully protected the strong sense of place in both communities. Lee County should expand this program to include individual sites and concentrations of historic buildings in St. James City and Pineland.

GETTING THERE

Adopt a new comprehensive plan policy as follows.

POLICY 14.5.4: The county shall update its historic sites survey of Greater Pine Island if an update is determined to be needed. The county shall consider formal local designation of additional historic buildings, especially in St. James City, Pineland, and Bokeelia, and shall identify potential buildings or districts for the National Register of Historic Places.

Cap on Building Heights

At the urging of Pine Islanders, the Lee County Commission in 1977 declared Greater Pine Island as unique in scenic beauty and geography and adopted the first meaningful limitation on building heights. No buildings taller than 38 feet above ground could be built on Greater Pine Island, other than an unexplained exception for industrial buildings.⁵

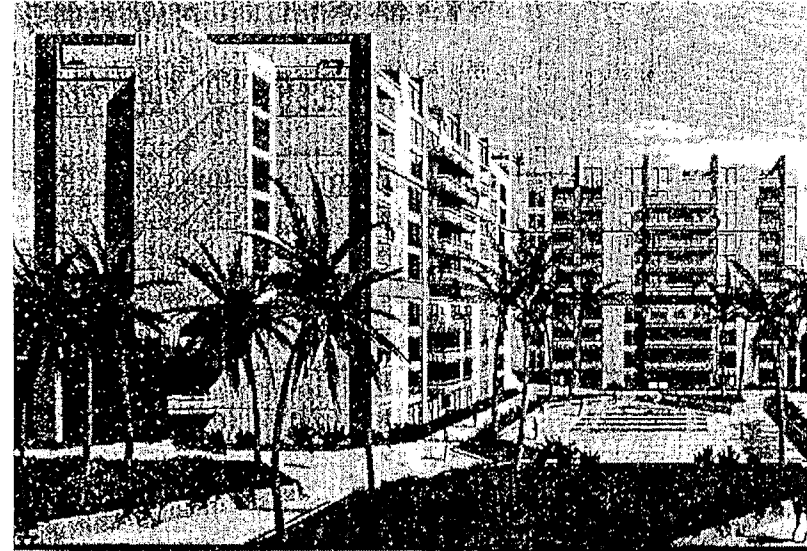
This height limit has been fiercely protected since that time because the lack of mid-rise or high-rise buildings is a strong character-defining element for a Florida coastal island. (Figure 3 shows a 1973 proposal—never built—for an out-of-scale condominium just north of St. James City.)

As extra protection, this height limit was added into the Pine Island section of Lee County's comprehensive plan, initially in 1989 just by committing to retain the existing code provisions, then in 1994 with the following more specific language:

POLICY 14.3.3: *The county's zoning regulations shall continue to state that no building or structure on Greater Pine Island shall be erected or altered so that the peak of the roof exceeds thirty-eight (38) feet above the average grade of the lot in question, or forty-five (45) feet above mean sea level, whichever is the lower.*

Despite this clear language, there is continuing concern among Pine Islanders that the building height cap might be misinter-

⁵ Lee County Ordinance 77-15, amended by 78-19, and 80-20; later codified into Lee County's land development code at section 34-2175: "Height limitations for special areas. The following areas have special maximum height limitations as listed in this section: ... (5) Greater Pine Island. No building or structure shall be erected or altered so that the peak of the roof exceeds 38 feet above the average grade of the lot in question or 45 feet above mean sea level, whichever is lower. The term "building or structure," as used in this subsection, shall not include a building or structure used for an industrial purpose."



Pine Island Highrise

Pine Island's first highrise condominium project is St. Jude Estates, on a parcel lying between Springfellow Boulevard and Long John Silver Canal just north of St. James City at St. Jude Harbor. The 244 apartments will be in an L-shaped

10-story structure. Also proposed is a two story building facing the highway for convenience-type stores and shops. Earlier this month permits for \$4.1 million worth of construction were issued by the Lee County Building Department. Developer of the proposed project is Joseph A. Leone Jr. of Lawrence, Mass. The St. Jude Estates project is expected to cost about \$10 million.

Figure 3

preted, overlooked, or evaded through variances.

This cap might be misinterpreted because it measures building height from *ground level* and *sea level*, while in the rest of coastal Lee County, building heights are measured from the minimum flood level (the height above which all new homes must be elevated, which varies across the island from 8 feet to 11 feet above sea level).

This cap might also be overlooked by a new permit reviewer or by one not familiar with this one clause in an extremely long land development code. Another possibility is that one of the exceptions that Lee County allows to other height regulations might be incorrectly applied to Pine Island; or variances might be granted to this regulation without a showing of "exceptional

or extraordinary conditions,” which are legally required for variances.

Policy 14.3.3 now simply describes the Pine Island height regulations and forbids its repeal from the county’s land development code. Stronger approaches can be considered to guarantee the continued success of this cap.

One stronger approach is to place the height restriction directly into Policy 14.3.3 (instead of by reference to the zoning regulations). If this change were made, it would become impossible for variances ever to be granted, because no variance can legally be granted to any comprehensive plan requirement. This is appealing, given the prevailing fear of careless granting of variances; however, it is fraught with danger because there may be some unusual situation where a variance *should* be granted. In that case, the only alternative will be to permanently change the rule, rather than allowing an exception in that single instance.

A better approach is to modify the current wording of Policy 14.3.3 to specifically disallow certain incorrect interpretations on building heights. For instance, the policy could forbid any “deviations” from this height restriction (deviations can now be granted *without* the showing of exceptional or extraordinary conditions, as is required for a variance). The policy could also explicitly forbid the substitution of flood elevations as the starting point for measuring height [see LDC § 34-2171], and could forbid increases in building heights in exchange for increased setbacks, an acceptable practice elsewhere in Lee County [see LDC § 34-2174].

These new prohibitions, plus the elimination of the exception for industrial buildings, would cement Greater Pine Island’s historic height regulations while still allowing the possibility of a variance in extreme circumstances.

SETTING THE COURSE

Building heights on Greater Pine Island have been carefully restricted since 1977. These restrictions have protected the community’s character and must be maintained. Potential loopholes should immediately be closed.

GETTING THERE

1. Modify comprehensive plan Policy 14.3.3 as follows:
POLICY 14.3.3: The land development code county's zoning regulations shall continue to state that no building or structure on Greater Pine Island shall be erected or altered so that the peak of the roof exceeds thirty-eight (38) feet above the average grade of the lot in question, or forty-five (45) feet above mean sea level, whichever is the lower. No deviations from these height restrictions may be granted through the planned development process. These height restrictions shall not be measured from minimum flood elevations nor shall increases in building height be allowed in exchange for increased setbacks. Industrial buildings must also comply with these height restrictions.
2. Amend the land development code to specifically include the new restrictions added to Policy 14.3.3.

Business Signs

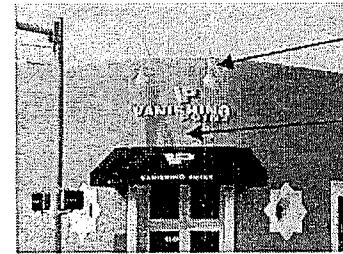
Signs on Pine Island are controlled by general Lee County regulations. At present, only Captiva has separate regulations. For many years the county's regulations were extremely lenient, resulting in some oversized signs that remain standing today.

For new signs, the current regulations encourage signs to be freestanding, either mounted on poles or placed directly on the ground. Large pole and ground signs, however, are more appropriate for suburban strips where commercial buildings are set far back from the road.

Where most motorists drive the roads regularly, as on Pine Island, business signs need not be as large as they would be on a major highway like US 41. When buildings are nearer the road, as promoted by this plan, a better location for signs is directly on the wall of the building. Thus, regulations for business signs on Pine Island could be improved as follows:

- The regulations could limit pole and ground signs to sizes smaller than are needed on major highways.
- The regulations could encourage signs to be wall-mounted or to project out from a building, for instance on awnings, and to be made up of individual letters, rather than using internally lit plastic box signs that are out of character on Pine Island.
- Wall signs are now forbidden when buildings are within 15 feet of a right-of-way (common in Matlacha), yet walls are the most appropriate location for signs there.

In contrast to business identification signs, current regulations classify billboards as "off-premises" signs. New billboards are not allowed on Greater Pine Island. This is important because billboards are needless advertising that blights the scenic beauty of Greater Pine Island. However, some older billboards have been used on Pine Island as "directional signs" that direct travel-



External lighting

Sign is centered above the main entrance at the top of the facade

Sign painted directly on the facade above the main entrance

External lighting discreetly located above the awning



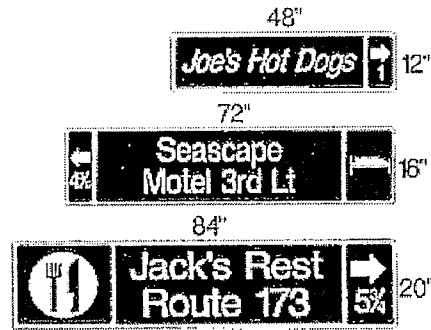
Internally lit box signs of plastic and/or metal are designed for commercial strips

ers to businesses that aren't visible.

Lee County regulations currently allow new directional signs only for residential subdivisions and for nonprofit groups, but never for businesses. Pine Island has only a single north-south road. Businesses such as marinas and groves that are located on other streets are not allowed to have a small sign on String-fellow showing motorists where to turn.

The state of Maine has developed a program for this situation that could be a model for Pine Island and other locations where some businesses are otherwise "invisible." Businesses can purchase a small roadside sign using a common format that the

state then installs at safe locations in the right-of-way just before motorists must turn. The illustration to the right shows Maine's standard sign sizes. Municipalities can also contract with the state to use a distinctive theme for their community.



A similar program tailored to Pine Island's needs and perhaps having a common artistic character could help the public locate individual businesses while continuing the prohibition on billboards.

SETTING THE COURSE

Lee County's sign regulations should be supplemented with specific standards that match the rural character of Greater Pine Island. These rules would encourage smaller signs on businesses, discourage signs typically found on commercial strips such as U.S. 41, allow small directional signs for businesses not visible from Stringfellow Road, and continue to ban billboards.

GETTING THERE

- Adopt a new comprehensive plan policy as follows:
POLICY 14.4.4: The county shall expand its current sign regulations to include specific standards for Greater Pine Island. These standards will reduce the size of ground-mounted signs, discourage or disallow internally lit box signs, allow wall signs on buildings near the right-of-way, and allow small directional signs on Stringfellow Road for businesses not visible from the road.
- Modify the county's land development code to implement new Policy 14.4.4 by incorporating new sign standards for Greater Pine Island.

County-initiated Rezoning

Property being developed must comply with its current zoning district *and* with the Lee Plan. In some cases, a property's zoning district has become obsolete due to changes in the Lee Plan. For instance, property that may have been zoned for a subdivision decades ago can no longer be developed at all because it is a protected mangrove forest.

More commonly, land with zoning that seemingly allows either commercial and residential uses cannot be developed commercially, or as intensely, due to specific policies in the Lee Plan. A 1989 Lee County study identified over 600 acres of land on Greater Pine Island whose zoning allows at least some commercial uses, whereas the Lee Plan will only allow the development of only a fraction of that amount.

Despite the legal requirements for compliance with both zoning and the Lee Plan, investors sometimes purchase land based only on its zoning. Lee County should methodically eliminate zoning that no longer reflects uses that are permissible on land. This is a difficult undertaking that has been largely put off since the adoption of the original Lee Plan in 1984.

SETTING THE COURSE

Lee County should methodically eliminate zoning classifications that will create false development expectations for potential investors.

GETTING THERE

- Adopt a new comprehensive plan policy as follows:
POLICY 14.4.5: The county shall establish a prioritized schedule for a five-year effort to rezone land to zoning districts that properly reflect its development potential under the Lee Plan.
- Begin the process of rezoning improperly zoned land on Greater Pine Island.

Pine Island – a Vision for 2020

Beginning in 1999, Lee County's comprehensive plan has included a brief "vision statement" for each of twenty segments of unincorporated Lee County. The Pine Island segment is worded as follows:

Pine Island – *This community includes the major islands of Pine Island, Little Pine Island, and Matlacha, the surrounding smaller islands, and the previously mentioned enclaves in the City of Cape Coral. This community has an overall identity of Pine Island; however, there are four sub community centers within the overall community. The four areas within the Pine Island Community are: Bokeelia at the northern tip, St. James City at the southern tip of the island, and Matlacha which is a small island between the mainland and Pine Island. The Pine Island community is similar to the other island communities in that the residents leave the islands to satisfy many of their commercial needs. However, unlike the other island communities, Pine Island does not have a substantial amount of tourist oriented commercial. Since the Pine Island community does not contain the gulf front beaches the other island communities have, this is not expected to change during the life of the plan. This community will add a small amount of new commercial by 2020 to meet the daily needs of residents; however, Pine Island community residents will still satisfy most of their commercial needs outside of their community. The population of this community will also grow from 8,400 permanent residents in 1996 to approximately 9,700 residents in 2020 and a total seasonal population of nearly 15,000. Pine Island is also different from the other island communities in that it has a much higher percentage of non-seasonal residents.*

This language focuses on commercial development and expected growth almost to the exclusion of any meaningful vision of Pine Island's future.

The Lee County plan would be better served by replacing the current language with a succinct summary of the vision that Pine Islanders have articulated through this plan update.

SETTING THE COURSE

Pine Islanders have articulated their own vision for the future of Greater Pine Island through this comprehensive plan update; a summary of this vision should be placed in the opening chapter of Lee County's comprehensive plan.

GETTING THERE

In the "Vision for 2020" section of the Lee Plan, replace the current language for the Pine Island planning community with the following description (summarized from this plan update): **Pine Island – This community includes Greater Pine Island as described under Goal 14 along with surrounding smaller islands and some unincorporated enclaves near Cape Coral. Its future, as seen by Pine Islanders, will be a matter of maintaining an equilibrium between modest growth on the one hand and a fragile ecology on the other. Pine Island will continue to be a haven between urban sprawl approaching from the mainland and the wealth of the outer islands; a quiet place of family businesses, school children, and retirees enjoying the bounties of nature; a place devoid of high-rises, strip malls, and gated communities. Traffic constraints caused by the narrow road link to the mainland will limit future development, allowing the islands to evacuate from storms and protecting natural lands from unsustainable development. Wildlife and native vegetation will be protected; loss of wildlife habitat will be reversed; sidewalks and bike paths will connect neighborhoods for young and old alike. Architectural standards for commercial buildings will encourage "Old Florida" styles, and historic buildings will be treasured. Pine Island will continue to be a place where people and nature exist in harmony, a place not very different from what it is today, an island as state-of-mind as much as a physical entity, its best features preserved and enhanced. Pine Islanders are historically vigilant about protecting their community and will work to ensure that their plans are carried out.**

Municipal Incorporation

Florida law allows individual communities to “incorporate” to form their own city. New cities remain under the control of county governments for many functions but can independently provide certain services, including planning and zoning. (Cities can also choose to call themselves towns or villages.)

Since 1995, both Fort Myers Beach and Bonita Springs have incorporated. The large tax bases in those communities have been able to support city governments without additional taxes. However, in communities without such high property values, a city government would require higher property taxes.

The legislature has erected various hurdles to discourage a proliferation of new cities:⁶

- A population density of 1.5 persons per acre is normally required, as well as a total permanent population of 5,000.
- There must be 2 miles or “an extraordinary natural boundary” between the new city and an existing city.
- A formal feasibility study must demonstrate the fiscal capacity of the proposed city. In order to qualify for important state revenue-sharing, the new city must impose at least 3.0 mills of property taxation,⁷ whereas Lee County now charges only 1.2 mills for municipal services. (Fort Myers Beach and Bonita Springs have gotten around this requirement by convincing the legislature to count the property taxes now being imposed by their independent fire districts as part of this 3.0 mills.)
- A special act of the legislature is required even when all of these requirements have been met, followed by a referendum of voters in the affected area.

City governments tend to become expensive, not just because some duplication of services is inevitable, but because an effec-

⁶ Chapter 165, *Florida Statutes*

⁷ Section 218.23, *Florida Statutes*

tive city government will tackle problems that citizens wouldn’t entrust to more distant levels of government. However, “minimum cities” are becoming a trend; instead of employing large staffs, they contract with outside service providers and allow county government to provide many traditional services.

If Greater Pine Island were to incorporate as a city, it would likely leave the water association and fire department as independent entities. Law enforcement, operation of the sewer plant, emergency management, building permits, and zoning enforcement could be contracted back to Lee County. However, planning and zoning decisions would almost certainly be made by the new government, and additional services could be provided as needs arise.

Municipal incorporation isn’t inherently good or bad. Pine Islanders should assume that taxes would have to be raised to support a city government (a revenue analysis could assess the likely costs), and this fact would make it somewhat difficult for a referendum to succeed. Other costs to be considered are the divisiveness of most incorporation efforts (Captiva’s experience in the past year is cautionary), and the potential costs of hurricane recovery plus litigation to defend land-use decisions.

On the positive side, Pine Islanders face many distinctive issues that the current Lee County government finds to be outside its “core mission” — issues which Pine Islanders would gladly involve themselves, given the proper forum. Greater Pine Island has a strong history of civic activism and a core of retired citizens who could devote a great deal of attention to municipal matters.

Thus discussion of incorporation can be expected on a regular basis. If Lee County is responsive to Pine Island issues, incorporation may never appeal to enough citizens to justify the costs. However, incorporation always remains an alternative to governance by the county commission.

THE ENVIRONMENT

Protecting the Aquatic Preserves from Runoff

The current Pine Island plan requires a buffer area between new developments and aquatic preserves:

POLICY 14.1.5: *New "planned development" rezoning approvals and new subdivisions adjoining state-designated aquatic preserves and associated natural tributaries shall provide a 50-foot-wide vegetated buffer area between the development and the waterbody.*

Buffer areas of this type save a strip of native vegetation along the transitional zone between water (or wetlands) and uplands. With proper design, this strip can prevent erosion and trap sediments and other pollutants running off the land, in addition to its original functions.⁸

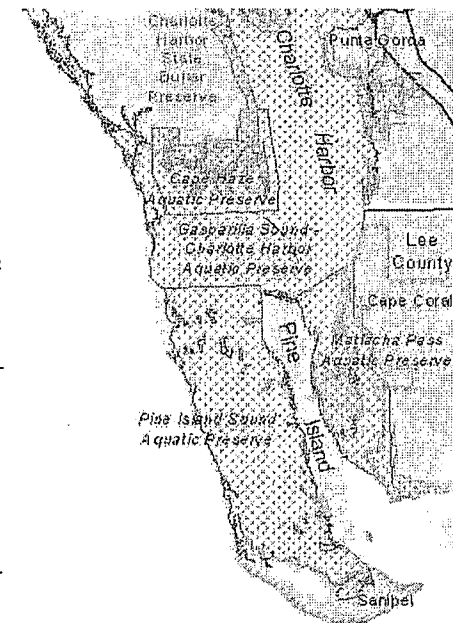
Such buffers are especially valuable on Pine Island because the island is surrounded by aquatic preserves. These preserves were designated by the state in the 1970s for their "exceptional biological, aesthetic, and scientific value" and are "set aside

⁸ "Lands immediately adjacent to an upland or wetland are transition zones between wetlands and uplands. They are zones that are wetland at times and upland at times, exhibiting characteristics of each and vegetated by species that are found in each. They are important to both the wetland and the upland as seed reservoirs, as habitat for aquatic and wetland-dependent wildlife species, as refuges to wildlife species during high-water events, and as buffers to the extreme environmental conditions that result from sharp vegetated edges. When development activities occur in transition zones, wetland-dependent wildlife species that are frequent users of these areas are excluded, silt laden surface waters are generated and cannot be filtered, and groundwater may be diverted or drained." M.T. Brown and J. Orell, *Tomoka River and Spruce Creek Riparian Habitat Protection Zone*, p. 4 (St. Johns River Water Management District, 1995).

forever...for the benefit of future generations."⁹

A major management goal for aquatic preserves is to encourage uses of adjacent uplands that protect and enhance the resources in the aquatic preserves.

Policy 14.1.5 has been incorporated by Lee County into its land development code.¹⁰ However, as currently worded, it has proven ineffective because it does not apply to agriculture, the predominant new land use on Pine Island over the past decade.



⁹ Section 258.36, *Florida Statutes*

¹⁰ This policy has been implemented through Lee County's land development code as shown in these excerpts:

Sec. 34-935(d) Where the proposed planned development is within the Greater Pine Island area and adjoins state-designated aquatic preserves or associated natural tributaries, a 50-foot-wide vegetated buffer area between any structure or building and the mean high-water line of the water body shall be provided. No deviation from this requirement shall be permitted except under extreme circumstances in which the requirement would have the effect of prohibiting all reasonable use of the property.

Sec. 10-414(f) Except where a stricter standard applies for the Greater Pine Island Area (defined in chapter 34 of the land development code), there must be a 25-foot wide buffer landward from the mean high water line of all nonseawalled natural waterways. Where a proposed planned development or subdivision is located in the Greater Pine Island Area adjoining state-designated aquatic preserves and associated natural tributaries, the width of the required buffer will be 50 feet. . . . Existing vegetation within the buffer area must be retained except for the removal or control of exotic plants.

Normally a new setback or buffer requirement is easy to adopt and administer. In this case it would be more difficult because Lee County has chosen to exempt agriculture from nearly all of the requirements that apply to developers.

One exception is that Lee County requires new agriculture operations to obtain a "notice of clearing" from the county before clearing any land. A change could be made to the requirements for a "notice of clearing" to require the retention of at least the 50-foot-wide native buffer that is required for all other land uses and to encourage it to be used with a filter strip to cleanse stormwater runoff before it reaches the mangrove wetlands and tidal waters.

The U.S. Department of Agriculture is strongly promoting riparian forest buffers¹¹ of at least 50 feet and filter strips¹² of at least 20 additional feet around farm fields through their National Conservation Buffer Initiative. The USDA calls them "common-sense conservation" and promotes these buffers as an important supplement to conventional stormwater retention strategies, to serve as a second line of defense in protecting natural resources from avoidable side-effects of agriculture.¹³ The USDA even helps pay for riparian buffers on private property through its Conservation Reserve Program.

SETTING THE COURSE

Wholesale land clearing up to the edge of the mangrove forest is now allowed for agriculture. All other new development must maintain a 50-foot native buffer strip between cleared land and natural water bodies. New rules should require agriculture to maintain at least the same 50-foot separation and use it to filter stormwater runoff.

GETTING THERE

Modify comprehensive plan Policy 14.1.5 as follows:

POLICY 14.1.5: All new development, including New "planned development" rezoning approvals, and new subdivisions, and agriculture, that adjoining state-designated aquatic preserves and associated wetlands and natural tributaries shall preserve or create provide a 50-foot-wide native vegetated buffer area between the development and the waterbody; or associated wetlands. This requirement shall not apply to existing subdivided lots. For agriculture, this requirement:

- shall be implemented through the notice-of-clearing process in chapter 14 of the land development code;
- shall include a requirement to use this area as a riparian forest buffer with an adjoining filter strip wherever farmland abuts wetlands; and
- if native vegetation does not currently exist, native tree cover shall be established within three years of issuance of the notice of clearing.

¹¹ Riparian Forest Buffer (Natural Conservation Service Conservation Practice Standard 391), available from <ftp://ftp.ftw.nrcs.usda.gov/pub/nhcp/pdf/391.pdf>

¹² Filter Strip (Natural Conservation Service Conservation Practice Standard 393), available from <ftp://ftp.ftw.nrcs.usda.gov/pub/nhcp/pdf/393.pdf>

¹³ For details on the National Conservation Buffer Initiative, consult USDA's Natural resources Conservation Service at <http://www.nhq.nrcs.usda.gov/CCS/Buffers.html>

Septic Tanks Along Canals

Water quality in Pine Island's canals and bays can be degraded by many factors, some of which cannot be controlled easily (such as polluted water coming down the Caloosahatchee).

Other factors can be corrected if the public is aware of the problem and is willing to pay to solve it. An example of the latter is bacterial or viral pollution caused by improperly installed or malfunctioning septic tank drainfields. Contaminated canal water can pose health risks from exposure while swimming or boating or from eating contaminated seafood.

Used under proper conditions, septic tanks are a cost-effective method of sewage disposal for individual households. Ideal conditions include porous soils, large lots, the absence of nearby shallow wells or water bodies, and proper maintenance.

However, under some conditions septic tanks function poorly. During normal operation, excess wastewater is routed from each septic tank to an underground drainfield, which is a series of pipes that spread the water over a porous layer of gravel and then into the ground. Because septic tanks alone provide very limited treatment, proper soil conditions are essential so that movement through the soil can provide another level of treatment to capture viruses and other pathogens before wastewater comes in contact with humans or natural systems.¹⁴

Riskier conditions for septic tanks include a high water table, small lot, nearby well or waterway, installation too low in the ground, and lack of maintenance. When not installed or functioning properly, septic tank drainfields can provide a direct path for the pollutants in domestic wastewater to reach the

canals and then the bays.

Pine Island's 66 miles of canal banks are potential routes for pollution to enter sensitive waters. Because most of these canals are deep and dead-ended, they are not easily cleansed by tidal flow. Also, daily tidal fluctuations can raise and lower ground-water levels near canals, creating a pumping effect that can speed the flow of pollutants from the soil into canals.

In the 1980s Lee County installed central sewer service throughout Fort Myers Beach and Matlacha after too many poorly functioning septic tanks along canals caused pollution levels to reach dangerous levels. No agencies currently have a regular program to monitor canals for signs of degradation due to older or malfunctioning septic systems.

In 1988, state rules allowed Lee County to insist that drainfields for new homes be elevated at least 24 inches above saturated soils, sometimes requiring above-ground mounds. These newer systems are much more likely to function properly without polluting nearby waterbodies. However, it is often impractical or even impossible for older homes to upgrade to the new standard.

Decisions to upgrade wastewater disposal systems are often caused by outside factors. This is what happened to the temporary sewage plant that Lee County had installed in the early 1980s on state-owned land on Little Pine Island to replace the septic tanks in Matlacha. This plant itself had become a source of pollution and the state insisted that it be removed. Instead of connecting Matlacha's sewers to the advanced treatment plan in Cape Coral for conversion into irrigation water, Lee County decided to build a new sewage treatment plant on Pine Island.

The decision to build a new regional sewer plant on Pine Island was probably ill-advised, given local soil conditions and flooding risks and the excess capacity available at the Cape Coral plant.

¹⁴ "Human viruses in the coastal waters of Florida," *Coastlines*, issue 10.6, December 2000, available at <http://www.epa.gov/owow/estuaries/coastlines/dec00/humanviruses.html>

However, there are some benefits to Pine Islanders. Many of Pine Island's small freestanding sewer plants can now be easily connected to the new plant, and if septic tanks in sensitive areas are causing pollution, they can be connected also.

The most likely areas for septic tank damage would be populated areas with older septic systems on small lots abutting saltwater canals. These conditions may exist in parts of St. James City, Bokeelia, and Flamingo Bay. A coordinated effort should be mounted to determine whether existing drainfields in those areas are polluting Pine Island's canals.

Simple tests of canal water for fecal coliform bacteria is not sufficient because bacteria levels can be high for other reasons as well. More sophisticated methods are now available for determining whether septic tanks are actually polluting the water. These include dyes and viral tracers that can be flushed into septic tanks to detect whether wastewater is moving slowly enough through the ground to provide a reasonable level of treatment. Two recent studies of this nature in Citrus County and the Florida Keys have found contamination of waterways caused by septic tanks.^{15,16} Similar studies have also been conducted in New Port Richey and Sarasota.

If such tests demonstrate that serious problems exist, the county could establish an inspection program to identify and require replacement of failing or older septic systems, or could require

¹⁵ "Bacteriological and pathogenic water quality assessment of the upper reaches of the Chassahowitzka Watershed" by Michael R. Callahan, Joan B. Rose, Ph.D., and John H. Paul, Ph.D. 2001, prepared for the Utility Division of the Citrus County Department of Public Works.

¹⁶ "Viral tracer studies indicate contamination of marine waters by sewage disposal practices in Key Largo, Florida" by Paul, J.H., Rose, J.B., Brown, J., Shinn, E.A., Miller, S., and Farrah, S.R., in *Applied and Environmental Microbiology*, 1995, vol. 61, No. 6, p. 2230-2234; available at <http://aem.asm.org/cgi/reprint/61/6/2230.pdf>

upgrading when a home is sold. Other actions could include providing full sewer service for those neighborhoods, or a hybrid which might keep the septic tanks but route the effluent into sewers instead of on-site drainfields.

Central sewer service is fairly expensive to install and involves regular monthly charges for operation. However, septic-tank replacement is also expensive and disruptive to yards, especially when mounded drainfields are required. If there is clear evidence that septic tanks are causing pollution, Pine Islanders would support reasonable alternatives because clean and bountiful waters are an expected part of Pine Island life.

SETTING THE COURSE

Water quality in the canals and bays is very important to Pine Islanders. Lee County should initiate a program to determine whether older or failing septic tanks along canals are polluting the water, and if so, the county should analyze steps to solve the problem, including extending central sewer service if warranted.

GETTING THERE

Modify comprehensive plan Policy 14.1.7 as follows:

POLICY 14.1.7: The county shall continue to investigate the need for central sewer service for Bokeelia, St. James City, and Pine Island Center. This shall include, for any area having a strong need for such service, an analysis of available facility sites, alternative types of service, and financial feasibility. Lee County shall design a program within one year to assess the condition of septic tank drainfields along saltwater canals in St. James City, Bokeelia, and Flamingo Bay. This program would analyze whether current soil conditions or the density, age, or condition of drainfields are likely to be degrading tidal water in the canals. If serious degradation is taking place, Lee County shall assess the feasibility of various corrective measures.

Jet-skis and Air Boats

It is no surprise that conflicts often arise over the use of local waterways in a boating community like Pine Island. County government has a limited role in resolving these conflicts, with most authority being retained by the state and federal government.

Counties do exercise some authority over boating. For instance, power boats can be restricted from interfering with popular bathing beaches, and certain boating activities can be regulated under land-use authority (such as the rental of boats). These activities can affect or be affected by shoreline land uses, thus giving counties a clear role in balancing competing uses.

In public meetings on Pine Island, there are two frequent complaints about the effects of boating on land use that might be addressed at the county level. One is the increased popularity of jet-skis (a trade name for what has become known generically as personal watercraft) and the other is the noise from air boats.

Personal watercraft use an inboard engine to drive a water jet pump that propels the boat by exhausting a large stream of water. Personal watercraft are noisy because they are built and marketed as high-speed “thrill craft” that are very powerful and maneuverable. The operators of personal watercraft ride them while standing, kneeling, or sitting on them, rather than sitting inside them like conventional boats. For all of these reasons, accident rates for personal watercraft are very high.

Lee County now regulates mainly the *rental* of personal watercraft; state law controls their *operation*. New county regulations over the operation of personal watercraft would now be very difficult due to a new state law that effectively bans local regulation of personal watercraft. While this state law remains in effect, local governments must ignore even legitimate distinc-

tions between personal watercraft and other boats.¹⁷

Lee County’s current regulations keep personal watercraft rentals away from the bays and sounds by limiting rental locations to the barrier islands.¹⁸ However, those renting personal watercraft, or owning them, can operate them in the aquatic preserves around Pine Island. Unless state law is changed, counties have no authority to adopt restrictions.

Air boats can traverse very shallow water because of their unconventional system of propulsion: their engines spin an *above-water* propeller. Thus there are two sources of noise. First is the engine itself, which is often run without a muffler. But most of the noise comes from the propeller, which at high speeds greatly amplifies the engine noise. Air boats are very noisy and affect waterfront landowners and some wildlife, especially birds. State limitations on air boat noise are rarely enforced.

Local efforts to control air boat noise could involve local enforcement of state noise limits, or a ban on nighttime use, or a ban against operations outside marked channels (or within a fixed distance of the shoreline, except near boat ramps). In 1999 Fort Myers Beach banned all air boats in the portions of Estero Bay within the town because of noise and wildlife impacts.

Problems caused by air boats occur throughout Lee County’s waters. Rather than addressing air boat problems just around Pine Island, Lee County should consider countywide regulatory measures that would preclude the greatest problems caused by careless use of air boats without adding to the patchwork of boating regulations that are already difficult to enforce.

¹⁷ “Any ordinance or local law which has been adopted pursuant to this section or to any other state law may not discriminate against personal watercraft as defined in s. 327.02.” (Chapter 2000-362, section 20)

¹⁸ Lee County Ordinance No. 95-13, section 9

APPENDIX A: TRANSPORTATION DATA AND ANALYSIS

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Access to Pine Island was strictly by boat until 1926 when the causeway carrying Pine Island Road was built through the mangrove islands that became Matlacha. With road access, modern development became practical.

For many decades, this two-lane road was sufficient to meet all demands placed upon it. Although there have been occasional discussions about a second bridge to Pine Island, the hurdles facing such a plan have always been insurmountable.

Constraints on access to Pine Island

As the years progressed, traffic on Pine Island Road has continually increased. By general county standards, the current congestion would warrant plans to widen this road to four lanes, and funds to do so would be found by juggling Lee County's capital improvements budget. In fact, this widening would be necessi-

tated by Lee County's concurrency standards, which require that all development and building permits be stopped once traffic on a road exceeds the road's full capacity, a congestion level known as "Level of Service E" (LOS "E").

However, Lee County has formally designated certain roads that cannot (or should not) be widened as "constrained." According to Lee Plan Objective 22.2: "Reduced peak hour levels of service will be accepted on those constrained roads as a trade-off for the preservation of the scenic, historic, environmental and aesthetic character of the community." The Matlacha section of Pine Island Road has been designated as "constrained" since 1989.¹⁹ Since that time, Lee County has also designated the heart of Matlacha as a historic district, further protecting the community from road widening that would damage its character (see map of historic district on page 26).

The 810/910 rule in Lee Plan Policy 14.2.2

Origin of Policy 14.2.2

In 1989, Lee County was negotiating with the state over details of its new comprehensive plan, including the concept of constrained roads. Much of the controversy centered around another constrained (but much more heavily congested) road, Estero Boulevard at Fort Myers Beach. Community sentiment there strongly favored enduring the road congestion rather than widening Estero to four lanes, in part because the congestion was limited to the winter season when there was no hurricane evacuation threat. To reflect that sentiment, Lee County decided to sanction very extreme levels of congestion on constrained roads.²⁰

¹⁹ Pine Island Road from Shoreview Drive west to Little Pine Island, according to Lee Plan Table 2(a)

²⁰ Specifically, 85% more traffic than the roads were designed to handle would (at least theoretically) be allowed.

For most of Lee County's islands, a "constrained" designation on their access road caused few or no problems. At Fort Myers Beach, nearly all land was already developed, and the existing traffic congestion was accepted as the price of a prosperous tourist economy. Bonita Beach, Captiva, and Boca Grande were nearly at build-out and under strict growth controls, so loosening the road standards would not increase traffic congestion. Sanibel, as its own city, would not be affected at all.

Only on Pine Island could the "constrained" designation have had alarming consequences. On Pine Island, vast tracts of land were still undeveloped; and the seasonal population extremes, while significant, weren't as great as the other island communities, leaving a larger percentage of Pine Island's population subject to summertime evacuations.

To avoid these effects on Pine Island, Lee County needed to supplement the constrained designation to keep it from allowing more development than the road system could handle. The county chose to modify a 1988 proposal from the Greater Pine Island Civic Association which was designed to gradually limit development on Pine Island as Pine Island Road began to approach its capacity. The proposal would have prohibited rezoning most additional land for development when 80% of road capacity was used up, and prohibited approvals of new subdivisions, even on land already zoned, when 90% was used up.²¹

Those percentages were based on the road's capacity at LOS "D," which at the time was defined as representing:
"...high-density, but stable, flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience.

²¹ *Pine Island Land Use Study – Issues and Recommendations*, prepared by Carron Day for and with the assistance of the Greater Pine Island Civic Association, January 1988.

Small increases in traffic flow will generally cause operational problems at this level."²²

Under the conditions existing on Pine Island Road, LOS "D" was defined by Lee County as occurring when 1,010 vehicles per hour used the road during the busiest hours in the winter.

To make sure that these limits wouldn't be ignored when they were reached, the state land planning agency insisted that the Lee Plan convert those percentages to specific vehicle counts at the nearest permanent traffic count station, which is located on Little Pine Island at the western edge of Matlacha. Thus, 80% was converted to 810 vehicles per peak hour, and 90% was converted to 910 vehicles.²³ These levels were then adopted into law as Lee Plan Policy 16.2.2 (later renumbered to 14.2.2).

Physical changes to Pine Island Road since 1989

During 1991 and 1992, Lee County reconstructed Pine Island Road from Burnt Store Road to Stringfellow Road. The county elevated flood-prone segments and widened the travel lanes to twelve feet. Within Matlacha, French drains were installed and the pavement was extended beyond the travel lanes in some places for parking. Outside Matlacha, the shoulders were widened to eight feet (four feet of which was paved) and the drainage ditches were improved.

These improvements had already been designed by late 1989 and a consultant to Lee County had analyzed whether they would increase the traffic-handling capacity (known as the

²² *Support Documentation for the Traffic Circulation Element*, for revisions adopted January 31, 1989, prepared the Lee County Division of Planning and Department of Transportation and Engineering, pages III-5, III-6, and III-10.

²³ *Proposed 1990 Revisions to the Lee Plan, Volume 1, Traffic Circulation Element*, prepared by David Plummer and Associates, September 1990, pages III-4 and B-6.

“service volume”) of Pine Island Road. If they would have actually increased the road’s capacity, the 810 and 910 figures might have been increased accordingly. The consultant concluded that they would not increase capacity:

“The reconstruction currently underway on Pine Island Road west of Burnt Store Road will raise the elevation of the roadway and widen the lanes to standard widths. Neither of these improvements will, according to the 1985 Highway Capacity Manual, affect the service volumes.”²⁴

Current traffic conditions on Pine Island Road

Since 1990, traffic on Pine Island Road in Matlacha has increased by about 22%. Figure A-1 shows the average counts for each year, with a visual comparison to the 810 and 910

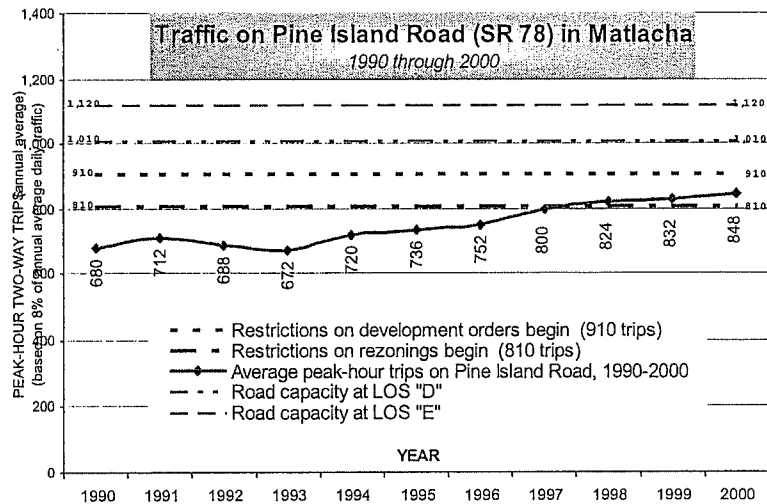


Figure A-1, Traffic on Pine Island Road in Matlacha, 1990 through 2000

²⁴ Proposed 1990 Revisions to the Lee Plan, Volume 1, Traffic Circulation Element, prepared by David Plummer and Associates, September 1990, page B-4.

thresholds in Policy 14.2.2. The 810 threshold was surpassed in 1998, 1999, and 2000.

These significant traffic increases occurred during a decade where there was relatively little new subdivision or condominium development on Pine Island. Population increases resulted mostly from the construction of new homes on pre-existing vacant lots. Other traffic increases may have resulted from difficult-to-quantify changes in tourism or commuting patterns.

The largest traffic flows through Matlacha are eastbound during the morning rush hours and westbound during the afternoon rush hours, as shown in Figure A-2. Afternoon peaks are slightly higher than morning peaks. This pattern is similar year around, with the peaks more pronounced during the less busy months.

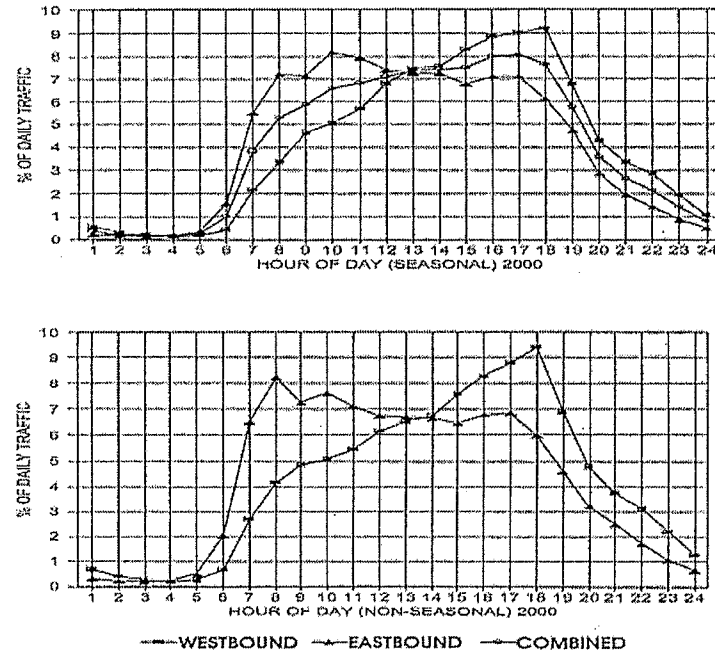


Figure A-2, Directional flow and hourly variations in Matlacha, 2000T

Traffic flow through Matlacha is affected by several other factors. The drawbridge is opened an average of two or three times each day to accommodate boaters, blocking traffic in both directions. School buses make about 30 trips each day, with about half occurring during peak traffic periods each day. Because there are no medians on Pine Island Road, traffic must stop both directions when school buses are loading. Public transit is very sparse at present and has inconsequential effects on traffic flow.

Changes since 1989 in methods of analyzing capacity

In 1990 Lee County began using a different method for determining the capacity of roads, using the 1985 *Highway Capacity Manual* instead of the earlier 1965 *Highway Capacity Manual*.²⁵ Lee County decided to base the 810/910/1010 figures for Pine Island Road on the earlier method for determining capacity, to keep future technical changes in analytical methods from changing their policy decision on how to manage growth on Pine Island.

The earlier method was based primarily on physical characteristics of the road, such as the number of lanes, the width of the lanes, and lateral clearance from obstructions such as parked cars or pedestrians. Pine Island Road west of Burnt Store was designated as a major collector road in a "type 5" rural area.

The remainder of the Lee Plan used the newer method, which determined capacity on arterial roads about equally by the number of lanes and by the length of delays caused by intersections. For most urban roads, delays caused by the red cycle of traffic signals are a major limitation on the number of vehicles that can traverse those roads; thus the number and timing of

²⁵ Since that time, further modifications have been made in a 1994 *Highway Capacity Manual* and a 1997 *Highway Capacity Manual Update*, all published by the Transportation Research Board.

traffic signals becomes a major factor in determining road capacity. The newer method also assumes that left turn bays are provided at intersections and are adequate to prevent a following vehicle from having to slow down or stop.

Under the newer method, there is no straightforward reduction in capacity for a road with typical collector-road characteristics; the reductions must be computed through a sophisticated traffic analysis. The new method, without adjustments, may even understate the capacity of Pine Island Road as it crosses Little Pine Island. However, it is primarily within Matlacha itself that the bottlenecks occur. Within Matlacha there are no traffic signals, no major crossing streets, and no left-turn bays, yet there are multiple intersecting streets and driveways. With all of these factors, the new method, unless adjusted for those factors, would not provide a reasonable measurement of traffic capacity.

In order for the new method to accurately forecast the capacity of Pine Island Road, it must be carefully adjusted to factor back in the various obstructions to free-flowing traffic through Matlacha (no left-turn bays or passing lanes; reduced speed limit; cars backing into the road from parking spaces; frequent driveways; presence of pedestrians; etc.). These adjustments require more data than is currently available, for example the free flow speed, peak-hour characteristics of traffic flow, and the adjusted saturated flow rate.

In the absence of this data, it is instructive to compare the capacity of Pine Island Road using the older methodology with the capacity of Estero Boulevard at Fort Myers Beach²⁶, as

²⁶ Estero Boulevard is the same width and has many of the same constraints as Pine Island Road through Matlacha; due to very heavy demand, its traffic flow completely breaks down most days from late January into April, with traffic flowing in a stop-and-go pattern between about 10:00 AM and 6:00 PM. A summary of this data is provided in the Fort Myers Beach Comprehensive Plan, pages 7-B-15 through 7-B-20.

computed by the Lee County department of transportation, as shown in Table A-1. The latest and most thorough study, completed in 1997, suggests that Estero Boulevard's capacity using the new method is only about 10% larger than the comparable capacity for Pine Island Road using the old method.

TABLE A-1

**OLD CAPACITY METHODOLOGY
(used for Pine Island Road in the 1989 Lee Plan)**

LEVEL OF SERVICE	Peak-hour trips (both directions)	COMMENTS:
LOS "E"	1,120	<i>LOS "E": full capacity; traffic flow breaks down with small increases in traffic</i>
LOS "D"	1,010	<i>LOS "D": high-density but stable flow</i>
90% of "D"	910	(development order restrictions begin)
80% of "D"	810	(rezoning restrictions begin)

**NEWER LEE DOT CAPACITY METHODOLOGIES
(for Estero Boulevard)**

LOS "E"	1,780	full capacity of uninterrupted and undivided two-lane road near the coast (1995 Lee DOT study)
LOS "E"	1,424	full capacity of Estero Boulevard south of Donora, based on 20% reduction (1995 Lee DOT study)
LOS "E"	1,316	full capacity of Estero Boulevard between Donora and Crescent, based on 30% reduction (1995 Lee DOT study)
LOS "E"	1,240	full capacity of Estero Boulevard (1997 Lee DOT study based on new data)

Physical alternatives to improve access to Pine Island

Four different types of access improvements to Pine Island are described in the following sections, followed by preliminary comments on the impacts of each.

Access improvements could have a variety of physical impacts. These impacts would primarily occur in Matlacha if the existing 66-foot right-of-way were to be reconfigured or widened; they would be primarily environmental if an entirely new access road were created.

Within the existing right-of-way

Two possible reconfigurations have been identified that could fit within the existing 66-foot right-of-way (approximately the distance between the existing utility poles):

1. **CONVERT TO THREE LANES:** The existing pavement, including the paved shoulders, is about 32 feet wide. It could be rebuilt and reconfigured to three lanes of almost 11 feet each, and the unpaved shoulders could be paved to serve as breakdown lanes or walkways. The third travel lane could serve either as a two-way left turn lane or as a reversible lane for traffic in the busier direction.
2. **CONVERT TO FOUR LANES:** The road could also be reconfigured into an urban street with curbs and gutters. The existing right-of-way could accommodate up to four 11-foot lanes, two 2-foot concrete curbs and gutters, and two 9-foot raised sidewalks. This configuration would require extensive earthwork and metal railings, similar to the recently rebuilt San Carlos Boulevard as it approaches Fort Myers Beach.

Unless the bridges were widened as well, either approach would still face the bottleneck of having a three-lane or four-lane road narrow into two-lane bridges (similar to the Sanibel Causeway

which has two-lane bridges connecting to four-lane roads).

The three-lane approach would change the look and feel of Pine Island Road less than the four-lane approach. If the third lane were used for left turns, those turns would cause less interference with traffic flow (which will become increasingly important as congestion increases).

A third lane could also be reversible, used for travel in the direction of highest traffic flow. The center lane would be designated for one-way travel during certain hours of the day, and in the opposite direction during other hours. The outer lanes provide normal flow at all times.

There are various problems with reversible lanes, such as operational problems at each end of the reversible lane; enforcement difficulties; increased safety hazards; and unsightliness of the traffic signals and/or barriers that would be required.

It seems unlikely that a reversible lane would have enough benefits in Matlacha to offset the operational difficulties. The greatest benefit to a third lane would be for left turns during daily use, and for an additional lane off Pine Island during an evacuation.

Adding a third lane would cause a number of problems, however, including:

- Pedestrians trying to cross Pine Island Road would have to walk a greater distance, making the crossing less safe;
- The character of Matlacha would lose some of its village atmosphere and pedestrian orientation, replaced with a more highway-oriented character;
- Pedestrians would lose the use of the current paved shoulder, which functions as an informal sidewalk; and
- Businesses and homes would lose some of their park-

ing area because the travel lanes would now be using the previous paved shoulders outside the French drains.

The second reconfiguration, into four travel lanes, would significantly increase the traffic-carrying capacity of Pine Island Road, without any of the complexities of changing the directional pattern of the center lane every day.

Pedestrian safety would be improved by replacing today's informal drainage and sidewalk pattern with raised sidewalks. However, these sidewalks would now extend to the very edge of the right-of-way, putting them directly adjacent to many buildings whose fronts are on the right-of-way line. In business areas, this is appropriate for both the stores and the pedestrians, but in residential areas it would be very awkward for the residents (as well as the pedestrians).

The four-lane configuration would preclude any left-turn bays and would eliminate all parking from the right-of-way. The loss of parking would be a major disadvantage and would seriously damage, if not eliminate, the viability of many small businesses. Undoubtedly, the physical construction of a four-lane configuration would seriously damage Matlacha's village atmosphere and pedestrian orientation.

The increases in traffic capacity that four lanes would provide would be detrimental to the character of Matlacha but would have mixed impacts on the remainder of Greater Pine Island. If the increased capacity just led to approval of more development on Pine Island, the damage to Matlacha would have been for naught. If the increased capacity were provided *without* allowing an additional increment of development on Pine Island, traffic congestion on Pine Island Road would be reduced, although it would reappear as existing subdivision lots are built upon and the new road capacity begins to be used up.

With a wider right-of-way

Some of the negative factors of a four-lane configuration could be offset by purchasing additional right-of-way, for instance to be used for a planting strips with trees that could separate the sidewalk from the travel lanes or from building fronts. However, the existing land-use pattern has very shallow lots that often back up to the waters of Matlacha Pass. Also, many of the existing buildings directly adjoin the existing right-of-way, so widening the right-of-way would involve altering or demolishing many buildings in Matlacha. A 1982 estimate suggested that if the right-of-way were expanded from 66 to 90 feet, as many as 75 businesses and homes in Matlacha would have to be altered or removed.²⁷

In 1990, Lee County designated the central portion of Matlacha as a historic district. This designation would not legally prevent Lee County from altering or demolishing historic buildings, but it indicates the historic value of many of Matlacha's buildings in addition to its unique village character.

Given these constraints, it is apparent that Lee County's 1989 decision to classify Pine Island Road as "constrained" (and therefore not subject to widening) was correct. It is possible that the benefits of a third lane through Matlacha might outweigh the disadvantages, and if so this improvement could be constructed. But building *four* travel lanes through Matlacha, either within the existing or a widened right-of-way, should not be considered to be a viable or practical option.

²⁷ *Pine Island at the Crossroads*, by William M. Spikowski, 1982, p. 3.

New bridge bypassing Matlacha

The capacity of Pine Island Road could also be increased by building a new bridge *around* Matlacha. A possible route would begin at about Shoreview Drive, run just south of Matlacha, and reenter Pine Island Road on Little Pine Island just west of the Sandy Hook restaurant, a distance of just over 1½ miles.

A Matlacha bypass bridge could provide uninterrupted two-way traffic to and from Pine Island, or could provide one-way traffic, with the existing Pine Island Road serving traffic in the other direction. Two-way traffic is generally more convenient to the public. One-way traffic allows more cars to use the same amount of roadway, but is generally regarded as being harmful to businesses along the route. Either scenario would create serious intersection impacts at each end, and could cause additional travel to connect motorists with their actual destinations.

Either scenario would also require widening Pine Island Road beyond the ends of the bridge in order to take full advantage of the bridge's new capacity. This would be especially important between the eastern terminus and Burnt Store Road.

Pine Island Road is a county road west of Burnt Store Road (as are both bridges). Any improvements would be constructed and paid for by Lee County. Because major bridges are beyond the ability of the county to afford with current revenue sources, they are built with the proceeds from selling bonds, which are then paid back over time (usually with tolls, although they can also be repaid through special taxes or assessments).

One recent and one planned bridge can illustrate the magnitude of how expensive new bridges are to construct.

A new bridge was completed in 1999 over eastern Pensacola Bay. This bridge is about 3.5 miles long and cost \$54 million to build; it was funded through a \$95 million bond issue. (At present, only half of the expected users are paying the \$2 toll,

and the bridge's owner, the Santa Rosa Bridge Authority, is unable to repay its bonds, which run for another 30 years.)

For the last two years Lee County has been considering rebuilding the Sanibel Causeway and its three bridges. Replacing the main bridge alone is estimated by the county to cost \$45 million for a higher and wider drawbridge or \$77 million for an even higher fixed bridge.

State and federal permits are required for all new bridges, and are difficult to obtain, especially for a new bridge through the Matlacha Pass Aquatic Preserve.

A Matlacha bypass bridge would have serious environmental impacts and there is no realistic source of funds to build it. Its increased traffic capacity might lead to approval of more development on Pine Island, negating its positive impacts on traffic flow and hurricane evacuation. If the increased capacity were provided *without* allowing an additional increment of development on Pine Island, traffic congestion on Pine Island Road would be reduced substantially.

At least at present, building a new bridge around Matlacha is not a feasible option.

Entirely new bridge and entrance road

Another alternative involving a new bridge would be to extend Cape Coral Parkway westerly across Matlacha Pass, ending about halfway between St. James City and Pine Island Center near the Masters Landing power line. This alignment would cross about two miles of wetlands and one mile of open water. A continuous bridge would be needed to avoid interference with tidal water flows in the wetlands and Matlacha Pass.

At present there is a narrow earthen dam through the mangroves that support an access road for maintaining the power line. If this fill were allowed to remain in place, it may be able

to support a two-lane access road for the new bridge, thus reducing the cost of this alternative.

This alignment would extend into the Cape Coral city limits, adding an extra layer of regulatory issues. The new bridge would add traffic onto Cape Coral Parkway, which is planned to be widened to six lanes but cannot be widened further. This alignment would function well for traffic between St. James City, Cape Coral, and south Lee County.

This option, like the Matlacha bypass option, is currently cost-prohibitive and could have major environmental impacts on Matlacha Pass. Neither new-bridge option can be considered viable at this time.

Transportation policy alternatives

Since the 1989 update of the Greater Pine Island portion of the Lee Plan, a number of changes have been made to Pine Island transportation policies. Policy 16.2.3 committed Lee County to improving Pine Island Road by 1993 in four specific ways (all of which were completed before this policy was eliminated):

- Elevate the flood-prone segments.
- Widen the traffic lanes to twelve feet.
- Widen and improve the shoulders.
- Improve the intersection at Stringfellow Blvd.

Policy 16.2.4 committed Lee County to taking whatever additional actions were feasible to increase the capacity of Pine Island Road, specifically calling for the following measures to be evaluated:

- The construction of a bicycle lane which could serve as an emergency vehicle lane during an evacuation, thus freeing both traffic lanes for the evacuating population.
- The construction of two more lanes around Matlacha.
- The construction of left-turn lanes at intersections with local roads in Matlacha, or a continuous third lane.

Parts of Policy 16.2.4 were repealed in 1994 because the county concluded that: "The first two items would be prohibitively expensive. The existing pavement already accommodates emergency vehicles and two lanes of traffic." The final item was retained in the policy because it had not been fully evaluated at that time (and apparently not since). Policy 16.2.2, later renumbered 14.2.2 and discussed at length earlier in this report, was retained unchanged because: "The extraordinary treatment of Pine Island Road in these policies is justified by the absence of other hurricane evacuation routes for Pine Island, Matlacha, and a large portion of Cape Coral."²⁸

Beginning in 1998, the 810-trip threshold in Policy 14.2.2 has been exceeded each year. Once county officials became aware of this fact, they initiated an amendment to the Lee Plan to reevaluate Policy 14.2.2 "to reflect current road conditions." The processing of that amendment has been delayed pending completion of this community plan update.

There are two fundamental questions that must be answered at this time regarding Policy 14.2.2:

#1: Have any factors changed sufficiently since 1989 to warrant adjustments to the 810/910 thresholds in Policy 14.2.2?

One relevant factor would be existing or planned improvements to the capacity of Pine Island Road. As discussed earlier, important improvements were made in 1991-92 including elevating flood-prone segments of the road, but those improvements did not increase the capacity of the road during everyday conditions.

Another relevant factor would be if better traffic data were now available, especially if such data would allow a more sophisticated analysis of existing or future congestion. A permanent traffic counter has been in place on Little Pine Island at the western edge of Matlacha for over ten years, collecting traffic data 24 hours a day all year; no changes have been made to this counter. As to methods of interpreting this data, a more sophisticated method for analyzing the capacity of a road has become commonplace since 1989, but its basic assumptions are less relevant for Pine Island Road through Matlacha than the previous method, and no entity has attempted to collect enough specialized traffic data to properly apply it in Matlacha. It has been suggested that the new methodology might indicate that Pine Island Road has a significantly greater capacity than indicated by the previous methodology, but the most recent Lee DOT work suggests only 10% higher capacity even on Estero Boulevard when using the new methodology.

Regardless of the ultimate determination of the full capacity of Pine Island Road, Policy 14.2.2 was clearly contemplated to begin slowing development approvals on Pine Island at pre-determined points in time, that is, when traffic reached 80% and 90% of what was determined to constitute *dense but stable flow* (known as LOS "D"). Those points were not set to occur at 80% and 90% of *full capacity* of the road (LOS "E"), but at a slightly earlier time, in a clearly stated effort to "recognize and give priority to the property rights previously granted by Lee County for about 6,800 additional dwelling units..." No technical factors or changes since 1989 have been discovered in the course of this planning process that would justify abandoning the 810/910 thresholds in Policy 14.2.2.

²⁸ EAR [evaluation and appraisal report] for Future Land Use, May 1994, section III, pages III-16 and III-17.

#2: Are any other changes to Policy 14.2.2 warranted?

Once the 810 threshold has been reached, Policy 14.2.2 calls for adoption of development regulations that provide “restrictions on further rezonings which would increase traffic on Pine Island Road.” When 910 has been exceeded, regulations are to “provide restrictions on the further issuance of residential development orders....”

To implement this policy, in 1991 Lee County amended its land development code using the following language:

§2-48(2) When traffic on Pine Island Road between Burnt Store Road and Stringfellow Boulevard reaches 810 peak-hour annual average two-way trips, rezonings that increase traffic on Pine Island Road may not be granted. When traffic on Pine Island Road between Burnt Store Road and Stringfellow Boulevard reaches 910 peak-hour annual average two-way trips, residential development orders (pursuant to chapter 10) will not be granted unless measures to maintain the adopted level of service can be included as a condition of the development order.

The wording in this section was taken almost verbatim from Policy 14.2.2. This has become problematic because it is not self-evident which kinds of rezonings will “increase traffic on Pine Island Road.” The county’s usual method for enforcing traffic regulations is to require a traffic study from a development applicant and then to make a decision based on that study, rather than on an independent evaluation of the facts. This approach delegates this important analysis to the private party having the biggest stake in its outcome and is not likely to result in sufficient objectivity.

A better approach would be for the regulations that implement Policy 14.2.2 to be more self-explanatory (while still allowing an applicant to provide data if they think they qualify for an exception). For instance, it should be clear

that some types of rezonings would have inconsequential or even positive effects on traffic on Pine Island Road. A convenience store in St. James City would serve only local residents and those passing by, and would attract no new trips onto Pine Island Road. A larger grocery store in St. James City would attract shoppers from a larger area, perhaps including some who currently drive to Matlacha or Cape Coral to shop for groceries, possibly *decreasing* traffic on Pine Island Road. However, a new hotel or marina on the same St. James City property could have a different effect. A large new hotel or marina would undoubtedly serve some residents of St. James City and Pine Island Center, like a grocery store, but it would also attract users from throughout Lee County and beyond who would drive across Pine Island Road to spend a few nights or to launch a boat.

Thus an important distinction could be made in implementing Policy 14.2.2 between those land uses that primarily serve residents or visitors who are already on Pine Island, and land uses that primarily attract additional people across Pine Island Road. For instance, the following commercial uses would primarily serve residents and visitors: grocery, hardware, and convenience stores; hair salons; and service stations.

This distinction would be clouded somewhat by other factors, particularly the size and location of commercial uses. For instance, a 20-seat restaurant on a St. James City canal or a small inn are desirable Pine Island businesses that would be unlikely to draw substantial traffic across Pine Island Road. However, a 150-seat restaurant with a panoramic view (or a chain hotel) with a large advertising budget may well draw customers primarily from off Pine Island. To reduce this problem, some small commercial uses might be exempted from this policy even if they are of a type that primarily attracts additional vehicular trips. Other

alternatives would be to allow minor rezonings below a certain size if they are proposed on “infill” properties between existing development at similar intensities (rather than expanding or intensifying already-developed areas), or if their characteristics are such that traffic during the busiest peak hours would not be increased.

In summary, none of the available options for adding significant road capacity to Pine Island are practical. Building four travel lanes through Matlacha, either within the existing or a widened right-of-way, would seriously damage Matlacha’s village atmosphere and pedestrian orientation. Either new-bridge option would have serious environmental impacts and in any case there are no funds for such expensive undertakings. The increased traffic capacity of either bridge would most likely lead to approval of more development on Pine Island, negating the initial positive impacts on traffic flow and hurricane evacuation.

APPENDIX B: RURAL LAND-USE ALTERNATIVES

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This appendix contains an evaluation of five growth management techniques for Pine Island plus two hybrid techniques. Any of these techniques could become part of the new comprehensive plan and its future land use map and would be implemented through subsequent changes to other county regulations. (Existing lots would presumably be “grandfathered in” even if they are now vacant.)

1. Conservation land purchases

Local citizens have a strong interest in preserving portions of the native landscape. In 1996, Lee County voters initiated the Conservation 2020 program and funded it with a half-mill property tax for seven years. In the past year Lee County has begun negotiating the purchase of several large Pine Island tracts for preservation under this program. The state of Florida also has a major land acquisition program; in fact they were equal partners with Lee County in purchasing a 103-acre preserve near St. James City in 1993 that provides a nesting habitat for bald eagles. The federal government is also increasing its role in environmental land acquisitions in southwest Florida.

Through their combined efforts, these programs could purchase major portions of Pine Island’s upland habitats over the next ten years. At present, about 2,800 acres of undeveloped native upland habitat remains, excluding that found on fragmented subdivision parcels. Almost all of this habitat is located in Pine Island’s “Rural” areas. Removing any or all of these tracts from the private land market would make their treatment under the comprehensive plan moot. This update to the comprehensive plan could help these agencies identify the most valuable native lands remaining on Pine Island and demonstrate a consensus of Pine Islanders that such purchases would be welcomed.

The positive features of this approach would be taking advantage of existing governmental priorities on habitat preservation and, as a fortunate byproduct, helping maintain the character of the rural portions of Pine Island and precluding residential development. Extensive research on the physical characteristics of large tracts has been carried out recently by the non-profit Calusa Land Trust; their data could be used to help guide this effort. The effects on large landowners would be minimal because these acquisitions have historically been voluntary transactions with willing sellers.

Some negative features of this approach are the reliance on outside agencies that might decide to spend their acquisition funds outside Pine Island, or that might not complete their Pine Island purchases until such time as many natural habitats have been cleared for farming or have become overrun by invasive exotic vegetation.

2. Larger lots in rural areas

An obvious alternative to the current “Rural” category on Pine Island is to simply lower the allowable density for residential development, to either 1 DU/20 acres (or /10 or /5 acres). There is ample local precedent for density reductions; in 1990, Lee County created a new “Density Reduction – Groundwater Resource” category, where density is limited to 1 DU/10 acres,

and has applied it to about 74 square miles of land, mostly east of I-75 and south of SR 82 but also some land along the Charlotte County line near SR 31. Most of the remaining land within two miles of the Charlotte County line have been reduced to a density of 1 DU/5 acres.

In those cases the density reductions were made by the county to resolve a legal challenge by the state land planning agency against Lee County's comprehensive plan. Although much of the motive for the reduction was to prevent further urban sprawl, in those cases the lands were selected based on proximity to shallow underground water sources that can be contaminated by urban development. Land values did not plummet after the reduction, as many landowners had claimed they would. Values were maintained because there were other viable purchasers for this land, including fill-dirt and limerock mines; the citrus and tomato industries; government purchases of wildlife habitat and environmentally sensitive lands; and land speculators who anticipate fewer restrictions at some point in the future.

Although there are no comparable groundwater resource issues on Pine Island, there is an obvious public purpose to reducing densities that cannot be supported by adequate infrastructure (in Pine Island's case, limited road access to the mainland). This distinction could be reflected by naming this new land-use category "Coastal Rural."

Positive features of this density-reduction approach are its simplicity and the local experience with this obvious method of controlling urban development where it does not belong. This approach furthers the important planning objective of clearly separating urban and rural uses, as called for in the state comprehensive plan and the state's rules governing local comprehensive plans. This approach could result in subdividing rural land into, say, five-acre homesites, which would avoid agricultural clear-cutting (although it would still result in considerable clearing of native pines and palmettos for yard space).

A significant negative feature is that it would not interfere with further habitat destruction that occurs when undisturbed lands are converted completely to agriculture. Also, it might be seen as overly harsh by large landowners, who also might characterize it as an unfair attempt to lower their land values to benefit future conservation purchasers of large tracts.

3. Cluster development

Under current regulations, "Rural" lands are limited to 1 DU/acre, but there is no prohibition on requesting a rezoning that would allow the same number of dwelling units arranged differently, for instance with houses "clustered" on smaller lots surrounding a golf course. Such arrangements are voluntary on the part of the landowner and subject to approval through the formal rezoning process.

Clustering as currently practiced rarely preserves significant native habitats. In fact it is an inducement to develop the predominant Florida real estate form of the last two decades, country club communities surrounding golf courses, a development form that hardly matches the stated purpose of the "Rural" category.

The concept of clustering could, however, be modified to suit Pine Island conditions. For instance, clustering could be mandatory rather than voluntary, with fixed percentages of native habitats being retained within new developments. On very large tracts, houses might still be allowed around golf courses or fill-dirt lakes if the percentage of native habitat that must be retained was fairly low, such as 30%. Higher percentages, such as 70%, would preclude recreational facilities such as golf courses that consume large amounts of land, and thus could preserve more of the natural landscape.

The best feature of a modified clustering approach could be preservation of native habitats without outright purchase. Lee County's considerable experience with clustered development

and its flexible zoning categories can be used to accomplish this goal. Clustering is unlikely to trigger any claims under the Bert Harris Act, and would be prized by Pine Islanders (present and future) who place a high value on proximity to natural preserves.

Some negative features are that many tracts, especially those that have been farmed, have no native habitat remaining. Although habitat can be restored, restoration is more costly than preserving existing habitats. Also, protected habitats may end up being fragmented, which reduces their value to wildlife (compared to preservation purchases of entire large tracts).

4. Transferable development rights

The rights to develop a parcel of land can be permanently severed from that parcel and transferred to another parcel. This concept is called transferable development rights (TDR).

Lee County has had a TDR program for fifteen years. Wetlands are allowed only 1 DU/20 acres, but wetland owners who agree never to develop not only can transfer those development rights, but they actually get to multiply their density by a factor of four; they are allowed to sell the wetland development rights at a ratio of 1 DU/5 acres of wetlands. The development rights can be used at certain other locations in Lee County. The market value of these development rights is set by the private market; Lee County is not involved in the actual sale, only in approving the "receiving" locations, which are planned urban areas on the mainland.

Lee County's first TDRs were created on Pine Island in the late 1980s. The undeveloped wetlands in the St. Jude Harbor subdivision were converted by the landowners into 436 TDR units. (In that single instance, the number of TDRs wasn't based on acreage, but rather on the number of lots that the landowner had been trying to sell from that property.) However, to date the landowners have only been able to sell about a fourth of

these TDRs, at an average price of around \$3,000 each.

TDR programs tend to be popular with the public and with elected officials because of their inherent sense of fairness, and the seeming ability to avoid creating winners and losers in the land-use planning process. They are less popular with landowners, who often fear they will be unable to sell them. The reason is that TDRs are valuable to buyers only when development rights are a scarce commodity, typically when local governments have strict regulations on development. Lee County's regulations have never been very strict; consequently, TDRs have had only very limited success locally. (Some governments offer to buy and stockpile TDRs at some fixed price to create a minimum value for TDRs.)

A new TDR program for Pine Island would need to identify receiving locations other than those currently in use; otherwise the new TDRs would further flood the same market as the current TDR program and therefore be unsaleable or saleable only at relatively low prices. TDRs would be quite valuable if they could be used to allow greater development on the barrier islands, but all of Lee County's islands suffer the same transportation constraints as Pine Island. TDRs would also be valuable in the areas where Lee County has restricted density levels to 1 DU/10 acres, but again those restrictions were placed for a purpose and it would be difficult to justify swapping unwanted development rights to another unsuitable location.

5. Rate-of-growth control

Some communities establish a cap on the number of residential building permits that can be issued in each quarter or each year. A similar cap on commercial permits could be established so that commercial development does not outpace residential growth.

A side benefit of this approach in some communities is to allow a comparison of the quality of development applications and

approve only those that best comply with community standards. On Pine Island, objective criteria could be established to measure the cumulative impact on Pine Island's environment, on hurricane evacuation plans, on availability of utilities and supporting infrastructure, and on overall conformance with the goals of the comprehensive plan. Permits could be issued at the end of each quarter to the highest scoring applicants until the quota for that quarter, perhaps 25 dwelling units, has been met.

Rate-of-growth ordinances are usually established during periods of runaway growth to allow the government time to provide the needed roads and utilities.

The city of Sanibel adopted a rate-of-growth ordinance in the late 1970s. It was imposed through a citizen referendum during a period of very high growth shortly after the city's incorporation, with a limitation on building permits of 180 dwelling units per year. Every four months, all permit applications were compared, and up to 60 were issued. Preference was given to below-market-rate housing, single-family homes, and smaller condominium buildings. A "grading" scheme was used to reward quality development proposals, although this had only mixed results. The Sanibel ordinance was repealed when permit requests fell below the cap for several years in a row.

On a practical level, a positive feature of this approach for Pine Island is that it isn't really essential right now. Growth rates have been relatively slow during the past decade, so an annual cap that is suitable for the long term would probably be painless in the beginning, allowing refinement of the criteria before they result in rejection of applications.

Negative features are that this approach might be more difficult to defend in the absence of a runaway growth crisis and in the absence of specific infrastructure shortfalls that Lee County is in the process of correcting. Rate-of-growth ordinances are usually controversial and difficult to administer, and cause delays in the

processing of even routine building permits. They tend to spur speculative building and can discourage individual lot owners who wish to build a home for themselves. Perhaps the biggest negative is that, in the absence of the other approaches suggested above, an annual growth cap would lead Pine Island to the same place as the current system, with the arrival time merely delayed.

6. Dual-classification with clustering

These five techniques need not be applied in isolation. In fact, two hybrid solutions offer more promise than any single technique. The first hybrid, dual-classification with clustering, would create two new categories for the existing "Rural" lands:

- Disturbed lands, which have been farmed or otherwise cleared of native vegetation, or which have advanced infestation of exotic trees. On these lands, agriculture would be allowed and encouraged. Residential densities would be lowered to 1 DU/10 acres. Given the strong local evidence that lands suitable for agriculture are worth more than their development value, Bert Harris Act claims would be unlikely to succeed. A later increase in residential density could be provided for, if cleared lands were restored to native habitats through planting of native pines and palmettos; on tracts with hundreds of acres, such habitat restoration might be combined with a golf course, all built on previously disturbed lands.
- Undisturbed upland habitats, such as native slash pine and palmetto habitats. Agriculture and golf courses would be prohibited here. Residential density might stay at present levels, but new regulations would require development areas to be clustered to protect a high percentage, perhaps 70%, of natural upland habitats. Future conservation purchases would also be focused on these lands.

The positive features of this first hybrid approach are that it would encourage continued agricultural use on disturbed lands while diminishing the potential for residential development on those lands in the future. It would prohibit the destruction of undisturbed habitats where they still exist, while offsetting any resulting diminution of land value by maintaining current density levels there. Any actual development on undisturbed habitats would disturb far less land than would occur today by allowing today's number of dwelling units to be placed on smaller lots. Public purchases of entire tracts for preservation would still be highly desirable and encouraged, but if those purchases do not take place, this alternate plan would ensure far more preservation than current regulations.

Some negative features are the complexity of the classification process and the need to establish two new land-use categories in the comprehensive plan instead of one (or none). It will seem counterintuitive to many to allow higher densities on natural habitats than on disturbed lands (although this serves as an incentive *not* to clear native habitats). This approach might be seen as overly harsh by owners of large disturbed tracts whose expectations are for urban development rather than agriculture.

7. Conservation clustering with incentives

The second hybrid technique, conservation clustering with incentives, is similar to the first but would require only one new category for existing "Rural" lands. The new category would attempt to maintain most of the benefits of the first hybrid, but in this case using a sliding scale of density rewards to encourage (rather than *require*) conservation of undisturbed habitats.

For instance, a tract with undisturbed native habitats might maintain today's density of 1 DU/acre density if 70% of the undisturbed uplands were preserved. Those dwelling units would be placed on the remaining 30% of the land, which would be possible by using lots that are smaller than today's

one-acre standard. (Table B-1 shows that the resulting developed area, including its streets and stormwater detention areas, would use about 0.3 acres per lot, similar to many existing single-family neighborhoods on Pine Island.) If *less than 70%* of the uplands were preserved, the allowable density would decrease, as shown in the table. If no undisturbed uplands were preserved, the residential density would drop to 1 DU/10 acres.

TABLE B-1

Assume % of native land saved or restored	Would then be assigned this gross density:	RESULTS ON 100 ACRES WOULD BE:			
		# of DUs	acres used per lot	total acres preserved	total acres used
0%	1 DU per 10 acres	10	10.0 acres	0	100
5%	1 DU per 9 acres	11	8.6 acres	5	95
10%	1 DU per 8 acres	13	7.2 acres	10	90
15%	1 DU per 7 acres	14	6.0 acres	15	85
20%	1 DU per 6 acres	17	4.8 acres	20	80
30%	1 DU per 5 acres	20	3.5 acres	30	70
40%	1 DU per 4 acres	25	2.4 acres	40	60
50%	1 DU per 3 acres	33	1.5 acres	50	50
60%	1 DU per 2 acres	50	0.8 acres	60	40
70%	1 DU per 1 acre	100	0.3 acres	70	30

Table B-2 shows another variation which would require preservation of 85% of native lands in order to maintain today's density of 1 DU/acre. Under this scenario, the resulting developed areas would be limited to the remaining 15% of the land, whose developed area, including its streets and stormwater detention areas, would use about 0.15 acres per dwelling unit. At this density, the dwelling units might be in the form of townhouses or garden apartments.

TABLE B-2

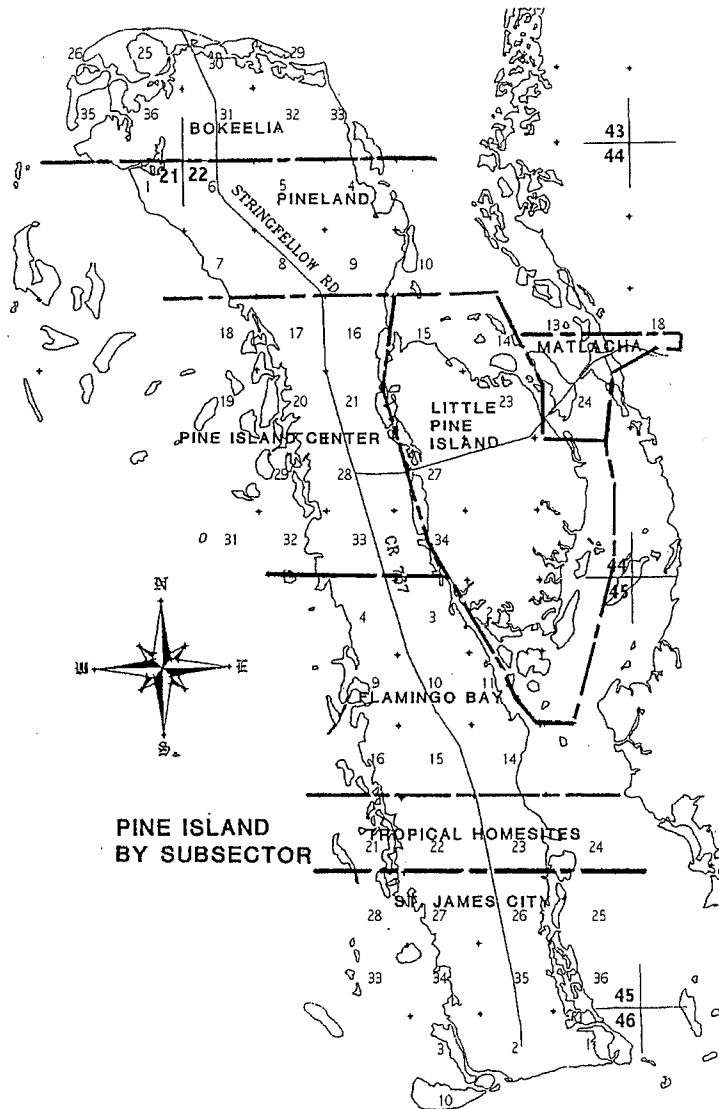
Assume % of native land saved or restored	Would then be assigned this gross density:	RESULTS ON 100 ACRES WOULD BE:			
		# of DUs	acres used per lot	total acres preserved	total acres used
0%	1 DU per 10 acres	10	10.00 acres	0	100
5%	1 DU per 9 acres	11	8.55 acres	5	95
15%	1 DU per 8 acres	13	6.80 acres	15	85
25%	1 DU per 7 acres	14	5.25 acres	25	75
35%	1 DU per 6 acres	17	3.90 acres	35	65
45%	1 DU per 5 acres	20	2.75 acres	45	55
55%	1 DU per 4 acres	25	1.80 acres	55	45
65%	1 DU per 3 acres	33	1.05 acres	65	35
75%	1 DU per 2 acres	50	0.50 acres	75	25
85%	1 DU per 1 acre	100	0.15 acres	85	15

This technique would also allow credits for restoration of native habitats on previously disturbed lands. The same benefits would be granted to restored land as to preserved land, using the same sliding scale.

The positive features of conservation clustering with incentives are that it diminishes the potential for residential development on agricultural land, while rewarding landowners who protect (or restore) their land's natural habitats. As with the first hybrid, actual development on undisturbed habitats would disturb far less land than would occur today by either allowing today's number of dwelling units to be placed on smaller lots, or by reducing the number of lots that are allowable. Public purchases of entire tracts for preservation would still be desirable, but regardless, this plan would encourage more preservation than current regulations.

As with the dual-classification hybrid, it will seem counter-intuitive to many to allow higher densities on natural habitats than on disturbed lands (although this serves as an incentive *not* to clear native habitats). This approach might be seen as overly harsh by owners of large disturbed tracts whose expectations are for urban development rather than agriculture. Also, since clearing of native habitats would not be prohibited, if landowners don't find the density rewards to be sufficiently valuable, the result might be the loss of remaining undisturbed lands on Pine Island.

APPENDIX C: EXISTING AND APPROVED LOTS



Section	Town ship	Range	Existing Dwelling Units	Total Platted Lots	Additional Units
Bokeelia sector:					
26	43	21	0	2	2
25	43	21	158	163	5
30	43	22	459	607	148
29	43	22	0	2	2
35	43	21	2	4	2
36	43	21	6	20	14
31	43	22	252	526	274
32	43	22	37	407	370
33	43	22	0	4	4
Bokeelia subtotals:			914	1,735	821
Pineland sector:					
1	44	21	0	4	4
6	44	22	167	665	498
5	44	22	23	313	290
4	44	22	0	8	8
7	44	22	62	312	250
8	44	22	42	475	433
9	44	22	27	244	217
10	44	22	1	1	0
Pineland subtotals:			322	2,022	1,700
Pine Island Center sector:					
18	44	22	0	0	0
17	44	22	35	138	103
16	44	22	180	502	322
15	44	22	0	0	0
19	44	22	0	0	0
20	44	22	2	23	21
21	44	22	363	838	475
29	44	22	0	10	10
28	44	22	288	686	398
27	44	22	0	6	6
31	44	22	0	0	0
32	44	22	2	2	0
33	44	22	3	42	39
34	44	22	0	22	22
P.I. Center subtotals:			873	2,269	1,396

Matlacha sector:

14	44	22	66	67	1
13	44	22	41	77	36
18	44	23	109	151	42
23	44	22	24	40	16
24	44	22	455	694	239
Matlacha subtotals:			695	1,029	334

Flamingo Bay sector:

4	45	22	31	245	214
3	45	22	82	219	137
2	45	22	0	2	2
9	45	22	240	240	0
10	45	22	490	492	2
11	45	22	0	11	11
16	45	22	0	5	5
15	45	22	26	92	66
14	45	22	0	24	24
Flamingo Bay subtotals:			869	1,330	461

Tropical Homesites sector:

21	45	22	0	0	0
22	45	22	26	68	42
23	45	22	233	645	412
24	45	22	0	0	0
Tropical Homesites subtotals:			259	713	454

St. James City sector:

28	45	22	0	0	0
27	45	22	1	5	4
26	45	22	12	58	46
25	45	22	0	0	0
33	45	22	1	1	0
34	45	22	11	111	100
35	45	22	323	859	536
36	45	22	0	0	0
3	46	22	0	3	3
2	46	22	1,163	1,877	714
1	46	22	194	299	105

Section	Town ship	Range	Existing Dwelling Units	Total Platted Lots	Additional Units
10	46	22	0	0	0
St. James City subtotals:			1,705	3,213	1,508
Greater Pine Island totals:			5,637	12,311	6,674

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ADDENDUM E

IMPLEMENTING POLICIES 1.4.7 & 14.1.8

IMPLEMENTING POLICIES 1.4.7 & 14.1.8

NEW LEE PLAN POLICY 1.4.7:

POLICY 1.4.7: The Coastal Rural areas will remain rural except for portions of proper ties where residential lots are permitted in exchange for permanent preservation or restoration of native upland habitats on the remainder of the property. The standard maximum den sity is one dwelling unit per ten acres (1DU/10 acres). Maximum densities may increase as higher percentages of native habitat are permanen tly preserved or restored on the uplands portions of the site in accordance with the chart below. Permitted land uses include agriculture, fill-dirt extraction, conservation uses, and residenti al uses up to the following densities:

<u>Percentage of the on site uplands that are preserved or restored native habitats</u>	<u>Maximum density</u>
0%	1 DU/ 10 acres
5%	1 DU/ 9 acres
10%	1 DU/ 8 acres
15%	1 DU/ 7 acres
20%	1 DU/ 6 acres
30%	1 DU/ 5 acres
40%	1 DU/ 4 acres
50%	1 DU/ 3 acres
60%	1 DU/ 2 acres
70%	1/ DU/ 1 acre

NEW LEE PLAN POLICY 14.1.8:

POLICY 14.1.8: The county reclassified all uplands on Pine Island previously designated as Rural to a new Coastal Rural designation on the Future Land Use Map. The purposes of this redesignation was to provide a clearer separation between rural and urban uses on P ine Island, to discourage the unnecessary destruction of native upland habitats , and to avoid placing more dwelling units on Pine Island that can be s erved by the limited road capacity to the mainland. The Coastal Rural designation is designed to provide land owners wit h maximum flexibility while accomplishing these public purposes.

SUMMARY OF CODE CHANGES NEEDED TO IMPLEMENT THESE POLICIES:

- a. Modify 34-2 – CORRECT THE DEFINITION OF GREATER PINE ISLAND IN 34-2
- b. Modify Tables 34-654, 34-695 and 34-715 – PROVIDE NEW FOOTNOTES TO THESE TABLES REGARDING NEW MINIMUM LOT SIZES IN "COASTAL RURAL"
- c. Create 34-655 – CREATE A NEW SECTION TO DEFINE THE EFFECT OF THE "COASTAL RURAL" DESIGNATION ON LAND DEVELOPMENT
- d. Modify 34-1495(c) – PROVIDE CROSS-REFERENCES AND MAINTAIN CONSISTENCY WITH OTHER CODE CHANGES

- e. Modify 34-3273 – ADD LANGUAGE THAT ALLOWS CONSTRUCTION OF ONE HOME IN “COASTAL RURAL” ON EACH LOT THAT WAS CREATED PRIOR TO THIS PLAN (WITHOUT SPECIAL RULES FOR PRESERVATION OR RESTORATION)

COMPOSITE CODE CHANGES TO IMPLEMENT THESE POLICIES:

CHAPTER 34
Zoning
ARTICLE I, IN GENERAL

Sec. 34-2. Definitions.

The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

...

Greater Pine Island means all of Pine Island, Little Pine Island, West Island, Porpoise Point Island and other small adjacent islands, more particularly described as follows: Sections 25, 26, 35 and 36, Township 43 South, Range 21 East; also Sections 28, 29, 30, 31, 32, and 33 and 34, Township 43 South, Range 22 East; also Sections 1, 12, 24 and 25, Township 44 South, Range 21 East; also, all of Township 44 South, Range 22 East, less Sections 1, 2, 11, 12, 13; and 24, and less those portions of Section 13 lying in the City of Cape Coral; and certain portions of Section 24, lying northeast or toward the mainland from Porpoise Point Island; also, those portions of Section 18 of Township 44 South, Range 23 East lying outside the City of Cape Coral; also, all of Township 45 South, Range 22 East, except those portions of Sections 12, 13 and 24, lying on the mainland; also, Sections 1, 2, 3, 4, 5, 9, 10, 11 and 12, Township 46 South, Range 22 East; also Sections 6 and 7, Township 46 South, Range 23 East.

...

[no other changes to section 34-2]

CHAPTER 34
Zoning
ARTICLE VI, DISTRICT REGULATIONS
Division 2, Agricultural Districts

Sec. 34-651. Purpose and intent.

The purpose of the agricultural districts is to provide areas for the establishment or continuation of agricultural operations, with residential uses being permitted only as ancillary to agricultural uses, and to accommodate those individuals who understand and desire to live in an agricultural environment.

Sec. 34-652. Applicability of use and property development regulations.

No land, body of water or structure may be used or permitted to be used and no structure may hereafter be erected, constructed, moved, altered or maintained in the AG districts for any purpose other than as provided in section 34-653, pertaining to use regulations for agricultural districts, and section 34-654, pertaining to property development regulations for agricultural districts, except as may be specifically provided for in article VIII (nonconformities) of this chapter, or in section 34-620.

Sec. 34-653. Use regulations table.

Use regulations for agricultural districts are as follows:

**TABLE 34-653. USE REGULATIONS
FOR AGRICULTURAL DISTRICTS**

[no changes required]

Sec. 34-654. Property development regulations table.

Property development regulations for agricultural districts are as follows:

TABLE 34-654. PROPERTY DEVELOPMENT REGULATIONS FOR AGRICULTURAL DISTRICTS

	Special Notes or Regulations	AG-1	AG-2	AG-3
Minimum lot dimensions and area:	Note (1)			
Minimum lot area:	Notes (2) and (6)			
Interior lot	34-2221, 34-2222	4.7 acres	39,500 sq. ft.	20,000 sq. ft.
Corner lot	34-2221, 34-2222	4.4 acres	33,600 sq. ft.	20,000 sq. ft.
Minimum lot width (feet)		300	100	100
Minimum lot depth (feet)		300	130	130
Minimum setbacks:				
Street (feet)	Notes (3) and (4), 34-2191 et seq., 34-1261 et seq.	Variable according to the functional classification of the street or road (see section 34-2192), but in no case less than 50 feet in the AG-1 district.		
Side yard (feet)		25	15	15
Rear yard (feet)	34-2191 et seq.	25	25	25
Water body (feet):	34-2191 et seq.			
Gulf of Mexico		50	50	50
Other		25	25	25
Special regulations:				
Animals, reptiles, marine life	34-1291 et seq.			
Consumption on premises	34-1261 et seq.			
Docks, seawalls, etc.	34-1863 et seq.			
Essential services	34-1611 et seq.			
Essential service facilities (34-622(c)(13))	34-1611 et seq., 34-2142			
Fences, walls, gatehouses, etc.	34-1741 et seq.			
Nonroofed accessory structures	34-2194(c)			
Railroad right-of-way	34-2195			
Maximum height (feet)	34-2171 et seq.	35	35	35
	Note: Bonita Beach, Captiva, Estero and San Carlos Islands, Gasparilla Island conservation district, Greater Pine Island and areas within the airport hazard zone have special limitations (see section 34-2175).			
Maximum lot coverage (percent of total lot area)		25%	25% (5)	25%

Notes:

- (1) Certain projects in agricultural districts may fall within the density reduction/groundwater resource areas of the Lee Plan. In such areas, additional density and use restrictions are applicable. Permitted land uses in density reduction/groundwater resource areas include agriculture, mineral or limerock extraction, conservation uses, and residential uses at a maximum density of one dwelling unit per ten acres. Individual residential parcels may contain up to two acres of wetlands without losing the right to have a dwelling unit, provided that no alterations are made to those wetlands.
- (2) Any lot created in the Rural Community Preserve land use category (as delineated by policy 17.1.3 of the Lee Plan) after July 9, 1991, must have a minimum area of 43,560 square feet excluding all street rights-of-way.
- (3) Modifications to required setbacks for collector or arterial streets, or for solar or wind energy purposes, are permitted only by variance. See section 34-2191 et seq.
- (4) Special street setback provisions apply to portions of Colonial Boulevard and Daniels Road. Refer to section 34-2192(b)(3) and (4).
- (5) For nonconforming lots, as defined in section 34-3271, the maximum lot coverage will be 40 percent.
- (6) All lots in the Coastal Rural land use category in Greater Pine Island (as delineated by policies 1.4.7 and 14.1.8 of the Lee Plan) that are created after [effective date of plan update] must comply with the additional regulations in section 34-655. Lots created before [effective date of plan update] do not need to comply with the additional regulations in section 34-655 (see section 34-3273(a)(3)).

Sec. 34-655. Greater Pine Island.

(a) Purpose and intent. In 2003 Lee County reclassified most rural lands in Greater Pine Island to a new Coastal Rural designation on the Future Land Use Map. This designation provides landowners with flexibility while accomplishing the following public purposes:

- (1) To provide a clearer separation between rural and urban uses on Greater Pine Island;
- (2) To discourage the unnecessary destruction of native upland habitats; and
- (3) To avoid placing more dwelling units on Pine Island that can be served by the limited road capacity to the mainland.

(b) Conversion from rural land uses. The Coastal Rural areas will remain rural except for portions of properties where residential lots are permitted in exchange for permanent preservation or restoration of native upland habitats on the remainder of the property. The standard maximum density established by the Lee Plan is one dwelling unit per ten acres (1 DU/10 acres). Maximum densities may increase as higher percentages of native habitat are permanently preserved or restored on the uplands portions of the site in accordance with Table 34-655.

(c) Interpreting Table 34-655. For purposes of interpreting Table 34-655, the following standards apply:

- (1) Table 34-655 contains two columns of adjusted maximum densities:
 - a. The first density column, titled "If < 910 trips in Matlacha," indicates the adjusted maximum densities that correspond to various levels of uplands preservation or restoration during the time period *before* the restrictions in section 2-4(3) of this code take effect.
 - b. The second density column, titled "If > 910 trips in Matlacha," indicates the adjusted maximum densities that correspond to various levels of uplands preservation or restoration for the time period *after* the restrictions in section 2-4(3) of this code have taken effect. [NOTE: four alternatives are shown in this draft for this second density column]

**TABLE 34-655.
ADJUSTED MAXIMUM DENSITY**

Percentage of the on-site uplands that are preserved or restored native habitats	-----Adjusted Maximum Density-----				
	If < 910 trips in Matlacha:	-----If > 910 trips in Matlacha:-----			
		<i>Alternative A:</i>	<i>Alternative B:</i>	<i>Alternative C:</i>	<i>Alternative D:</i>
0% to 4.99%	1 DU/10 acres	1 DU/ 30 acres	1 DU/ 24 acres	1 DU/ 17 acres	1 DU/10 acres
5% to 9.99%	1 DU/ 9 acres	1 DU/ 27 acres	1 DU/ 21 acres	1 DU/ 15 acres	1 DU/ 9 acres
10% to 14.99%	1 DU/ 8 acres	1 DU/ 24 acres	1 DU/ 18 acres	1 DU/ 13 acres	1 DU/ 8 acres
15% to 19.99%	1 DU/ 7 acres	1 DU/ 21 acres	1 DU/ 16 acres	1 DU/ 12 acres	1 DU/ 7 acres
20% to 29.99%	1 DU/ 6 acres	1 DU/ 18 acres	1 DU/ 14 acres	1 DU/ 10 acres	1 DU/ 6 acres
30% to 39.99%	1 DU/ 5 acres	1 DU/ 15 acres	1 DU/ 11 acres	1 DU/ 8 acres	1 DU/ 5 acres
40% to 49.99%	1 DU/ 4 acres	1 DU/ 12 acres	1 DU/ 9 acres	1 DU/ 7 acres	1 DU/ 4 acres
50% to 59.99%	1 DU/ 3 acres	1 DU/ 9 acres	1 DU/ 7 acres	1 DU/ 5 acres	1 DU/ 3.5 acres
60% to 69.99%	1 DU/ 2 acres	1 DU/ 6 acres	1 DU/ 5 acres	1 DU/ 4 acres	1 DU/ 3.0 acres
70% or more	1 DU/ 1 acre	1 DU/ 3 acres	1 DU/ 2.8 acres	1 DU/ 2.7 acres	1 DU/ 2.5 acres

- (2) The left column in Table 34-655 describes the percentage of on-site uplands that must be permanently preserved or restored as native habitats in order to increase the standard maximum density on the entire property.
- a. Land uses are restricted in permanently preserved native habitat in accordance with subsection (d) below, and in restored native habitat in accordance with subsection (e) below.
 - b. New roads and surface water management systems, including retention/detention lakes, berms, and ditches, may not be placed in the preserved or restored portion of the on-site uplands except as provided by subsection (d) below.
 - c. All percentages in the left column in Table 34-655 are based on the acreage of uplands that are designated "Coastal Rural."
 1. Lands that are designated "Wetlands" rather than "Coastal Rural" on the Future Land Use Map are not counted either in the base acreage or in the preserved or restored acreage. However, the additional dwelling units that the Lee Plan allows for lands designated "Wetlands" (1 DU/20 acres) may be added to the number of dwelling units allowed for uplands by Table 34-655, provided that the conservation easement described in subsection (d) includes those wetlands.
 2. Lands that are designated "Coastal Rural" but which are determined by permitting agencies to be wetlands are counted in the base acreage and may be counted as permanently preserved native habitat or restored native habitat provided that all requirements of this section are met.
- (3) Two or more contiguous or noncontiguous "Coastal Rural" parcels may be combined into a single development application for purposes of computing the actual maximum density allowed on those properties. This provision would allow preserved or restored acreage on one parcel to increase the density on another parcel that is included in the same development application. However, the resulting density on any single parcel or on any contiguous parcels may not exceed one dwelling unit per acre (1 DU/1 acre).
- (4) A proposed development on land that is zoned AG-2 and is designated Coastal Rural by the Lee Plan is not required to rezone the property provided that the proposed development complies with all regulations in this code, including all of section 34-655. The determination of actual maximum densities and the compliance of the application and its supporting documentation with this section may be confirmed during the development order process described in ch. 10.
 - (5) A proposed development that would deviate from this code, except for administrative deviations in accordance with section 10-104, must seek approval through the "planned development" rezoning process prior to obtaining a development order pursuant to ch. 10.
 - a. Deviations or variances can never be granted to increase the densities in Table 34-655.
 - b. Example of deviations that can be considered during the "planned development" process include:
 1. Permitted uses and property development regulations other than those provided in subsection (f) of this section;
 2. Alternative methods of committing to preservation or restoration of native habitat;
 3. Substitution of permanent reforestation that doesn't meet all of the requirements of this section for "permanently preserved native habitats" or "restored native habitats."
 4. Infrastructure more suited to country living, such as narrower streets, alternative paving materials, stormwater management systems that promote infiltration of runoff, etc.

(d) Permanently preserved native habitats. For the purposes of this section, “permanently preserved native habitat” means uplands that the landowner guarantees will be preserved as native habitat that will remain permanently as open space, in exchange for increasing the standard maximum residential density on the entire property, with all residential units placed on other uplands. A development proposal under this section must be accompanied by plans and supporting documentation that demonstrate compliance with the following requirements:

- (1) Land uses in preserved habitat. No portion of the native habitats that are counted as preserved for the purposes of Table 34-655 may overlap individual lots or parcels on which development is permitted.
 - a. Portions of these native habitats may be used as buffer strips and wooded portions of golf courses provided those areas have a minimum dimension of 25 feet and are protected by the same conservation easement as the remainder of the native habitat.
 - b. Permanently preserved native habitat may contain up to the following percentages:
 1. Facilities for passive recreation such as hiking trails, bridle paths, boardwalks, or fishing piers, up to 2% of the preserved or restored area.
 2. Lakes, up to 5% of the preserved or restored area.
 3. Commercial or non-commercial agriculture, up to 10% of the preserved or restored area.
- (2) Hydrologic restoration. Interruptions of original water flows must be corrected to ensure proper hydrologic conditions for the long-term survival of the permanently preserved native habitat. For instance, ditches or berms that interfere with natural surface and ground water flows must be eliminated (unless mitigation is possible, for instance by placing multiple culverts through berms to restore sheet flows).
- (3) Removal of invasive exotic plants. The following highly invasive exotic plants

must be removed from the area being preserved. Methods to remove and control invasive exotic plants must be included on the development order plans. For purposes of this subsection, invasive exotic plants to be removed include:

- a. Melaleuca (*Melaleuca quinquenervia*)
- b. Brazilian pepper (*Schinus terebinthifolius*)
- c. Australian pine (*Casuarina* spp.)
- d. All other Category I invasive exotic species listed by the Florida Exotic Pest Plant Council.

- (4) Conservation easement. The guarantee of preservation must include a perpetual conservation easement granted to a governmental body or agency or to a qualified charitable corporation or trust whose purposes include protecting natural, scenic, or open space values of real property.
 - a. This conservation easement must be a right or interest in real property which is appropriate to retaining the land in predominantly its natural forested condition as suitable habitat for native vegetation and wildlife in accordance with this section and which prohibits or limits the activities described in F.S. § 704.06, as such provisions now exist or as may be amended.
 - b. The agency or entity accepting the easement must have its principal place of business or a permanent branch office in Charlotte, Lee, or Collier County.
 - c. This agency or entity must explicitly consent to enforce the easement’s obligations in perpetuity.
 - d. The guarantee of preservation may take a different form if it provides equivalent protection and is approved by Lee County through a deviation in a planned development rezoning.
- (5) Management plan. The guarantee of preservation must also include a fully funded long-term management plan that will accomplish the following goals for the area being preserved:
 - a. The open space must be maintained in perpetuity against the reestablishment

- of invasive exotic plants and must be kept free of refuse, debris, and pests.
- b. The open space must be managed to maintain a mosaic of plant and habitat diversity typical of the ecological community being preserved. A reference source describing the native habitats found in Greater Pine Island is available in chapter 3 of the Multi-Species Recovery Plan for South Florida, published by the U.S. Fish & Wildlife Service.
 - c. The management plan shall describe acceptable forest management practices such as prescribed burning, selective thinning, and replanting. If the management plan does not include prescribed burning to mimic the historic fire regime, the plan must propose an alternative method for selectively thinning flammable understory plants.

(6) Ownership of preserved habitats. The underlying ownership of these permanently preserved native habitats may be transferred to a homeowners' or condominium association or may be retained by the original landowner or another private party.

- a. If the ownership of this land and the management commitments are to be transferred to a homeowners' or condominium association, this transfer must be accomplished through a covenant that runs with the land in the form of, but not limited to, a homeowners' or condominium association or such other legal mechanisms as will guarantee that the permanently preserved native habitats will be managed in accordance with these regulations. Legal documents that provide for the continued management will be accepted only after they are reviewed and approved by the county attorney's office as complying with this section.
- b. Alternatively, a landowner who wishes to retain ownership of this land or convey it to a different party must present evidence of a permanent funding source to carry out the

management responsibilities, which may include bonds or trust funds sufficient to pay for the ongoing management in accordance with these regulations. Legal documents that provide for the continued management will be accepted only after they are reviewed and approved by the county attorney's office as complying with this section.

(e) *Restored native habitats.* For the purposes of this section, "restored native habitat" means uplands that the landowner commits to restoring and permanently preserving as open space in exchange for increasing the standard maximum residential density on the entire property, with all residential units placed on other uplands. The restoration goal is to initiate the re-creation of native habitats that had been typical of Greater Pine Island and to establish conditions suitable to their long-term maturation and regeneration. Restored native habitats must meet all of the requirements of section 34-655(d), plus the following requirements:

- (1) **Hydrologic restoration.** In addition to the correction of interruptions of original water flows as described in subsection (d)(2) above, the site's hydrologic regime must be appropriate for the ecological community being restored. A reference source describing the native habitats found in Greater Pine Island and their natural hydrologic conditions is available in chapter 3 of the Multi-Species Recovery Plan for South Florida, published by the U.S. Fish & Wildlife Service.
- (2) **Reintroduction of native trees.** Native trees must be planted and must be of species typical of the native habitat being recreated, as set forth in the Multi-Species Recovery Plan. For example, the dominant tree species in mesic pine flatwoods, the most common native upland habitat on Pine Island, will be longleaf and slash pines.
 - a. Site preparation must include removal of non-native vegetation that will compete with newly planted trees.
 - b. Trees must be planted in clusters or random patterns rather than rows.

Bare-root or containerized seedlings may be planted using standard forestry techniques. The target density of trees is between 50 and 200 trees per acre, depending on species and the type of habitat being recreated.

- c. Fertilization may be required at time of planting to ensure survival of seedlings. Weed control is required for at least two years after planting.

(3) Reintroduction of native midstory shrubs and understory plants. In addition to the introduction of native pine trees as mentioned in subsection (2) above, midstory and understory species shall be planted.

- a. These species shall include at least five of the following:

1. wiregrass (*Aristida stricta* var. *beyrichiana*),
2. tarflower (*Bejaria racemosa*),
3. wax myrtle (*Myrica cerifera*),
4. fetterbush (*Lyonia lucida*),
5. rusty lyonia (*Lyonia ferruginea*),
6. gallberry (*Ilex glabra*),
7. saw palmetto (*Serenoa repens*), or
8. cabbage palm (*Sabal palmetto*).

- b. Additional native species may be substituted for the species listed above with the consent of the Florida Department of Environmental Protection, the Southwest Florida Water Management District the Florida Fish and Wildlife Conservation Commission, or Lee County.

- c. No single species should comprise more than 25% of the total number of plants installed.

- d. At least 50% of the acreage being restored must be planted with midstory and understory plants.

1. Plants should be placed in groupings or clusters throughout the area to be restored at an average spacing of 3 feet.
2. Plants to be used should consist of containerized plants or tubelings of not less than 4½ inches in depth.

- e. Site preparation may be necessary to adequately prepare the site for planting. Site preparation may include

such activities as roller chopping, bush hogging, prescribed burning, herbiciding, or other recognized vegetation management activities.

(4) Criteria for success of restoration.

Plantings of native trees and midstory and understory plants shall be monitored annually to assure a minimum 80% survival of the required number of each species planted.

- a. Monitoring shall be performed for a minimum of three years after initial planting.

1. Monitoring shall be done by a qualified biologist, ecologist, forester, or natural areas manager.
2. Monitoring shall consist of transects or fixed area plots placed in a uniform grid pattern throughout the restoration site.
3. Enough plots or transects shall be placed to achieve an accuracy level of +/- 10% at an 80% confidence interval.

- b. If the survival falls below 80% for a particular species, that species or another species permitted above shall be replanted to achieve at least the 80% threshold.

- c. Annual monitoring reports shall be submitted to the director. After reviewing a monitoring report for the third or later year for methodology and accuracy, the director is authorized to issue a finding that the restoration has been successfully completed and that no further monitoring reports are required, or that restoration has been partially completed and that monitoring reports are required only for the incomplete portion of the restoration.

- (5) Financial guarantees.** If a landowner wishes to begin development prior to successful completion of the restoration, completion must be assured in the same manner that off-site improvements or on-site subdivision improvements may be guaranteed pursuant to section 10-154 of this code.

(f) Flatwoods restoration bank. As an additional alternative to restoring native habitats on-site or on contiguous or non-contiguous parcels combined into a single development application, Lee County may adopt an administrative code that sets forth the requirements for a third party to preserve or restore degraded upland habitats on large parcels on Pine Island. Credits for this restoration work could be sold to other landowners in Greater Pine Island who wish to increase their allowable density in accordance with Table 34-655.

- (1) The restored land must meet all of the conditions for restored native habitats in subsection (e) in addition to the requirements of the administrative code.
- (2) The administrative code will determine the assignment of restoration credits in a manner that is proportional to the ecological value of the restoration. Credits can sold once the restoration has proven successful according to criteria set forth in the code
- (3) Lee County will not be involved in any way in establishing the financial value of restoration credits.

(g) Development standards. If a landowner chooses to increase the standard maximum density of "Coastal Rural" land as provided by this section, the following standards will govern the portion of the property that may be developed.

- (1) General standards: All requirements of this code remain in effect except as modified through the "planned development" rezoning process or as otherwise provided in this section.
- (2) Permitted uses and property development regulations:
 - a. Individual lots that exceed all size and dimensional requirements for lots in an AG-2 zoning district are governed by all regulations for the AG-2 district, including permitted uses and property development regulations.
 - b. Individual lots that do not meet all size and dimensional requirements for lots in an AG-2 zoning district are governed by all regulations for the RS-1 zoning district, including permitted uses and property development regulations.

c. The portion of the site being preserved will be governed by the standards in this section.

(3) Local street standards:

- a. Section 10-296(d) of this code provides standards for new local streets that vary based on residential density levels. For development orders that subdivide residential lots from "Coastal Rural" land, these local street standards will be interpreted as follows:
 1. "Category C" streets must be provided for residential lots that are smaller than 2.5 acres.
 2. "Category D" streets may be provided in lieu of Category C streets for residential lots that are larger than 2.5 acres.
- b. Right-of-way and lane widths for local streets may be narrower than the standards set forth in section 10-296 for Category C and Category D streets provided the widths are selected in accordance with the criteria in *Traditional Neighborhood Development Street Design Guidelines* or *Neighborhood Street Design Guidelines* (or successor recommended practices) published by the Institute of Transportation Engineers.
- c. Local streets defined by section 10-296 as Category C streets may have a wearing surface of porous (pervious) asphalt or concrete, in lieu of the other surface options provided in chapter 10. Porous paving can increase the infiltration of stormwater and reduce the need for separate stormwater infrastructure.
- d. Dead-end streets are generally not permitted but may be unavoidable due to adjoining wetlands, canals, or preserved areas. When the director deems a dead-end street to be unavoidable, the dead end must be provided with a cul-de-sac or other termination that is designed in accordance with these same criteria.

(4) Locational standards: The following approach and guidelines must be used to determine the best locations for area on the site to be preserved and to be developed:

- a. Begin by identifying potential areas to remain as open space: healthy, diverse, or unusual vegetation (such as mature pine trees, oak hammocks, or dense saw palmetto); listed species habitat; historic/archaeological sites; unusual landforms; wet or transitional areas; etc.
- b. Then identify potential areas for homesites: locations near existing developed areas or adjoining existing streets (or logical street extensions); areas with fewer natural resource values; areas that can be served with minimal extensions of infrastructure; areas that would provide views of preserved open spaces; etc.

Secs. 34-6565--34-670. Reserved.

ADDENDUM F

CHAPTER 34

ZONING

CHAPTER 34
Zoning
ARTICLE VI, DISTRICT REGULATIONS
Division 3, Residential Districts

Sec. 34-695. Property development regulations table.

Property development regulations for one- and two-family residential districts are as follows:

**TABLE 34-695. PROPERTY DEVELOPMENT REGULATIONS
FOR ONE- AND TWO-FAMILY RESIDENTIAL DISTRICTS**

	Special Notes or Regulations	RSC-1	RSC-2	RSA	RS-1	
Minimum lot area and dimensions:	34-2221, 34-2222, 34-2142					[all other districts remain unchanged]
Single-family detached:	<u>Note 5</u>					
Lot area (square feet)		4,000	43,560	6,500	7,500	
Lot width (feet)		40	100	65	75	
Lot depth (feet)		75	200	75	100	
Duplex: [no changes required]						
Two-family attached: [no changes required]						
Minimum setbacks: [no changes required]						
Special regulations: [no changes required]						
Maximum height (feet) [no changes required]						
Maximum lot coverage (percent of total lot area) [no changes required]						

Notes:

- (1) Modifications to required setbacks for collector or arterial streets, or for solar or wind energy purposes, are permitted by variance only. See section 34-2191 et seq.
- (2) Special street setbacks apply to portions of Colonial Boulevard and Daniels Road. Refer to section 34-2192(b).
- (3) Accessory buildings and uses can be located closer to the front of the property than the main building, but must comply with all other setback requirements for accessory building uses.
- (4) No side yard setback required from common side lot line for two-family attached.
- (5) All lots in the Coastal Rural land use category in Greater Pine Island (as delineated by policies 1.4.7 and 14.1.8 of the Lee Plan) that are created after [effective date of plan update] must comply with the additional regulations in section 34-655. Lots created before [effective date of plan update] do not need to comply with the additional regulations in section 34-655 (see section 34-3273(a)(3)).

Sec. 34-715. Property development regulations table.

Property development regulations for multiple-family residential districts are as follows:

TABLE 34-715. PROPERTY DEVELOPMENT REGULATIONS FOR MULTIPLE-FAMILY RESIDENTIAL DISTRICTS

	Special Notes or Regulations	RM-2	RM-3	RM-6	RM-8	RM-10
Minimum lot area and dimensions:	34-1493, 34-1494, 34-2221, 34-2222, 34-2142					
Single-family detached: <i>[no other changes required]</i>	<u>Note 7</u>	<i>[no changes required]</i>	<i>[no changes required]</i>	<i>[no changes required]</i>	<i>[no changes required]</i>	<i>[no changes required]</i>
Duplex, two-family, townhouse: <i>[no other changes required]</i>	<u>Note 7</u> 34-713	<i>[no changes required]</i>	<i>[no changes required]</i>	<i>[no changes required]</i>	<i>[no changes required]</i>	<i>[no changes required]</i>
Multiple-family: <i>[no other changes required]</i>	<u>Note 7</u>	<i>[no changes required]</i>	<i>[no changes required]</i>	<i>[no changes required]</i>	<i>[no changes required]</i>	<i>[no changes required]</i>
Nonresidential uses: <i>[no changes required]</i>		<i>[no changes required]</i>	<i>[no changes required]</i>	<i>[no changes required]</i>	<i>[no changes required]</i>	<i>[no changes required]</i>
Minimum setbacks: <i>[no changes required]</i>						
Special regulations: <i>[no changes required]</i>						
Maximum height (feet) <i>[no changes required]</i>						
Maximum lot coverage (percent of total lot area) <i>[no changes required]</i>						

Notes:

- (1) Minimum lot size is 6,500 square feet. However, the maximum permitted density shall not exceed the density permitted for the land use category in which the property is located.
- (2) Minimum lot size is 7,500 square feet. However, the maximum permitted density shall not exceed the density permitted for the land use category in which the property is located.
- (3) 14,000 square feet for the first two dwelling units plus 6,500 square feet for each additional dwelling unit in the same building.
- (4) Modifications to required setbacks for arterial or collector streets, or for solar or wind energy purposes, are permitted only by variance. See section 34-2191 et seq.
- (5) Special street setbacks apply to portions of Colonial Boulevard and Daniels Road. Refer to section 34-2192(b).
- (6) No side setback is required from common lot line for two-family attached or townhouse.
- (7) All lots in the Coastal Rural land use category in Greater Pine Island (as delineated by policies 1.4.7 and 14.1.8 of the Lee Plan) that are created after [effective date of plan update] must comply with the additional regulations in section 34-655. Lots created before [effective date of plan update] do not need to comply with the additional regulations in section 34-655 (see section 34-3273(a)(3)).

CHAPTER 34
Zoning
ARTICLE VII, SUPPLEMENTARY
DISTRICT REGULATIONS
Division 12, Density
Subdivision II, Residential Development

Sec. 34-1495. Density limitations for specific areas.

Except as may be specifically permitted by the Lee Plan, maximum densities are hereby limited as follows:

- (1) **Captiva Island.** Maximum density permitted on Captiva Island is three dwelling units per gross residential acre.
- (2) **Gasparilla Island.** Maximum density permitted on Gasparilla Island is three dwelling units per gross residential acre. Refer to Laws of Fla. ch. 83-385 for a description of affected properties.
- (3) **Greater Pine Island, as identified on the future land use map and described in section 34-2 of this code.**
 - a. For the Matlacha, Bokeelia and St. James City areas; which are currently classified in the Lee Plan as Urban Community, Suburban, or Outlying Suburban, future urban areas, maximum density permitted shall be as set forth for the zoning district in which located, or that which is permitted for the land use category in which located, or as further restricted in accordance with the traffic restrictions described in section 2-48, whichever is lower.
 - b. For all other areas:
 1. No land, except as provided in subsection (3)a of this section, shall be rezoned to any zoning district permitting more than three dwelling units per gross acre or as further restricted by:
 - i the land use category in which the property is located, or
 - ii in accordance with the traffic restrictions described in section 2-48.
 2. Land currently zoned for more than three dwelling units per gross acre shall be allowed a density in excess of three dwelling units per gross acre provided that all other applicable regulations are met, and provided further that no density shall be allowed above that which is permitted for the land use category in which the property is located, or which is permitted by the zoning which was in effect for the property as of November 25, 1986, or as further restricted in accordance with the traffic restrictions described in section 2-48, whichever is lower.
 - c. With regard to Matlacha, Bokeelia, St. James City and all other areas, due to the constraints on future development posed by the limited road connections to the mainland area of the county, bonus densities of any kind are not permitted in Greater Pine Island.
 1. This prohibition includes housing density bonuses, off-site transfers from environmentally critical areas, and transfers from on-site wetlands at rates above the standard density rates for environmentally critical areas.
 2. However, this prohibition does not affect any special transfer allowances provided for Coastal Rural areas in section 34-655.

CHAPTER 34
Zoning
ARTICLE VIII, NONCONFORMITIES
Division 4, Nonconforming Lots

Sec. 34-3271. Nonconforming lot defined.

For purposes of this division, the term "nonconforming or substandard lot" means a lot of which the area, dimension or location was lawful prior to the adoption of the ordinance from which this chapter is derived, or the adoption of a revision or amendment of this chapter, and which fails by reason of such adoption, revision or amendment to conform to the requirements for the zoning district in which the lot is located.

Sec. 34-3272. Lot of record defined; general development standards.

For the purposes of this division only, a lot of record is a lot which conformed to the minimum lot size for the use permitted for that lot in its zoning district at such time that the lot was created, but which lot fails to conform to the minimum lot size requirements which are established by this chapter.

- (1) For the purpose of this division, a lot is created on such date that one of the following conditions occur:
 - a. The date that a deed for the lot is lawfully recorded in the public records of the county;
 - b. The date that a subdivision plat has been lawfully recorded in the public records of the county, if the lot is a part of the subdivision;
 - c. The date that a site plan for a development was approved by the Board of County Commissioners pursuant to resolution, as long as the development subsequently recorded a subdivision plat that has been approved by the Board of County Commissioners in the public records of the county, if the lot is a part of the subdivision; or
 - d. In the case of mobile home or recreational vehicle parks... *[no changes required]*

- (2) The remaining lot after condemnation shall be deemed a lot of record in accordance with section 34-3206.
- (3) Lots of record may be developed subject to the following provisions:
 - a. All other regulations of this chapter must be met.
 - b. No division of any parcel may be permitted which creates a lot with width, depth or area below the minimum requirements stated in this chapter, provided that abutting lots of record may be combined and redivided to create larger dimension lots as long as such recombination includes all parts of all lots, existing allowable density is not increased, and all setback requirements are met.
 - c. For mobile home or recreational vehicle lots of record, the following will also apply: *[no changes required]*
- (4) The burden of proof that the lot is legally nonconforming, and lawfully existed at the specified date, shall be with the owner.

Sec. 34-3273. Construction of single-family residence.

- (a) A single-family residence may be constructed on a nonconforming lot of record that:
 - (1) Does not comply with the density requirements of the Lee Plan, provided the owner receives a favorable single-family residence determination (also known as "minimum use determination") in accordance with the Lee Plan. Such nonconforming lots are exempt from the minimum lot area and minimum lot dimension requirements of this chapter, and it will not be necessary to obtain a variance from those requirements.
 - (2) Does comply with the density requirements of the Lee Plan, as long as the lot:
 - a. Was lawfully created prior to June 1962 and the following conditions are met:
 1. Lots existing in the AG-2 or AG-3 zoning district require a minimum width of 75 feet, a minimum depth of 100 feet and a lot area not less than 7,500 square feet.

2. Lots existing in any other zoning district which permits the construction of a single-family residence require a minimum of 40 feet in width and 75 feet in depth, and a lot area not less than 4,000 square feet.
- b. Is part of a plat approved by the Board of County Commissioners and lawfully recorded in the public records of the county after June 1962.

(3) In Greater Pine Island only, in addition to the options in subsections (a)(1) and (2), one single-family residence may be constructed on a nonconforming lot of record in the Lee Plan's "Coastal Rural" land use category (as delineated by policies 1.4.7 and 14.1.8 of the Lee Plan), provided that:

- a. The lot was created before [effective date of plan update]; and
- b. The lot would have qualified for a single-family residence determination (minimum use determination) in accordance with the Lee Plan prior to that date.

(b) The use of a nonconforming lot of record for a residential use other than a single-family dwelling unit is prohibited except in compliance with the lot width, lot depth, lot area, and density requirements for the zoning district.

(c) Neither a guest house nor servants' quarters is permitted on a single lot of record less than 7,500 square feet in area, or which is occupied by a dwelling unit or units other than one single-family residence.

(d) Minimum setbacks for structures permitted under subsections (1) or (2) above, are as follows:

- (1) Street setbacks must be in accordance with section 34-2192.
- (2) Side setbacks must be ten percent of lot width, or five feet, whichever is greater.
- (3) Rear setbacks must be one-fourth of the lot depth but do not need to be greater than 20 feet.

Sec. 34-3274. Placement of mobile home or recreational vehicle on lot. *[no changes required]*

Sec. 34-3275. Commercial or industrial use. *[no changes required]*

ADDENDUM G
IMPLEMENTING POLICY 14.1.5

IMPLEMENTING POLICY 14.1.5

RECENT CHANGES TO LEE PLAN POLICY 14.1.5:

POLICY 14.1.5: New development, including "planned development" rezoning approvals, and new subdivisions, and agriculture, that adjoining state-designated aquatic preserves and associated wetlands and natural tributaries shall provide must preserve or create a 50-foot-wide native vegetated buffer area between the development and the waterbody or associated wetlands. This requirement will not apply to existing subdivided lots. For agriculture, this requirement:

- will be implemented through the notice-of-clearing process in chapter 14 of the land development code;
- will include a requirement to use this area as a riparian forest buffer with an adjoining filter strip wherever farmland abuts wetlands; and
- if native vegetation does not currently exist, native tree cover will be established within three years of issuance of the notice of clearing.

SUMMARY OF CODE CHANGES NEEDED TO IMPLEMENT POLICY 14.1.5:

- a. "New development, including "planned development" rezoning approvals, new subdivisions, and agriculture, that adjoin state-designated aquatic preserves and associated wetlands and natural tributaries must preserve or create a 50-foot-wide native vegetated buffer area between the development and the waterbody or associated wetlands." – MODIFY 1-2, 10-416, and 34-935.
- b. "For agriculture, this requirement...will be implemented through the notice-of-clearing process in chapter 14 of the land development code..." – ADD NEW PROVISIONS TO 14-374, 14-377, and 14-312.
- c. "For agriculture, ...will include a requirement to use this area as a riparian forest buffer with an adjoining filter strip wherever farmland abuts wetlands..." – ADD NEW PROVISIONS TO 14-377 and 14-312.
- d. "For agriculture, ...if native vegetation does not currently exist, native tree cover will be established within three years of issuance of the notice of clearing. – ADD NEW PROVISIONS TO 14-377 and 14-312.

COMPOSITE CODE CHANGES TO IMPLEMENT POLICY 14.1.5:

CHAPTER 1 General Provisions

Sec. 1-2. Rules of construction and definitions.

(a) In the construction of this Land Development Code, and of all ordinances, the rules and definitions set out in this section shall be observed, unless inconsistent with the manifest intent of the Board of County Commissioners. The rules of construction and definitions in this section do not apply to any section of this Land Development Code that contains any express provisions excluding their application, or where the subject matter or context of such section may be repugnant thereto.

(b) Generally. *[no changes required]*

(c) The following words, terms and phrases, when used in this Land Development Code, will have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

...

State-designated aquatic preserves and associated wetlands and natural tributaries means:

- (1) The following aquatic preserves as designated by the state of Florida:
 - a. Gasparilla Sound-Charlotte Harbor Aquatic Preserve, and
 - b. Matlacha Pass Aquatic Preserve, and
 - c. Pine Island Sound Aquatic Preserve;
plus
- (2) All wetlands, as defined in article IV of chapter 14 of this code, that adjoin any portion of these aquatic preserves; plus
- (3) All bays, lagoons, creeks, and other waterways that adjoin any portion of these aquatic preserves, but excluding man-made canals.

For the purpose of this definition, any portion of a wetland or natural tributary lying farther than ½ mile from the nearest point in an aquatic preserve will not be deemed to be an associated wetland or natural tributary.

...

[no other changes to section 1-2]

CHAPTER 10 Development Standards ARTICLE III, DESIGN STANDARDS AND REQUIREMENTS

Division 6, Open Space, Buffering and Landscaping

Sec. 10-416. Landscape standards.

(a) *General. [no changes required]*

(b) *Building perimeter plantings. [no changes required]*

(c) *Landscaping of parking and vehicle use areas. [no changes required]*

(d) *Buffering adjacent property.*

(1) – (8) *[no changes required]*

(9) Development abutting natural waterway.

Except where a stricter standard applies for the Greater Pine Island Area (as defined in Goal 14 of the Lee Plan and as described in section 34-2 of this code), there must be a 25-foot wide vegetative buffer landward from the mean high water line of all nonseawalled natural waterways. Where a proposed new development, including planned development rezoning approvals and new or subdivisions, is located in the Greater Pine Island Area abutting state-designated aquatic preserves and associated wetlands and natural tributaries, as defined in chapter 1 of this code, the width of the required buffer will be 50 feet landward from the water body and wetlands and the applicant must preserve or plant indigenous native vegetation throughout this buffer; however, these special requirements do not apply to portions of marinas that provide direct water access, or to land that has already been lawfully subdivided into building sites.

Existing vegetation within the buffer area must be retained. The removal or control of exotic pest plants must not involve the use of heavy mechanical equipment such as bulldozers, front end loaders, or

hydraulic excavators, unless approved at the time of development order.
(10) – (11) *[no changes required]*

CHAPTER 14
Environment and
Natural Resources
ARTICLE V, TREE PROTECTION

Sec. 14-374. Definitions.

(a) The following words, terms and phrases, and their derivations, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning. When not inconsistent with the context, words in the present tense include the future and words in the singular number include the plural number. The word “shall” is always mandatory and not merely directory.

...

Greater Pine Island means the area that is affected by Lee Plan Goal 14 as depicted on the Future Land Use Map and as described in section 34-2 of this code.

...

[no other changes to section 14-374]

Sec. 14-377. Exemptions from article.

(a) This article does not apply to the following:

- (1) Removal of trees on the following lands as specified in this subsection:
 - a. This article shall not apply to the removal of trees, other than trees worthy of preservation, on lands classified as agricultural land for ad valorem taxation purposes pursuant to F.S. § 193.461(3)(b). Trees, other than trees worthy of preservation, may be removed from agriculturally zoned lands only after the owner or his agent procures a notice of clearing from the administrator (see section 14-412(i) for procedures and for special requirements that apply to proposed

agricultural activities in Greater Pine Island). However, if an application to rezone the subject lands is filed within three years from the date when the most recent notice of clearing was issued, and the rezoning is granted, the applicable minimum open space requirements of chapter 10 shall be satisfied in the following manner: *[no changes required]*

- b. Land used for bonafide agricultural purposes that meets the criteria of or has been designated as wetlands.
 - c. If the property is located in the critical areas for surface water management, and is not used for bona fide agricultural purposes, indigenous vegetation shall not be cleared in areas that serve as listed species occupied habitat as defined in chapter 10, article III, division 8. The following shall apply: *[no changes required]*
 - d. If the property is located in the critical areas for surface water management, indigenous vegetation shall not be cleared within 25 feet of the mean high-water line or ordinary high-water line, whichever is applicable, of any natural waterway listed in appendix F. Indigenous vegetation may be cleared selectively to allow the placement of docks, pipes, pumps and other similar structures pursuant to applicable county ordinances.
- (2) The removal of trees on public rights-of-way conducted by or on behalf of a federal, state, county, municipal or other governmental agency in pursuance of its lawful activities or functions in the construction or improvement of public rights-of-way or in the performance of its official duties.
 - (3) The removal of a protected tree that is dead or which has been destroyed or damaged by natural causes beyond saving or which is a hazard as the result of an act of God and constitutes an immediate peril to life and property.
 - (4) The removal of trees by duly constituted communication, water, sewer or electrical utility companies or federal, state or county agency, engineer or surveyor, working under a contract with such federal, state or county agency or when

such tree removal is done as a governmental function of such agency.

- (5) The removal of trees by duly constituted communication, water, sewer or electrical utility companies in or adjacent to a public easement or right-of-way, provided such removal is limited to those areas necessary for maintenance of existing lines or facilities or for construction of new lines or facilities in furtherance of providing utility service to its customers, and provided further that such removal is conducted so as to avoid any unnecessary damage or removal of trees.
- (6) The removal of trees protected by this article, other than a tree worthy of preservation, by a state-licensed land surveyor in the performance of his duties. The removal of trees protected by this article in a manner which requires clearing a swath of greater than three feet in width shall require approval of the administrator prior to such a removal and clearance.
- (7) The removal of protected trees on a lot zoned for single-family residential use or being used lawfully as a single-family residence or mobile home where the residence or proposed residence is located on a lot no greater than five acres in area. However, this exemption does not apply on the coastal islands listed in subsection (c) below.
- (8) The removal of protected trees, other than a tree worthy of preservation, on the premises of a licensed plant or tree nursery or tree farm where such trees are intended for sale in the ordinary course of the licensee's business.

(b) Any final development order or other final approval issued by the county which was granted after January 27, 1983, but before the effective date of the ordinance from which this article is derived may, at the discretion of the administrator, be exempted from compliance with this article, to the extent that the restrictions imposed by this article conflict with the approvals given in the final development order or other final approval, in which case the final development order or other final approval shall supersede this article as to those areas in conflict.

(c) The exemptions herein for single-family residential use in subsection (a)(7) above do not

apply to land located on the following coastal islands: Gasparilla Island, Cayo Costa Island, North Captiva Island, Captive Island, Buck Key, Greater Pine Island, Lover's Key Group of Islands, Black Island, Big Hickory Island, and Little Hickory Island (Bonita Beach).

- (1) The tree permit will be incorporated into the building permit for the site. Review of the tree removal will follow the criteria listed in sections 14-411 and 14-412. For clearing prior to building permit issuance, as a separate tree permit application must be submitted for review and compliance with sections 14-411 and 14-412. No tree permit is required for the annual removal of five trees or less from any single-family residential lot that contains an existing single-family dwelling unit.
- (2) As part of the tree permit site inspections, department of community development staff will also review understory or subcanopy plants and protected species for retention or relocation within the site.
- (3) For Greater Pine Island only, a tree removal permit will be required only on parcels or lots zoned or used for residential purposes that are two acres in size or greater.

Sec. 14-412. Issuance of permit.

(a) *Submission of application.* Application for a permit to remove any protected tree defined in this article shall be submitted to the administrator, in writing, on a form provided by the administrator, accompanied by a written statement indicating the reasons for removal.

(b) *Authority of administrator.* The administrator shall have the authority to issue the permit and to inspect all work performed under any permit issued under this article.

(c) *Required information.* All applications to remove any protected tree defined in this article shall be on forms provided by the administrator. Where an application has been submitted to the administrator for the removal of more than five trees, no tree removal permit shall be issued by the administrator until a site plan for the lot or parcel has been reviewed and approved by the administrator, which shall include the following minimum information:

- (1) The shape and dimensions of the lot or parcel, together with the existing and proposed locations of the structures and improvements, if any.
- (2) A tree location map for the lot or parcel, in a form acceptable to the administrator. For the removal of five trees or less, an on-site examination by the administrator's designee shall be made in lieu of the tree location map requirement.
- (3) Any proposed grade changes that might adversely affect or endanger any trees on the lot or parcel, together with specifications reflecting how the trees can be safely maintained.
- (4) Any proposed tree replacement plan.

(d) *Criteria for granting.* The administrator shall approve a permit for issuance for the removal of any protected tree if the administrator finds one or more of the following conditions is present:

- (1) Trees which pose a safety hazard to pedestrian or vehicular traffic or threaten to cause disruption to public utility services.
- (2) Trees which pose a safety hazard to existing buildings or structures.
- (3) Trees which prevent reasonable access to a lot or parcel so long as the proposed access point complies with all other county regulations.
- (4) Diseased trees which are a hazard to people, buildings or other improvements on a lot or parcel or to other trees.
- (5) Trees so weakened by age, storm, fire or other injury as to, in the opinion of the administrator, jeopardize the life and limb of persons or cause a hazard to property.
- (6) Trees which prevent the lawful development of a lot or parcel or the physical use thereof.
- (7) The administrator may require that a tree protected by this article be relocated on the same lot or parcel in lieu of removal.

(e) *Submission of site plan when building permit not required.* Where a building permit issuance is not required because no structures are to be constructed and no other development of the lot is to occur, any person seeking to remove a tree protected under this article shall first file a site plan with the administrator meeting the requirements of subsection (c) of this section prior to receiving a tree removal permit from the administrator.

(f) *Inspection of site.* The administrator may conduct an on-site inspection to determine if any proposed tree removal conforms to the requirements of this article and what effect, if any, removal of the trees will have upon the natural resources, as identified in the Lee Plan, of the affected area prior to the granting or denying of the application. A permit fee will be required for the removal or relocation of any tree protected under the provisions of this article and shall be paid at the time of issuance of the permit. The fees established will be set in accordance with the county administrative code and paid to the administrator. Such fees are hereby declared to be necessary for the purpose of processing the application and making the necessary inspection for the administration and enforcement of this article.

(g) *Approval or denial.* Based upon the information contained in the application and after investigation of the application, the administrator shall approve or deny the application, and, if approved, the administrator is the party so designated by the Board of County Commissioners to issue the permit for a period not to exceed one year and to collect the permit fee.

(h) *Conditions.* The administrator may attach conditions to the permit relating to the method of identifying, designating and protecting those trees which are not to be removed in accordance with subsection (g) of this section. A violation of these conditions shall automatically invalidate the permit. Special conditions which may be attached to the permit may include a requirement for successful replacement of trees permitted to be removed with trees of the same size, compatible species and same number.

(i) *Notice of clearing.* Upon receipt of all necessary documents, the administrator may issue a notice of clearing in lieu of an individual tree removal permit. A notice of clearing will be the preferred method of confirming that proposed agricultural activities conform with the exemption criteria in section 14-377(a). Notices of clearing for agricultural purposes in Greater Pine Island must comply with the following additional requirements in accordance with Policy 14.1.5 of the Lee Plan:

- (1) Agricultural land that adjoins state-designated aquatic preserves and associated wetlands and natural tributaries.

as defined in chapter 1 of this code, must preserve or create a 50-foot-wide native vegetated conservation buffer area between all agricultural lands and the natural waterbody and associated wetlands.

- (2) The purpose of this conservation buffer is to capture or slow the movement of sediments, fertilizers, pesticides, pathogens, and heavy metals that may be concentrated in stormwater runoff and to allow for increased biodiversity and improved wildlife habitat.
- (3) Stormwater runoff that is discharged through this conservation buffer must be routed through an indirect discharge such as an overflow or spreader swale or similar conveyance of a sufficient dimensions to reduce discharge velocities to historic rates or rates less than two feet per second.
- (4) This conservation buffer area must be maintained as a forested buffer but may contain a grassed filter strip of up to 15 feet wide. A maintenance plan must be provided to control invasion of exotic vegetation. If native vegetation does not currently exist in the remainder of the buffer, native tree cover must be established within three years of issuance of the notice of clearing.
 - a. For purposes of this subsection, native tree cover means the planting and subsequent maintenance of longleaf pine, slash pine, and/or native oak trees at average spacings typical of indigenous pine flatwoods on Pine Island.
 - b. These trees must be Florida No. 1 or better grade, no less than four feet in height at time of planting, and with a guaranteed 80 percent survivability for a period of five years.
- (5) Additional recommended design criteria are available in "Conservation Practice Standards" from the National Resources Conservation Service:
 - i. Standard 391 (Riparian Forest Buffer).
 - b. Standard 393 (Filter Strip).
- (6) These conservation buffer regulations will not be construed in a manner that violates the Agricultural Lands and Practices Act, F.S. § 163.3162, or the Florida Right-to-Farm Act, F.S. § 823.14.

CHAPTER 34

Zoning

ARTICLE VI, DISTRICT REGULATIONS Division 9, Planned Development Districts

Sec. 34-935. Property development regulations.

The provisions of this section do not apply to PRFPDs. Property development regulations for PRFPDs are set forth in section 34-941.

(a) *Minimum area for planned developments.* [no changes required]

(b) *Minimum setbacks of structures and buildings from development perimeter boundaries.* [no changes required]

(c) *Uses permitted within required perimeter setback.* [no changes required]

(d) *Planned developments on in Greater Pine Island.* Where the proposed planned development is within the Greater Pine Island area and adjoins state-designated aquatic preserves or and associated wetlands and natural tributaries, as defined in chapter 1 of this code, a 50-foot-wide native vegetated buffer area must be provided between any structure or building and the water body and wetlands, the mean high-water line of the water body shall be provided. Indigenous native plants within this buffer must be maintained or planted.

- (1) These requirements do not apply to:
 - a. Portions of marinas that provide direct water access, or
 - b. Land that has already been subdivided into building sites.
- (2) No deviation from this these requirements shall be permitted except under extreme circumstances in which the requirements would have the effect of prohibiting all reasonable use of the property.

(e) *Minimum lot size, dimensions and setbacks.* [no changes required]

(f) *Height of buildings.* [no changes required]

(g) *Open space.* [no changes required]

ADDENDUM H
IMPLEMENTING POLICY 14.2.2

IMPLEMENTING POLICY 14.2.2

RECENT CHANGES TO LEE PLAN POLICY 14.2.2:

POLICY 14.2.2: In order to recognize and give priority to the property rights previously granted by Lee County for about 6,675 ~~6,800~~ additional dwelling units, the county will ~~consider for adoption~~ keep in force effective development regulations which address growth on Pine Island and which implement measures to gradually limit future development approvals. ~~The effect of~~ These regulations will ~~would be to~~ appropriately reduce certain types of approvals at established thresholds prior to the ~~adopted level of service standard~~ capacity of Pine Island Road being reached, measured as follows at the permanent count station on Little Pine Island at the western edge of Matlacha:

- When traffic on Pine Island Road ~~between Burnt Store Road and Stringfellow Boulevard~~ reaches 810 peak hour, annual average two-way trips, the regulations will provide restrictions ~~on further rezonings which would increase traffic on Pine Island Road through Matlacha.~~ These regulations shall provide reasonable exceptions for minor rezonings on infill properties surrounded by development at similar intensities and those with inconsequential or positive effects on peak traffic flows through Matlacha, and may give preference to rezonings for small enterprises that promote the nature and heritage of Greater Pine Island.
- When traffic on Pine Island Road ~~between Burnt Store Road and Stringfellow Boulevard~~ reaches 910 peak hour, annual average two-way trips, the regulations will provide restrictions on the further issuance of residential development orders (pursuant to chapter 10 of the Land Development Code ~~the Development Standards Ordinance~~), or other measures to maintain the adopted level of service, until improvements can be made in accordance with this plan. The effect of these restrictions on residential densities must not be more severe than restricting densities to one-third of the maximum density otherwise allowed on that property.

The 810 and 910 thresholds were based on 80% and 90% of level-of-service "D" capacity calculated using the 1965 Highway Capacity Manual, as documented in the 2001 Greater Pine Island Community Plan Update. These development regulations may provide exceptions for legitimate ongoing developments to protect previously approved densities for final phases that have a Chapter 177 plat or site-plan approval under Ordinance 86- 36.

SUMMARY OF CODE CHANGES NEEDED TO IMPLEMENT POLICY 14.2.2:

- a. "When traffic on Pine Island Road reaches 810 peak hour, annual average two-way trips, the regulations will restrict further rezonings which would increase traffic on Pine Island Road through Matlacha. These regulations shall provide reasonable exceptions for minor rezonings on infill properties surrounded by development at similar intensities and those with inconsequential or positive effects on peak traffic flows through Matlacha, and may give preference to rezonings for small enterprises that promote the nature and heritage of Greater Pine Island." – MODIFY CONCURRENCY REGULATIONS IN 2-48 AND 2-50

- b. "The effect of these restrictions on residential densities must not be more severe than... restricting densities to one-third of the maximum density otherwise allowed on that property." – MODIFY CONCURRENCY REGULATIONS IN 2-48(3)
- c. "These development regulations may provide exceptions for legitimate ongoing developments to protect previously approved densities for final phases that have a Chapter 177 plat or site-plan approval under Ordinance 86-36." – ADD NEW LANGUAGE TO CONCURRENCY REGULATIONS IN 2-48(6)

COMPOSITE CODE CHANGES TO IMPLEMENT POLICY 14.2.2:

CHAPTER 2
Administration
ARTICLE II, CONCURRENCY
MANAGEMENT SYSTEM

Sec. 2-48. Greater Pine Island concurrency.

Concurrency compliance for property located in Greater Pine Island, as identified on the future land use map and described in section 34-2 of this code, will be determined in accordance with the level of service and restrictions set forth in Lee Plan policies 14.2.1 and 14.2.2 to the extent the policies provide additional restrictions that supplement other provisions of this article. These policies require the following:

- (1) The minimum acceptable level of service standard for Pine Island Road between Burnt Store Road and Stringfellow Boulevard is level of service D on an annual average peak-hour basis and level of service E on a peak-season peak-hour basis using methodologies from the 1985 Highway Capacity Manual Special Report 209. This standard will be measured at the county's permanent count station on Little Pine Island at the western edge of Matlacha and will apply to all of Greater Pine Island.
- (2) In addition, when traffic on Pine Island Road at the western edge of Matlacha between Burnt Store Road and Stringfellow Boulevard reaches 810 peak-hour annual average two-way trips, rezonings in Greater Pine Island that increase traffic on Pine Island Road may not be granted. Three types of exceptions

to this rule may be considered during the rezoning process:

- a. Minor rezonings on infill properties surrounded by development at similar densities or intensities. A minor rezoning under this exception may not rezone more than 5 acres of land or have a net effect of allowing more than 15 additional dwelling units.
 - b. Rezoning that would have inconsequential effects on traffic flows at the western edge of Matlacha during peak periods in the peak (busier) direction, or would have positive effects by reducing trips during those peak flow periods.
 - c. Rezoning to accommodate small enterprises that promote the natural features or cultural heritage of Greater Pine Island.
- (3) When traffic on Pine Island Road at the western edge of Matlacha between Burnt Store Road and Stringfellow Boulevard reaches 910 peak-hour annual average two-way trips, residential development orders (pursuant to chapter 10) will not be granted for land in Greater Pine Island unless measures to maintain the adopted level of service at the western edge of Matlacha can be included as a condition of the development order. As an alternative to maintaining the adopted level of service, the following options are available to landowners:
- a. Except in the Lee Plan's Coastal Rural land use category, a reduction in residential density on the property for which a development order is sought to one-third of the maximum density

- otherwise allowed by the Lee Plan and this code.
- b. In the Lee Plan's Coastal Rural land use category, a reduction in residential density on the property for which a development order is sought to the levels in the third column of Table 34-655 (see section 34-655 of this code).

(4) The standards in subsections (2) and (3) of this section will be interpreted and applied as follows:

- a. Traffic counts will be taken from the county's permanent count station on Little Pine Island at the western edge of Matlacha.
- b. For purposes of the regulations in this section, the 810-trip and the 910-trip thresholds will be considered to be exceeded upon approval by the board of county commissioners of the annual concurrency management inventory of available capacity of public facilities in accordance with section 2-50 of this chapter.
1. This inventory must contain an analysis of the previous year's traffic count data as reported in the Department of Transportation's annual Traffic Count Report.
 2. This analysis will determine if the reported number of Annual Average Daily Trips (AADT) multiplied by the percentage for the busiest peak flow (AM or PM) exceeds 810 or 910 respectively.
 3. If this analysis concludes that one or both of these thresholds were exceeded during the previous year, the corresponding restrictions for all of Greater Pine Island that are described in subsections (2) and (3) will take effect immediately upon approval of the inventory and will remain in effect until approval of the following year's inventory.
- c. Landowners may be in the process of obtaining residential development orders at the time that a formal determination is made that the 910-trip threshold has been exceeded. For such properties, the 180-day period for

resubmittal of supplemental or corrected application documents (see section 10-110(b)) shall not be shortened by this determination. However, no further 180-day periods may be granted.

1. Additional development rights may not be appended to a request for a development order during this period.
2. This allowance does not extend to tracts of land in large phased projects that are proposed for future development but for which a development order has not been sought in the current application.

(5) Expiring development orders in Greater Pine Island cannot be extended or renewed unless they are modified to conform with the regulations in effect at the time the extension or renewal is granted.

(6) The restrictions in subsections (2) and (3) will not be interpreted to affect ongoing developments whose final phases are already platted in accordance with F.S. ch. 177, provided that no new lots are added and that the number of allowable dwelling units is not increased. These restrictions also will not be interpreted to affect expansions to existing recreational vehicle parks to serve additional transient RVs if such expansions were explicitly approved by Lee County under Ordinance No. 86-36 (see section 34-3272(1)d.) and the land is properly zoned for this purpose.

Sec. 2-50. Concurrency management information system.

(a) The director will compile, publish and update, at least once each year, beginning no later than October 1, 1990, an inventory of the maximum, utilized and available capacity of public facilities for which minimum regulatory levels of service are prescribed in the Lee Plan. This inventory must also contain a projection of future demand on the facilities due to anticipated growth and additions to capacity based upon construction in progress or under contract. This inventory must also contain the Greater Pine Island analysis as described in section 2-48(4). The inventory must be reviewed and approved by the Board of County

Commissioners and, upon approval, will establish the availability and capacity of each facility to accommodate impacts from further development. This inventory will bind the county to the estimates of available capacity described in the inventory. Once approved by the board, these estimates will empower the director to issue concurrency certificates for development permits requested where the estimates reasonably demonstrate sufficient infrastructure capacity will be available to serve all developments reasonably expected to occur during the period of time approved by the board.

(b) The director will maintain a current cumulative list of all development orders issued by the county. The list will include the date of issuance of each development order.

(c) The director will maintain a list of all certificates issued pursuant to this article, or a copy of each certificate in chronological order by date of issuance in lieu of a list. These records may be removed to storage once the most recent certificate on the list is six months old.

ADDENDUM I

IMPLEMENTING POLICY 14.3.5

IMPLEMENTING POLICY 14.3.5

NEW LEE PLAN POLICY 14.3.5:

POLICY 14.3.5: The county will amend its land development code to provide specific regulations for neighborhood connectivity and walls and gates on Greater Pine Island if an acceptable proposal is submitted by the Greater Pine Island community. These regulations would require interconnections between adjoining neighborhoods wherever feasible and would no longer allow perimeter walls around larger developments.

SUMMARY OF CODE CHANGES NEEDED TO IMPLEMENT POLICY 14.3.5:

- a. "These regulations would require interconnections between adjoining neighborhoods wherever feasible..." ADD NEW PROVISIONS TO 10-294(b), 34-411(d) & (r), AND 34-1748(1)(e).
- b. "These regulations would ... no longer allow perimeter walls around larger developments." DELETE GREATER PINE ISLAND FROM 34-1743(c)

COMPOSITE CODE CHANGES TO IMPLEMENT POLICY 14.3.5:

CHAPTER 10
Development Standards
ARTICLE III, DESIGN STANDARDS
AND REQUIREMENTS
Division 2, Transportation,
Roadways, Streets and Bridges

Sec. 10-294. Continuation of existing street pattern.

(a) The proposed street layout shall be coordinated with the street system of the surrounding area. Streets in a proposed development shall be connected to streets in the adjacent area where required by the director of development review to provide for proper traffic circulation.

(b) For all new development on Greater Pine Island, the proposed street layout must be fully integrated into the street system of the surrounding area. These requirements apply equally to public and private streets.

- (1) Streets in a proposed development must be connected to existing streets in the

adjacent area, and to likely extensions of existing streets, unless physical barriers such as canals or wetlands preclude such connections.

- (2) Gates or guardhouses may not be used to block the movement of cars except as provided in section 34-1748(1)(e). However, traffic calming measures acceptable to the director of transportation may be employed to slow vehicles and to deter excessive cut-through traffic.
- (3) "Greater Pine Island" means the area that is affected by Lee Plan Goal 14 as depicted on the Future Land Use Map and as described in section 34-2 of this code.

CHAPTER 34
Zoning
ARTICLE IV, PLANNED DEVELOPMENTS
Division 3, Design Standards

Sec. 34-411. General standards.

(a) All planned developments shall be consistent with the provisions of the Lee Plan.

(b) All planned developments, unless otherwise excepted, shall be designed and constructed in accordance with the provisions of all applicable county development regulations in force at that time.

(c) The tract or parcel proposed for development under this article must be located so as to minimize the negative effects of the resulting land uses on surrounding properties and the public interest generally, and must be of such size, configuration and dimension as to adequately accommodate the proposed structures, all required open space, including private recreational facilities and parkland, bikeways, pedestrian ways, buffers, parking, access, on-site utilities, including wet or dry runoff retention, and reservations of environmentally sensitive land or water.

(1) In large residential or commercial planned developments, the site planner is encouraged to create subunits, neighborhoods or internal communities which promote pedestrian and cyclist activity and community interaction.

(d) The tract or parcel shall have access to existing or proposed roads:

- (1) In accordance with chapter 10 and as specified in the Lee Plan traffic circulation element or the official trafficways map of the county;
- (2) That have either sufficient existing capacity or the potential for expanded capacity to accommodate both the traffic generated by the proposed land use and that traffic expected from the background (through traffic plus that generated by surrounding land uses) at a level of service D or better on an annual average basis and level of service E or better during the peak season, except where higher levels of

service on specific roads have been established in the Lee Plan; and

- (3) That provide ingress and egress without requiring site-related industrial traffic to move through predominantly residential areas.
- (4) Planned developments on Greater Pine Island must also connect to existing streets in the adjacent area and to likely extensions of existing streets, as provided in section 10-294(b). "Greater Pine Island" means the area that is affected by Lee Plan Goal 14 as depicted on the Future Land Use Map and as described in section 34-2 of this code.

(e) – (q) *[no changes required]*

(r) Planned developments on Greater Pine Island must meet all of the special standards contained in this code and in the Lee Plan for Greater Pine Island. "Greater Pine Island" means the area that is affected by Lee Plan Goal 14 as depicted on the Future Land Use Map and as described in section 34-2 of this code.

CHAPTER 34
Zoning
ARTICLE VII, SUPPLEMENTARY
DISTRICT REGULATIONS
Division 17, Fences, Walls,
Gates and Gatehouses

Sec. 34-1743. Residential project walls.

(a) Definition: For purposes of this section, a residential project fence means a wall or fence erected around a residential subdivision (but not individual lots) or development of ten or more dwelling units.

- (b) A residential project fence or wall:
 - (1) May be a maximum height of eight feet around the perimeter of the project upon a finding by the development services director that the fence does not interfere with vehicle visibility requirements (see section 34-3131) at traffic access points.
 - (2) May include architectural features such as columns, cupolas, fountains, parapets, etc.,

- at a height not to exceed twice the fence or wall height provided they are compatible with the project and abutting properties.
- (3) Must be landscaped on the exterior side (between the wall and the abutting property or street right-of-way) with a minimum of five trees per 100 lineal feet and shrub hedges.
 - a. Hedges must be planted and maintained so as to form a 36-inch high continuous visual screen within 1 year after time of planting.
 - b. Trees adjacent to a right of way must be appropriately sized in mature form so that conflicts with overhead utilities, lighting and signs are avoided. The clustering of trees and use of palms adjacent to the right of way will add design flexibility and reduce conflicts.
 - (4) Must be constructed to ensure that historic water flow patterns are accommodated and all stormwater from the site is directed to on-site detention/retention areas in accordance with the SFWMD requirements.
 - (5) May not be permitted until proper documents have been recorded providing for the maintenance of the project fence and landscaping.

(c) Residential project fences or walls are not permitted on Greater Pine Island. "Greater Pine Island" means the area that is affected by Lee Plan Goal 14 as depicted on the Future Land Use Map and as described in section 34-2 of this code.

Sec. 34-1748. Entrance gates and gatehouses.

The following regulations apply to entrance gates or gatehouses that control access to three or more dwelling units or recreational vehicles, or any commercial, industrial or recreational facility:

- (1) An entrance gate or gatehouse that will control access to property 24 hours a day may be permitted provided that:
 - a. It is not located on a publicly dedicated street or street right-of-way; and
 - b.
 1. Appropriate evidence of consent from all property owners who have the right to use the subject road or from a property owner's association with sufficient authority is submitted; and
 2. If it is to be located within a planned development, it must be an approved use in the schedule of uses; and
 - c. The gate or gatehouse is located*:
 1. A minimum of 100 feet back from the intersecting street right-of-way or easement; or
 2. The gate or gatehouse is designed in such a manner that a minimum of five vehicles or one vehicle per dwelling unit, whichever is less, can pull safely off the intersecting public or private street while waiting to enter; or
 3. The development provides right turn and left turn auxiliary lanes on the intersecting street at the project entrance. The design of the auxiliary lanes must be approved by the development services director.

* Where, in the opinion of the director of development services, traffic volumes on the intersecting street are so low that interference with through traffic will be practically non-existent, the director may waive or modify the locational requirements set forth in (1)c. above. If the intersecting street is county-maintained, then the Director of Lee County Department of Transportation must concur. The decision to

- waive or to modify the locational requirements is discretionary and may not be appealed.
- d. The development provides right turn and left turn auxiliary lanes on the intersecting street at the project entrance. The design of the auxiliary lanes must be approved by the development services director.
 - e. For Greater Pine Island only, an entrance gate or gatehouse can be used to control access only to a single block. Entrance gates or gatehouses cannot interfere with movement of cars between neighborhoods (see section 10-294(b)).
 1. “Greater Pine Island” means the area that is affected by Lee Plan Goal 14 as depicted on the Future Land Use Map and as described in section 34-2 of this code.
 2. For purposes of this subsection, a “single block” means the length of any street from a dead-end or cul-de-sac to the first intersecting street and which provides access to no more than 25 existing or potential dwelling units.
- (2) Access for emergency vehicles must be provided.
 - a. Any security gate or similar device that is not manned 24 hours per day must be equipped with an override mechanism acceptable to the local emergency services agencies or an override switch installed in a glass-covered box for the use of emergency vehicles.
 - b. If an emergency necessitates the breaking of an entrance gate, the cost of repairing the gate and the emergency vehicle if applicable, will be the responsibility of the owner or operator of the gate.
 - (3) Extension of fences or walls to an entrance gate or gatehouse. A fence or wall may be extended into the required setback where it abuts an entrance gate or gatehouse, provided vehicle visibility requirements (see section 34-3131) are met.
 - (4) Entrance gates that are installed solely for security purposes for non-residential uses, and that will remain open during normal working hours, are not subject to the location requirements set forth in (1)c. above and are not required to be equipped with an override mechanism acceptable to the local emergency services agencies or an override switch installed in a glass-covered box for the use of emergency vehicles. However, if an emergency necessitates the breaking of an entrance gate, the cost of repairing the gate and the emergency vehicle if applicable, will be the responsibility of the owner or operator of the gate.

ADDENDUM J
IMPLEMENTING POLICY 14.3.3

IMPLEMENTING POLICY 14.3.3

RECENT CHANGES TO LEE PLAN POLICY 14.3.3:

POLICY 14.3.3: The county's Land Development Code zoning regulations will continue to state that no building or structure on Greater Pine Island will be erected or altered so that the peak of the roof exceeds thirty-eight (38) feet above the average grade of the lot in question, or forty-five (45) feet above mean sea level, whichever is the lower. No deviations from these height restrictions may be granted through the planned development process. These height restrictions will not be measured from minimum flood elevations nor will increases in building height be allowed in exchange for increased setbacks. Industrial buildings must also comply with these height restrictions.

SUMMARY OF CODE CHANGES NEEDED TO IMPLEMENT POLICY 14.3.3:

- a. "No deviations from these height restrictions may be granted through the planned development process." – ADD THIS PROVISION TO 34-2175(5)
- b. "These height restrictions will not be measured from minimum flood elevations..." DELETE GREATER PINE ISLAND FROM 34-2171(1)
- c. "...nor will increases in building height be allowed in exchange for increased setbacks." ADD PROVISIONS TO 34-2174 & 34-2175(5) THAT EXEMPT GREATER PINE ISLAND FROM THESE INCREASES IN BUILDING HEIGHT
- d. "Industrial buildings must also comply with these height restrictions." DELETE THE EXEMPTION FOR INDUSTRIAL BUILDINGS FROM 34-2175(5)
- e. ADD GREATER PINE ISLAND TO OTHER ISLANDS LISTED IN 34-1444(B)(3) FOR PURPOSES OF REGULATING TOWER HEIGHTS

COMPOSITE CODE CHANGES TO IMPLEMENT POLICY 14.3.3:

CHAPTER 34

Zoning

ARTICLE VII, SUPPLEMENTARY DISTRICT REGULATIONS

Division 11, Wireless Communication Facilities

Sec. 34-1444. Permissible wireless facility locations.

(a) Except as provided below, a wireless communications facility may be permitted only in accordance with Table 34-1447 and the provisions of this chapter. Regardless of the process required, the applicant must comply with all submittal, procedural and substantive provisions of this chapter. Variances or deviations from the requirements of this division may be granted only

in accordance with the requirements of section 34-1453 for a variance.

- (b) Exceptions:
- (1) Broadcast antenna-supporting structures in excess of 250 feet will only be allowed within an agricultural zoning district by variance in accordance with the requirements of section 34-1453. Broadcast studios are not allowed in the agricultural zoning district and must comply with all other applicable zoning and development regulations.
 - (2) All antennas proposed to be mounted on existing buildings or structures must apply for administrative review as set forth in section 34-1445(b).
 - (3) On the barrier islands, Greater Pine Island, and within the outer island future land use

areas, the overall height of wireless communications facilities must not exceed 35 feet or the height limitation set forth in section 34-2175, whichever is less. ~~The provisions set forth in section 34-2174 are applicable only to~~ For stealth wireless communication facilities only, these height limitations may be increased by one foot for each one-half foot that every required street, side, and rear setback is increased.

- (4) Wireless communications facilities are prohibited in the Density Reduction - Groundwater Resource (DR/GR) Future Land Use areas, wetlands, environmentally critical zoning districts and areas readily visible from the University Window Overlay, except for:
- Stealth wireless communication facilities;
 - Surface-mounted and flush-mounted antennas; and
 - Collocations.

The design of any facility proposed in these areas must be reviewed in accordance with the provisions of section 34-1445 and section 34-1447.

CHAPTER 34
Zoning
ARTICLE VII, SUPPLEMENTARY
DISTRICT REGULATIONS
Division 30, Property Development Regulations

Subdivision II. Height

Sec. 34-2171. Measurement.

(a) Except as provided in this subdivision, the height of a building or structure is measured as the vertical distance from grade* to the highest point of the roof surface of a flat or Bermuda roof, to the deck line of a mansard roof, and to the mean height level between eaves and ridge of gable, hip and gambrel roofs, and to the highest point of any other structure (excluding fences and walls).

* For purposes of this subdivision, grade is the average elevation of the street or streets abutting the property measured along the centerline of the streets, at the points of intersection of the streets with the side lot lines (as extended) and the midpoint of the lot frontage.

- (1) In areas within the Coastal Building Zone and other flood prone areas (as defined in Chapter 6 Articles III and IV of the LDC), height of a building is the vertical distance from the minimum required flood elevation to the highest point of the roof surface of a flat or Bermuda roof, to the deck line of a mansard roof, to the mean height level between eaves and ridge of gable, hip and gambrel roofs. However, this substitution of "minimum required flood elevation" for "average grade" does not apply to Captiva Island, Gasparilla Island, or Greater Pine Island (sections 34-2175(2), (4), and (5) respectively).
- (2) Fences, walls, and buffers are measured in accordance with section 34-1744 and section 10-416.

Sec. 34-2172. Reserved.

NOTE: The provisions of sections 34-2173 and 34-2174 do not apply to satellite earth stations and amateur radio antennas (section 34-1175) or wireless communication facilities (section 34-1441, et seq.), except for stealth facilities.

Sec. 34-2173. Exception to height limitations for certain structural elements.

(a) The following structural appurtenances may exceed the height limitations stipulated in the applicable districts for authorized uses, without increasing setbacks as required in section 34-2174:

- Purely ornamental structural appurtenances such as church spires, belfries, cupolas, domes, ornamental towers, flagpoles or monuments.
- Appurtenances necessary to mechanical or structural functions such as chimneys and smokestacks, water tanks, elevator and stairwell enclosures, ventilators, and bulkheads; AM and FM radio and television masts, aerials, and antennas; fire and hose towers, utility transmission and distribution structures, cooling towers, aircraft control towers or navigation aids, forest fire observation towers, and barns, silos, windmills or other farm structures when located on farms.

For satellite earth stations and amateur radio antennas - refer to section 34-1175.

For wireless communication facilities, refer to section 34-1441 et seq.

(b) The permitted exceptions to the height limitations may be authorized only when the following conditions can be satisfied:

- (1) The portion of the building or structure permitted as an exception to a height limitation may not be used for human occupancy or for commercial purposes.
- (2) Structural exceptions to height limitations may only be erected to the minimum height necessary to accomplish the purpose it is intended to serve, and no higher.
- (3) If the roof area of the structural elements permitted to exceed the height limitations equals 20 percent or more of the total roof area, they will be considered as integral parts of the whole structure, and therefore not eligible to exceed the height limitations.

Sec. 34-2174. Additional permitted height when increased setbacks provided.

(a) Subject to conditions set forth in section 34-2175, any building or structure may be permitted to exceed the height limitations specified by the zoning district regulations in which the property is located provided every required street, side, and rear setback is increased by one-half foot for every one foot by which the building or structure exceeds the specified height limitation.

(b) In zoning districts that do not specify a maximum height limitation, the increase to setbacks stated in this section will apply to all buildings or structures exceeding 35 feet in height.

(c) The additional height in exchange for increased setbacks that is permitted by this section may not be used on Upper Captiva Island, Captiva Island, Gasparilla Island, Greater Pine Island, and all other islands (sections 34-2175(1), (2), (4), (5), and (6) respectively).

Sec. 34-2175. Height limitations for special areas.

The following areas have special maximum height limitations applicable to all conventional and planned development districts:

- (1) **Upper Captiva Island.** The height of a structure may not exceed 35 feet above grade (base flood elevation). The provisions of section 34-2174(a) do not apply to Upper Captiva Island. No variance or deviation from the 35-foot height restriction may be granted.

In addition to compliance with all applicable building codes (including Fire and Life Safety codes), any building with two or more stories or levels must provide an exterior stairway from the uppermost levels (including "widow's walks" or observation decks) to the ground OR a one-hour fire rated interior means of egress from the uppermost levels (including "widow's walks" or observation decks) to the ground.

- (2) **Captiva Island.** No building or structure may be erected or altered so that the peak of the roof exceeds 35 feet above the average grade of the lot in question or 42 feet above mean sea level, whichever is lower. The provisions of section 34-2174(a) do not apply to Captiva Island. No variance or deviation from this height restriction may be granted.
- (3) **San Carlos Island.** The height of a structure may not exceed 35 feet above grade, except as provided for in section 34-2174. If seaward of the coastal construction control line, elevations may exceed the 35-foot limitation by three feet for nonconforming lots of record.
- (4) **Gasparilla Island conservation district.** No building or other structure may be erected or altered so that the peak of the roof is more than 38 feet above the average grade of the lot or parcel on which the building or structure is located, or is more than 42 feet above mean sea level, whichever is lower.
- (5) **Greater Pine Island.** No building or structure may be erected or altered so that the peak of the roof exceeds 38 feet above the average grade of the lot in question or 45 feet above mean sea level, whichever is lower. The term "building or structure," as used in this subsection, does not include a

building or structure used for an industrial purpose.

- a. "Greater Pine Island" means the area that is affected by Lee Plan Goal 14 as depicted on the Future Land Use Map and as described in section 34-2 of this code.
- b. The provisions of section 34-2174(a) do not apply to Greater Pine Island.
- c. Structures without roofs will be measured to the highest point on the structure.
- d. No deviations from these height restrictions may be granted through the planned development process.
- e. Any variances from these height restrictions require all of the findings in section 34-145(3) plus these additional findings:
 1. The variance must be fully consistent with the Lee Plan, including its specific provisions for Greater Pine Island.
 2. The relief granted by the variance must be the minimum required to offset the specific exceptional or extraordinary conditions or circumstances that are inherent to the property in question. The only exception is where the relief is required to maintain or improve the health, safety, or welfare of the general public (not just the health, safety, or welfare of the owners, customers, occupants, or residents of the property in question).

(6) *All other islands.* The height of a structure may not exceed 35 feet above grade (base flood elevation). Except as provided in subsections 34-2175 (3), (4), and (5), the provisions of section 34-2174(a) do not apply to islands. No variance or deviation from the 35-foot height restriction may be granted.

(7) *Airport hazard zone.* Height limitations for the airport hazard zone are set forth in article VI, division 10, subdivision III, of this chapter.

Secs. 34-2176--34-2190. Reserved.

IMPLEMENTING POLICY 14.4.3

NEW LEE PLAN POLICY 14.4.3:

POLICY 14.4.3: The county will expand the commercial design standards in its land development code to provide specific architectural and site design standards for Greater Pine Island if an acceptable proposal is submitted by the Greater Pine Island community. These standards would promote but not mandate rehabilitation over demolition; require smaller rather than larger buildings; avoid standardized franchise buildings; preserve mature trees wherever possible; place most parking to the side and rear; require large windows and forbid most blank walls; and encourage metal roofs and other features of traditional "Old Florida" styles. The new commercial design standards will reflect the different characteristics of Bokeelia, Pineland, Matlacha, and St. James City.

SUMMARY OF CODE CHANGES NEEDED TO IMPLEMENT POLICY 14.4.3:

- a. "The county will expand the commercial design standards in its land development code to provide specific architectural and site design standards for Greater Pine Island..." – ADD THESE PROVISIONS TO 10-621

COMPOSITE CODE CHANGES TO IMPLEMENT POLICY 14.4.3:

CHAPTER 10
Development Standards
ARTICLE IV, DESIGN STANDARDS
AND GUIDELINES FOR COMMERCIAL
BUILDINGS AND DEVELOPMENTS

Sec. 10-601. Definitions.

The following words, terms or phrases, when used in this article only, will have the following meanings ascribed to them:

Arcade means a roof, similar to an overhang or canopy but where the outer edge is supported by a line of pillars or columns.

Awning means a cover of lightweight material such as canvas, plastic, or aluminum, extending over a single doorway or window, providing protection from the elements.

Canopy, attached means a permanent structural cover affixed to and extending from the wall of a building, protecting a doorway or walkway from the elements.

Canopy, detached means a freestanding structure which covers a walkway or service area.

Facade means the exterior faces of a building.

Facade, primary means any facade of a building facing an abutting street. On a corner lot, each wall facing an abutting street is considered a primary facade. If a building is angled to an abutting street, both walls roughly facing the street are primary facades.

Overhang means the structural projection of an upper story or roof beyond the story immediately below.

Parapet means the part of an exterior wall that extends above the roof.

Portico means an architectural entry feature structurally supported by columns or arches and protecting a doorway or walkway from the elements.

Shopping center means a multiple-occupancy building or complex wherein the predominant tenants are retail businesses and offices.

Wall, front means the wall closest to, and running roughly parallel to, the front lot line. On a corner lot, there are two front walls.

Sec. 10-620. Design standards and guidelines for commercial buildings.

(a) *Purpose and intent.* The purpose and intent of these provisions is to maintain and complement the street scape by requiring that buildings be designed with architectural features and patterns that provide visual interest consistent with the community's identity and local character while reducing the mass/scale and uniform monolithic appearance of large unadorned walls. (See Illustration 4 below.) Due to inherent problems in the CRA overlay district, compliance with the CRA overlay district design guidelines may substitute for the criteria set forth in this section.

(b) *Building/view orientation standards.* Buildings must be oriented to maximize pedestrian access, use and view of any adjacent navigable water bodies.

(c) *Facades.*

(1) *Wall height transition.* New buildings that are more than twice the height of any existing building within 300 feet must be designed to provide a transition between buildings of lower height. (See Illustration 5 below.)

(2) *Architectural design.*

a. All primary facades of a building must be designed with consistent architectural style, detail and trim features.

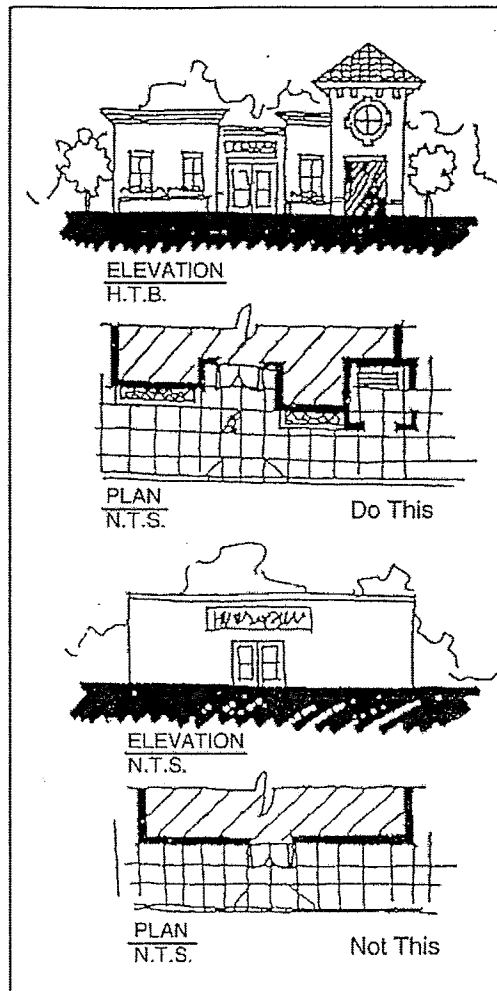


ILLUSTRATION # 4

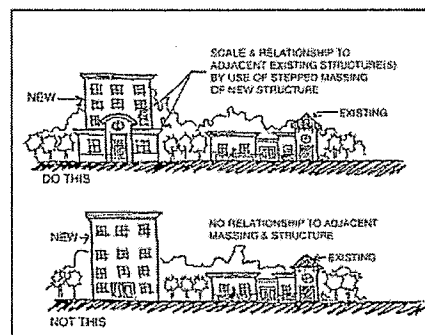


ILLUSTRATION # 5

b. Buildings must provide a minimum of three of the following building design treatments integrated with the massing and style of the buildings. (See Illustrations 6 and 7 below.) If awnings, canopies and overhangs are used they must conform to a unified plan of compatible colors, shapes and materials.

1. Awnings or attached canopies;
2. Overhangs;
3. Porticos;
4. Arcades, minimum of eight feet clear in width;
5. Peaked roof forms;
6. Display windows along a minimum of 50 percent of front walls and any other wall alongside a pedestrian walkway;
7. Clock or bell towers; or
8. Any other treatment which the development services director finds meets the intent of this section:

and on large projects one of the following site design elements: or

1. Integration of specialty pavers, or stamped concrete along the building's walkway. Said treatment must constitute a minimum of 60 percent of walkway area;
2. Fountains, reflection ponds or other water elements, a minimum of 150 square feet in area for every 300 lineal feet of primary facade length; or
3. Any alternative treatment or combination of the above elements that the development services director finds meets the intent of this section.

(3) *Corner lots.* In addition to the above, corner lots at an intersection of two or more arterial or collector roads must be designed with additional architectural embellishments, such as corner towers, or other such design features, to emphasize their location as gateways and transition points within the community.

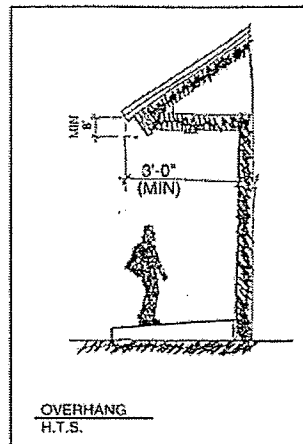


ILLUSTRATION #6

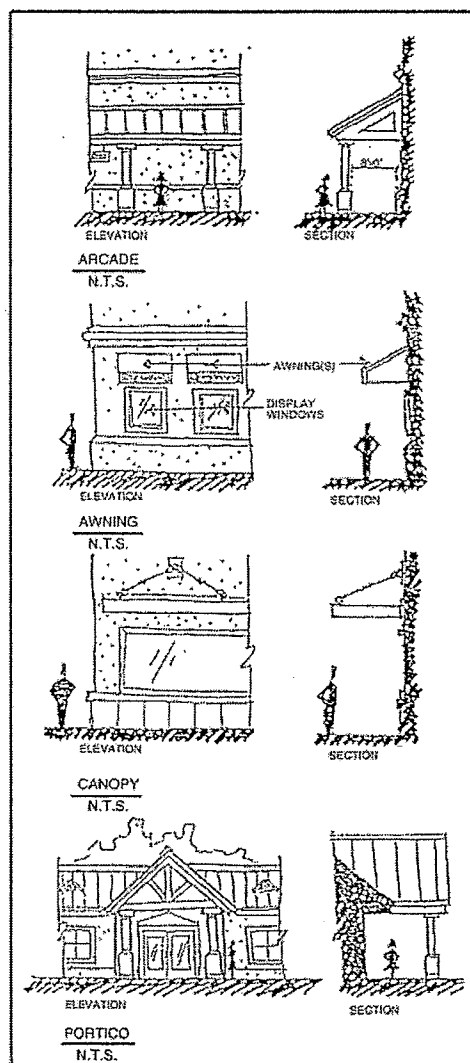


ILLUSTRATION # 7

(d) *Roof treatments.*

(1) *Purpose and intent.* Variations in roof lines must be used to add interest to, and reduce the massing of buildings. Roof features and materials must be in scale with the building's mass and complement the character of adjoining and/or adjacent buildings and neighborhoods. The following standards identify appropriate roof treatments and features.

(2) *Roof edge and parapet treatment.* The roof edge and/or parapet must have a vertical change from the dominant roof condition, in two locations. At least one such change must be located on a primary facade. (See Illustration 8 below.)

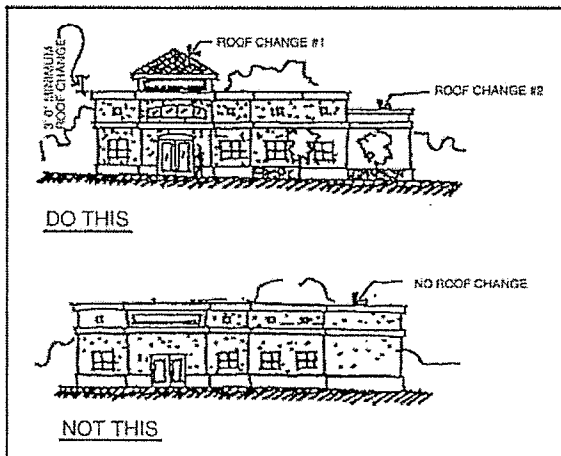


ILLUSTRATION #8

- (3) Roofs must be designed to also meet at least two of the following requirements:
- Parapets used to conceal roof top equipment and flat roofs;
 - Three or more roof slope planes per primary facade. (See Illustration 9 below);
 - Sloping roofs, which do not exceed the average height of the supporting walls, must have an average slope equal to or greater than 4V:12H but not greater than 12V:12H;
 - Additional vertical roof changes with a minimum change in elevation of two feet (flat roofs must have a minimum of two changes): or

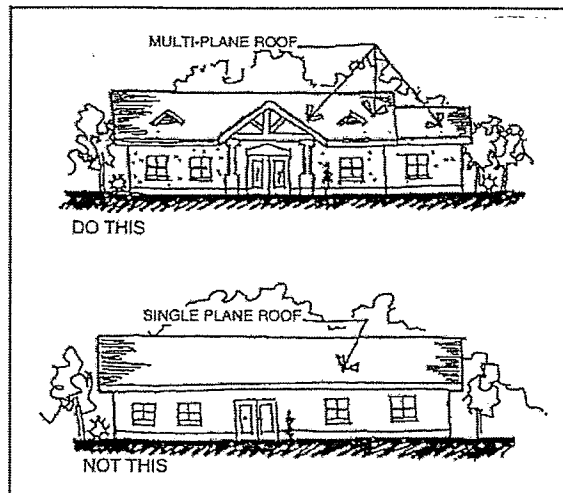


ILLUSTRATION #9

e. Three-dimensional cornice treatment which must be a minimum of ten inches in height with a minimum of three reliefs.

(4) *Prohibited roof types and materials.* The following types of materials are prohibited:

- Roofs utilizing less than or equal to a 2V:12H pitch unless utilizing full parapet coverage or mansard; and
- Mansard roofs except roofs with a minimum vertical distance of eight feet and an angle between 45 and 70 degrees from horizontal.

(e) *Detail features.* The design elements in the following standards must be integral parts of the building's exterior facade and must be integrated into the overall architectural style. These elements may not consist solely of applied graphics, or paint.

- (1) *Blank wall areas.* Building walls and facades, must avoid large blank wall areas by including at least three of the design elements listed below, in a repeating pattern. At least one of the design elements must repeat horizontally.
- Texture change;
 - Material change;
 - Architectural features such as bandings, bays, reveals, offsets, or projecting ribs. (See Illustration 10 below);

- d. Building setbacks or projections; or,
- e. Pattern change.

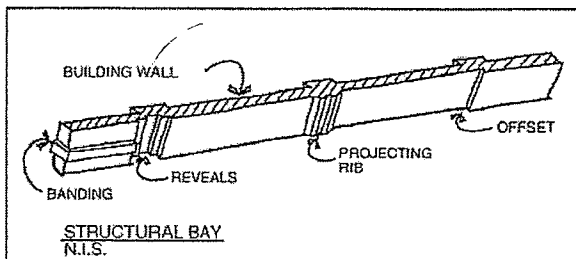


ILLUSTRATION #10

- (2) *Materials.* Exterior building materials contribute significantly to the visual impact of a building on the community. They must be well-designed and integrated into a comprehensive design style for the project.
 - a. The following exterior building materials can not be used on more than 50 percent of the building facade area:
 1. Plastic or vinyl siding except to establish the "old Florida" look;
 2. Corrugated or reflective metal panels;
 3. Tile (prohibition does not apply to roofs);
 4. Smooth, scored or rib faced concrete block;
 5. Any translucent material, other than glass; or
 6. Any combination of the above.
 - b. Building trim and accent areas, consistent with the overall building, are limited to ten percent of the affected wall area, with a maximum trim width of 24 inches.

Sec. 10-621. Greater Pine Island.

(a) *Applicability.* This section provides additional design standards and guidelines for commercial buildings in Greater Pine Island. Greater Pine Island is identified on the future land use map and is described in section 34-2 of this code. These additional standards and guidelines are applicable to all new development and to renovations and redevelopment as provided in section 10-602, except as modified by this section. Where the standards or guidelines in this section conflict with other standards of this article, this section shall control.

(b) *Purpose and intent.* The standards in this section implement Lee Plan Policy 14.4.3 by expanding on the commercial design standards for unincorporated Lee County. These additional standards for Greater Pine Island encourage rehabilitation of existing buildings; require smaller rather than larger buildings; avoid standardized franchise buildings; preserve mature trees wherever possible; place most parking to the side and rear; require large windows and forbid most blank walls; and encourage metal roofs and other features of vernacular commercial buildings.

(c) *Rehabilitation of existing buildings.* The standards and guidelines in this article apply to additions and renovations to, or redevelopment of, an existing building where the cumulative increase in total floor building area exceeds 75% of the square footage of the existing building being enlarged or renovated, instead of when exceeding 50% of the square footage as required by section 10-602(b) for the remainder of unincorporated Lee County.

(d) *Building size and character.* New commercial buildings are limited to 10,000 square feet of floor area each unless a larger size is approved by variance or by deviation in a commercial planned development. Any larger buildings approved by variance or deviation must be designed to minimize the appearance of a single large box or a standard franchise design.

(e) *Windows.* The following rules apply to windows on all primary facades (as defined in section 10-601).

- (1) Transparent windows must be installed along a minimum of 30 percent of each primary facade.
 - a. All window glass, whether integrally tinted or with film applied, must transmit at least 50% of visible daylight.
 - b. Private interior spaces such as offices may use operable interior blinds for privacy.
- (2) New window openings must be rectangular and oriented vertically, except for transom windows over doors.
- (3) The bottoms of all new window openings must be no higher than 30 inches above the finish floor elevation.

- (4) New windows must contain visible sills and lintels on the exterior of the wall.
- (5) New windows must have their glazing set back at least 3 inches from the surface plane of the wall, or set back at least 2 inches when wood frame construction is used.

(f) *Metal roofs.* Sloping roofs must use metal for all finished surfaces; however, this requirement shall not apply to buildings that have been designated as historic pursuant to ch. 22 of this code.

(g) *Mature trees.* The development services director may grant deviations from the technical standards in this chapter to accommodate the preservation of existing mature trees on a development site.

- (1) To qualify for a deviation, the tree being preserved must be at least six inches in diameter at breast height and must not be an invasive exotic tree as defined by section 10-420.
- (2) The deviation requested must not compromise the public health, safety or welfare in the opinion of the development services director.

(h) *Parking lots.* Except in the Matlacha historic district and except for marinas anywhere in Greater Pine Island, no more than a single row of parking spaces may be located between the primary facade of a building and the front lot line. In addition, at least one half of all parking spaces provided on a site must be located further from the front lot line than the plane of a primary facade that is closest to the front lot line.

Secs. 10-622~~1~~—10-629. Reserved.

ADDENDUM K
IMPLEMENTING POLICY 14.4.4

IMPLEMENTING POLICY 14.4.4

NEW LEE PLAN POLICY 14.4.4:

POLICY 14.4.4: The county will expand its current sign regulations to include specific standards for Greater Pine Island if an acceptable proposal is submitted by the Greater Pine Island community. These standards would reduce the size of ground-mounted signs, discourage or disallow internally lit box signs, allow wall signs on buildings near the right-of-way, and allow small directional signs on Stringfellow Road for businesses not visible from the road.

SUMMARY OF CODE CHANGES NEEDED TO IMPLEMENT POLICY 14.4.4:

- a. "These standards would reduce the size of ground-mounted signs..." – MODIFY 30-153(3)a.8
- b. "... discourage or disallow internally lit box signs..." – MODIFY 30-153(3)d
- c. "... allow wall signs on buildings near the right-of-way..." – MODIFY 30-153(2)a.4 & 30-153(3)e
- d. "... and allow small directional signs on Stringfellow Road for businesses not visible from the road." – ADD PROVISIONS FOR DIRECTIONAL SIGNS TO 30-181(c) & TO ORDINANCE 88-11; REPLACE EXISTING BILLBOARDS BEING USED AS DIRECTIONAL SIGNS BY ADDING 30-55(b)(5) & 30-183(13).

COMPOSITE CODE CHANGES TO IMPLEMENT POLICY 14.4.4:

CHAPTER 30

Signs

ARTICLE I, IN GENERAL

Sec. 30-2. Definitions and rules of construction.

(a) In case of any difference of meaning or implication between the text of this chapter and any other law or regulation, this chapter shall control.

(b) The following words, terms and phrases, when used in this chapter, have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

Greater Pine Island means the area that is affected by Lee Plan Goal 14 as depicted on the Future Land Use Map and as described in section 34-2 of this code.

[no other changes to section 30-2]

CHAPTER 30

Signs

ARTICLE II, ADMINISTRATION AND ENFORCEMENT

Sec. 30-55. Nonconforming signs.

(a) *Status.* Every sign, as of the effective date of the ordinance from which this chapter is derived, which is a permitted legally existing sign shall be deemed a legal nonconforming sign. A permitted sign means a sign that was constructed or is in place with a valid permit from the county. All nonconforming signs shall be subject to the provisions of this section. All existing signs which are not legal nonconforming signs must comply with the terms of this chapter.

- (1) A nonconforming sign may not be enlarged or altered in a way which increases its nonconformity.
- (2) Nothing in this section shall relieve the owner or user of a legal nonconforming

sign or owner of the property on which the legal nonconforming sign is located from the provisions of this chapter regarding safety, maintenance and repair of signs. Any repair or refurbishing of a sign that exceeds 25 percent of the value of the sign in its preexisting state shall be considered as an act of placing a new sign and not an act of customary maintenance. It shall be the responsibility of the permittee to provide the division of community development with adequate proof of the cost of such work in the form of an itemized statement of the direct repair cost, whenever such information is requested by the division.

- (3) If any nonconforming sign is destroyed to an extent of 50 percent or more of its assessed value at the time of destruction, the sign shall not be replaced or repaired, in part or in full, except upon full compliance with this chapter.
- (4) A replacement billboard structure may be rebuilt in its present location provided that the structure is in compliance with the following conditions:
 - a. Pursuant to the application for replacement, two legal nonconforming billboard structures shall be removed in exchange for the right to reconstruct one replacement billboard structure.
 - b. One of the structures which is to be removed must be located on the same site as the replacement billboard structure. If only one structure is located on the site of the replacement sign, another nonconforming billboard structure must be removed from another location within the unincorporated area of the county.
 - c. The replacement billboard structure must meet all current county height, size and setback requirements.
 - d. The land use category in which the replacement sign is to be erected shall be the less restrictive of the two land use categories where the two removed nonconforming billboard structures were located. If the land use category is the same for both nonconforming billboard structures, the replacement structure may be located at either site. For purposes of this section, the following hierarchy of land use

categories should be used to determine the least restrictive land use categories, with the most appropriate categories listed in descending order:

1. Intensive development, industrial development, airport commerce and interchange areas;
 2. Central urban and urban community;
 3. Suburban and outlying suburban;
 4. Rural, outer islands and density reduction/groundwater resources; and
 5. Environmentally critical areas (resource protection area and transitional zones).
- e. Upon approval of the application for replacement and completion of the conditions specified in this subsection, the replacement billboard structure shall be deemed in conformance with this chapter.
 - f. No replacement billboard structure may be located in the locations designated in section 30-183(1)b.
- (b) *Loss of legal nonconformity.*
- (1) A legal nonconforming sign shall become an illegal sign which must comply with this chapter if:
 - a. More than 50 percent of the sign is removed or unassembled for a period of more than six months.
 - b. The sign is altered or relocated in any manner which increases its nonconformity or causes it to be less in compliance with the provisions of this chapter. A change in copy of a sign listed as a prohibited sign by this chapter is presumed to be an alteration which increases nonconformity; such a copy change on a prohibited sign is prohibited. To establish that the nonconformity is not increased by replacing copy on a sign, other than on a changeable copy sign (where it is presumed that changing copy cannot increase nonconformity) or a prohibited sign (where a change of copy is never allowed), a sealed statement from a state-certified engineer certifying that the sign meets the structural integrity required by the current applicable building code shall

be submitted to the building official in those instances when engineering documents are required for original placement of such a sign. All signs for which a change of copy is permitted shall be made to conform with the requirements of this chapter by April 1, 1993, or any such sign shall lose its legal nonconforming status and shall be removed.

- c. Repair or refurbishing exceeds 25 percent of the value of the sign in its preexisting state.
 - d. The sign is replaced, except as provided in subsection (a)(4) of this section.
- (2) When a sign face remains blank, which is defined as void of advertising matter, for a period of 12 months it loses its nonconforming status and must be treated as a sign which must comply with all the requirements of this chapter. Signs displaying an "available for lease" message or similar message and partially obliterated signs which do not identify a particular product, service or facility are considered to be blank signs.
- (3) A nonconforming sign that has lost its legal nonconforming status shall be immediately brought into compliance with this chapter, or the sign shall be removed.
- (4) The existence of an illegal sign or a legal nonconforming sign does not constitute a hardship warranting the issuance of a variance from the provisions of this chapter.
- (5) Certain nonconforming off-site directional signs and billboards in Greater Pine Island lost their nonconforming status upon adoption of section 30-183(c). These signs became illegal signs at that time and must be removed within 12 months after adoption of section 30-183(c).
- a. Qualifying businesses that have used nonconforming billboards as off-site directional signs may replace these billboards with new off-site directional signs located in the right-of-way in accordance with section 30-183(c).
 - b. All other billboards must be removed within 12 months after adoption of section 30-183(c) unless their owners can demonstrate that the billboard has been in continual compliance with the

requirements of this code for nonconforming signs (see section 30-183(b)(1)-(b)(4)).

CHAPTER 30

Signs

ARTICLE IV, RESTRICTIONS BASED ON LOCATION

Sec. 30-153. Permanent signs in commercial and industrial areas.

In order to provide fair, equal and adequate exposure to the public, and to prevent a single property owner from visually dominating neighboring properties with signs, all nonresidential uses are limited to a total permissible sign area in accordance with the provisions of this section.

(1) **Calculation of total permissible area.**

Except as specifically provided in section 30-6(1)w, total permitted sign area for any nonresidential use shall be calculated at the ratio of 20 square feet of sign area for every ten linear feet, or major fraction thereof, of frontage on a street which affords vehicle access to the property, subject to the following limitations:

a. *Single frontage.*

1. For uses with 50 feet or less frontage, maximum permitted sign area shall be 100 square feet.
2. For uses with over 50 feet but less than 100 feet of frontage, maximum permitted sign area shall be 150 square feet.
3. For uses with from 100 to 330 feet of frontage, maximum permitted sign area shall be 300 square feet.
4. For uses with over 330 feet of frontage, maximum permitted sign area shall be 400 square feet.

b. *Multiple frontage.*

1. *Corner lots.* Uses located on corner lots may utilize up to the maximum sign area allowed for each frontage providing vehicle access. No transfers of allowable area may be made from one frontage to another. See subsection (2)a of this section for exceptions.

2. *Parallel street frontage.* Uses with frontage on two streets which do not form a corner lot shall be allowed sign area credit for the second street as follows:

i Both streets collector or better. When both streets serve as collectors or better and public access is available from both streets, each street frontage shall be computed as provided in subsection (1)a of this section. However, no transfers of allowable area may be made from one frontage to the other. (Example: a use located on a through lot between old and new U.S. 41.)

ii *One street collector or better and one street local.* When a use fronts on two streets, one of which is classified as a local street, the following limitations shall apply:

(a) If the property across the local street is residential or institutional, or if the primary use on either side of the local street within that block is residential, the sign area allowance on the local street shall be limited to 25 square feet, regardless of frontage. (Example: property front has primary access to U.S. 41 but also borders a local street behind the property.)

(b) If the property across the local street is commercial or industrial, and the street provides vehicular access to the subject property, sign area allowance shall be the same as provided in subsection (1)a of this section. No transfer of allowable area may be made from one street to the other. (Example: a business establishment located in a commercial or industrial area.)

iii *Both streets local.* When a use borders on two local streets, full sign area credit shall be allowed for the street that provides the primary vehicle access. The second street shall be limited to a sign area of 25 square feet. No transfers of allowable sign area shall be made from one street to the other. (Example: a permitted establishment in a primarily residential area.)

iv *Frontage roads.* Where a business fronts upon a collector or better street but is separated by a frontage road, the allowable sign area shall be treated as though the frontage road was not there.

(2) **Nonresidential subdivisions and multiple-occupancy complexes with more than five establishments.**

a. *Identification sign.* A nonresidential subdivision or a multiple-occupancy complex of more than five establishments shall be permitted one ground-mounted identification sign along any street which provides access to the property as follows:

1. One square foot of sign area per face shall be permitted for every one linear foot of frontage, provided that:

i No sign shall exceed 200 square feet in area per sign face.

ii Only one identification sign shall be permitted along any street frontage of less than 330 linear feet. A second identification sign may be permitted if the frontage along any one street exceeds 330 linear feet, provided that the total combined sign area of both signs does not exceed 300 square feet.

iii On corner lots, the developer may either place one identification sign on both streets providing access as stipulated in subsections (2)a.1.i and ii of this section,

or he may place one sign in the corner with a total sign area based upon the total frontage of both streets provided the maximum sign area shall not exceed 300 square feet per face.

iv Where a nonresidential subdivision has more than one entrance from the same street, one additional identification sign not exceeding 16 square feet in area, not illuminated, and displaying the name of the development only may be permitted at each additional entrance.

2. The maximum height of any identification sign shall be 24 feet.
3. Except as provided in subsection (2)a.1.iv of this section, the identification sign may be illuminated with a steady light, but the sign shall not be animated.
4. Identification signs shall be set back a minimum of 15 feet from any street right-of-way or easement, and ten feet from any other property line.

i This requirement will not be construed to forbid a wall sign that meets the size limitations of this section from being placed on the front wall of a building that is lawfully closer than 15 feet to a front property line.

ii In no case shall an identification sign be permitted between a collector or arterial street and a frontage road.

b. **Directory signs.** Nonresidential subdivisions and multiple-occupancy complexes of more than five establishments shall be permitted to place a directory sign on the same structure as the project identification sign, subject to the following limitations:

1. Each directory sign must be of the same background and lettering and color scheme.

2. Theaters may advertise on permitted identification signs provided the theater's copy area does not exceed 25 percent of the total permissible sign area.
3. The maximum size of sign area for all directory and ground identification signs shall not exceed the size and height limitations as written in subsection (2)a of this section. It shall be the responsibility of the developer to assure adequate space on the directory and identification sign for each tenant. Failure to provide space shall not be grounds for any occupant to request or obtain a variance from the provisions of this section.

c. **Individual occupants within multiple-occupancy complex.**

Individual offices, institutions, business or industrial establishments located within a multiple-occupancy complex shall not be permitted individual ground-mounted identification signs, but may display wall-mounted, marquee or under-canopy signs as follows:

1. **Wall signs.**

- i Wall signs are permitted on any wall facing a collector or arterial street or parking lot provided that the total sign area of the wall sign and any attached marquee or canopy sign does not exceed ten percent of the wall area.
- ii Where the wall abuts residentially zoned property or a delivery vehicle accessway, wall signs shall be limited to a maximum size of 24 square feet in area.

2. **Marquee signs.** Marquee signs are permitted only on marquees or canopies otherwise lawfully permitted or in existence. Marquee signs shall not extend horizontally beyond the edges of the canopy or marquee to which they are attached or from which they are suspended.

3. *Under-canopy signs.* Signs attached to the underside of a canopy shall have a copy area no greater than four square feet, with a maximum letter height of six inches, subject to a minimum clearance height of eight feet from the sidewalk, and shall be mounted as nearly as possible at a right angle to the building face, and must be rigidly attached.
 4. *Sign content.* No sign permitted by this subsection (2)c shall contain any advertising message concerning any business, goods, products, services or facilities which are not manufactured, produced, sold, provided or located on the premises upon which the sign is erected or maintained.
- d. *Interior directional signs.* Directional signs interior to a multiple-occupancy complex of five or more establishments or to a nonresidential subdivision may be permitted subject to the following:
1. Interior directional signs shall not exceed ten feet in height and 32 square feet in total sign area;
 2. Individual tenant panels not exceeding four square feet in area may be affixed to the interior directional sign structure provided that the total sign area does not exceed 32 square feet;
 3. Signs shall be located in a manner which will not adversely obstruct safe visibility between moving vehicles or vehicles and pedestrians;
 4. Signs shall not be visible from outside the complex premises.
- (3) **Individual office, institution, business or industrial establishments, and multiple-occupancy complexes with five or less establishments.** The following regulations shall apply for any office, institution, business or industrial establishment which is not located within a multiple-occupancy complex and to all multiple-occupancy complexes containing five or less establishments:
- a. Every individual office, business or industrial establishment, and a multiple-occupancy complex of five or less establishments, shall be allowed one ground-mounted sign.
 1. If the establishment has 50 feet or less frontage on a public right-of-way, the maximum sign area shall be 32 square feet, and the sign shall be located no closer than five feet to any side property line.
 2. If the establishment has over 50 feet and up to 100 feet of frontage on a public right-of-way, the maximum permitted sign area shall be 64 square feet, provided that no ground-mounted sign shall be closer than five feet to any side property line.*
 3. If the establishment has over 100 feet and up to 300 feet of frontage on a public right-of-way, the maximum permitted sign area shall be 72 square feet, and the sign shall be set back a minimum of ten feet from any side property line.*
 4. Establishments having over 300 feet of frontage on a public right-of-way shall be permitted up to 96 square feet of sign area, and the sign shall be set back a minimum of ten feet from any side property line.*
 5. Establishments having frontage on more than one public right-of-way may be allowed one additional ground-mounted sign on the secondary frontage of not more than 24 square feet in area.
 6. On corner lots, the occupant may be allowed one single ground-mounted sign rather than two separate ground-mounted signs (one per street frontage) provided the total sign area of the ground-mounted sign does not exceed 1 1/2 times the maximum size permitted on any one street frontage.
 7. In multiple-occupancy complexes of five or less occupants, ground sign area not identifying the

complex should be divided equally among the occupants.

Sec. 30-181. Off-site directional signs.

8. *Establishments in subsections (3)a.2-3-4 above that are located in Greater Pine Island and wish to place a ground-mounted sign are limited to a maximum sign area of 48 square feet (see section 30-91) and a maximum height and width of 12 feet (see section 30-92).
 - b. Maximum height of a ground-mounted identification sign shall be 20 feet.
 - c. Identification signs may be illuminated, but shall not be animated.
 - d. Wall-mounted, marquee or canopy signs may be displayed provided the total sign area of such signs plus any permitted ground-mounted identification sign does not exceed the total permitted sign area for the property based upon the calculations set forth in subsection (1) of this section, provided that not more than ten percent of any wall area may be used for signage. For Greater Pine Island only, internally illuminated box signs mounted on or projecting from a building are limited to a maximum sign area of 12 square feet per establishment.
 - e. Identification signs shall be set back a minimum of 15 feet from any right-of-way or easement.
 1. This requirement will not be construed to forbid a wall sign that meets the size limitations of this section from being placed on the front wall of a building that is lawfully closer than 15 feet to a front property line.
 2. In no case shall an identification sign be permitted between a collector or arterial street and a frontage road.
- (4) **Hospitals or other emergency medical facilities.** *[no changes required]*
- (5) **Electronic changing message centers.** *[no changes required]*

(a) *Residential developments.*

- (1) **Location; size.** Off-site, nonilluminating directional signs for subdivisions or residential projects shall be permitted along arterial and collector streets within 500 feet of the nearest intersection involving a turning movement to locate the development, subject to the following:
 - a. For a development proposing a single sign to serve the traveling public from two directions, the sign shall not be closer than 50 feet from the intersection and shall not exceed 64 feet in area.
 - b. For a development proposing two signs, one on each side of the intersection, the sign shall be a minimum of 100 feet from the intersection and shall not exceed 32 square feet in area.
- (2) **Number of signs; separation.** No subdivision or residential development shall be permitted more than two off-site directional signs, and no off-site directional sign shall be located closer than 100 feet to any other off-site directional sign.
- (3) **Setback.** Off-site directional signs shall be set back a minimum of 15 feet from any street right-of-way.
- (4) **Height.** No off-site directional sign shall exceed a height of eight feet.
- (5) **Copy area.** Off-site directional sign copy message shall be limited to the name of the development and directions to the development entrance. No advertising shall be permitted.

(b) **Semipublic bodies.** Off-site directional signs for semipublic bodies will be allowed subject to approval of the director or his designee, provided that:

- (1) **Number of signs.** No semipublic body shall be allowed more than two off-site directional signs. Signs serving two or more semipublic bodies and located at the same intersection shall use the same support structure as necessary.
- (2) **Location.** Signs shall be located along arterial and collector streets at the nearest intersection involving a turning movement to locate the organization.
- (3) **Height.** No off-site directional sign shall exceed a height of eight feet.
- (4) **Size; content.** Sign area shall be limited to four square feet, and signs shall contain only the name and logo of the semipublic body and a pointing arrow indicating the turn toward the organization.
- (5) **Design generally.** Off-site directional signs shall be of a construction and design approved by the director.
- (6) **Location in right-of-way.** Off-site directional signs may be allowed in the right-of-way with approval of the county engineer, based upon local and state highway safety standards, and shall be subject to future removal by the county.

(c) **Greater Pine Island only.** The Lee County Department of Transportation will fabricate, install, and maintain off-site directional signs in the right-of-way of Stringfellow Road and Pine Island Road in Greater Pine Island for qualifying businesses and organizations, as provided in Lee County's Commercial Use of Rights-of-Way Ordinance, Ordinance No. 88-11, as may be amended from time to time. Off-site directional signs that do not qualify for subsections (a), (b), or (c) of this section are not permitted.

Sec. 30-183. Billboards.

Billboards are permitted along I-75; and Alico Road, west of I-75; and Metro Parkway, from Daniels Parkway to Ben C. Pratt/Six Mile Cypress Parkway; and any arterial street within the county subject to the following limitations:

(1) Location.

- a. Except as otherwise provided in this section, billboards are permitted in any zoning district provided the area is shown on the county comprehensive plan as intensive development, industrial development, interchange areas or airport commerce. Arterial streets must be designated on the existing functional classification map, as in effect on March 20, 1991.
- b. No billboard will be permitted along:
 - 1. Ben C. Pratt/Six Mile Cypress Parkway.
 - 2. Summerlin Road.
 - 3. McGregor Boulevard.
 - 4. Daniels Parkway/Cypress Lake Drive corridor from McGregor Boulevard to SR 82, which includes Cypress Lake Drive, Daniels Parkway, the proposed Daniels Parkway extension, Fuel Farm Road, portions of Chamberlin Parkway and any other roads which are not stated in this subsection but are located within such corridor.
 - 5. Colonial Boulevard east of I-75.
 - 6. Alico Road east of I-75.
 - 7. Koreshan Boulevard.
 - 8. Corkscrew Road.
 - 9. Treeline Avenue Corridor from Daniels Parkway to Bonita Beach Road. This prohibition includes Ben Hill Griffin Boulevard and any other roads which are not stated in this subsection but are located within this corridor. This prohibition specifically contemplates the future renaming of Treeline Avenue.
 - 10. Pine Ridge Road.
 - 11. South Pointe Boulevard

(2) Separation. Minimum distance separation will be as follows:

- a. Within industrial/business and intensive business areas, 2,000 feet

from any other billboard on the same side of the street.

- b. Within interchange areas, 1,320 feet from any other billboard on the same side of the street.
- c. Within airport commerce areas, 2,000 feet from any other billboard on the same side of the street.

No billboard may be located closer than 100 feet to any intersection with another arterial road.

- (3) **Size.** No billboard may be less than 72 square feet in area per face or more than 400 square feet in size. Embellishments may not extend more than four feet from the top edge or more than two feet from any one side edge. On Alico Road, west of I-75, billboards may not exceed 380 square feet in size.
- (4) **Height.** Billboards may not exceed a height of 20 feet when placed at the sign setback line set forth in subsection (5) of this section, except that, for every two feet the sign is placed back from the required setback line, the height of the sign may be increased by one foot, to a maximum height of 30 feet.
- (5) **Setbacks.** All billboards must be set back a minimum of ten feet from any property line and any building as measured between the closest point of the sign to the property line or building.
- (6) **Roof signs.** Billboards are prohibited on any roof portion of any building.
- (7) **Copy area.** The billboard advertisement shall cover the entire copy area of the billboard.
- (8) **Maximum number of signs per structure.** Each billboard structure shall be limited to a single sign, which may be single- or double-faced, but side-by-side or vertically stacked (double-tier) signs shall be prohibited.
- (9) **Illumination.** Billboards may be illuminated provided that, if external lighting such as floodlights, thin-line or gooseneck reflectors are used, the light source shall be directed onto the face of the sign and shall be effectively shielded so as to prevent beams or rays of light from being directed into any portion of the street right-of-way.
- (10) **Revolving signs.** Billboards may be a revolving sign as defined in this chapter,

but shall not consist of animation or flashing devices.

(11) **Variations and deviations.** No variations or deviations from subsections (1) or (6) through (10) may be granted.

(12) **Landscaping for billboards on Alico Road, west of I-75.** *[no changes required]*

(13) **Billboards in Greater Pine Island.**

Some billboards remained in place in Greater Pine Island despite the longstanding prohibition against billboards and other off-site advertising and directional signs. These signs may have been nonconforming signs or they may have been illegal signs. Within 12 months after adoption of section 30-181(c) into this chapter, all remaining billboards must be brought into compliance by one of the following means:

- a. Some billboards may be replaced with off-site directional signs installed in rights-of-way by Lee County Department of Transportation pursuant to section 30-181(c).
- b. Some billboards may continue to qualify for nonconforming status and can remain in place, subject to the restrictions in section 30-153(b)(1)-(b)(4).
- c. All billboards in Greater Pine Island that cannot demonstrate continual compliance with this chapter's nonconforming standards are illegal and must be removed (see section 30-153(b)(5)).

AMEND LEE COUNTY'S "COMMERCIAL USE OF RIGHTS-OF-WAY ORDINANCE," ORDINANCE 88-11 AS AMENDED, AS FOLLOWS:

SECTION 5: EXCEPTIONS

The commercial use of the right of any road, street, or highway with the county road system is expressly prohibited, except that the commercial uses listed below may occur in the public rights-of-way, but only in compliance with the requirements and conditions set forth herein:

- A. **County permitted or Sponsored Special Events** *[no changes proposed]*
- B. **Newspaper Vending Racks or Machines** *[no changes proposed]*
- C. **Bus Benches** *[no changes proposed]*
- D. **Utilities** *[no changes proposed]*
- E. **Commercial Loading or Unloading** *[no changes proposed]*
- F. **Mobile Food Vendors** *[no changes proposed]*
- G. **Directional Signs (Greater Pine Island only)**

The Lee County Department of Transportation will fabricate, install, and maintain off-site directional signs in the right-of-way of Stringfellow Road and Pine Island Road in Greater Pine Island for qualifying businesses and organizations.

- 1. "Greater Pine Island" means the area that is affected by Lee Plan Goal 14 as depicted on the Future Land Use Map and as described in section 34-2 of the Lee County Land Development Code.
- 2. "Qualifying businesses and organizations" means one of the following types of for-profit, non-profit, or governmental entities currently operating in Greater Pine Island on a parcel of land that does not have road frontage on CR 767 (also known as Stringfellow Road, Oleander Street, and Main Street) or on CR 78 (also known as Pine Island Road):
 - a. Motels/hotels/bed-and-breakfast inns
 - b. Restaurants
 - c. Retail sales and personal services
 - d. Marinas
 - e. Farms or nurseries regularly offering retail sales
 - f. Transient RV parks
 - g. Educational, cultural, and religious institutions
 - h. Governmental agencies
 - i. Other tourist-oriented businesses

- i. "Qualifying businesses and organizations" will not include residential or mobile home communities and will not include any entities that are not regularly open to the public.
- 3. Qualifying businesses and organizations may apply for a single off-site directional sign to be fabricated, installed, and maintained by the Lee County Department of Transportation in the right-of-way of Stringfellow Road or Pine Island Road.
 - a. Each directional sign will be placed just ahead of the nearest street that intersects with Stringfellow Road or Pine Island Road.
 - b. The exact location and placement of each sign will be determined by the DOT in accordance with established clear zone standards and based on additional operational and safety factors for each sign location. If no acceptable location can be found for a requested sign, the application fee will be refunded.
 - c. Directional signs for up to three businesses may be placed on each pair of sign supports. If additional signs are needed, an additional set of sign supports will be installed if sufficient space is available.
 - d. Each directional sign will contain only the name of the qualifying business or organization, a directional arrow, and optionally the appropriate international symbol (such as lodging, food, marina, camping, library, etc.). Lee County DOT will determine the size of the sign and the font size and type for its lettering, and after consultation with the applicant may shorten the name to ensure legibility to motorists.
 - e. Applications must be made on forms provided by DOT and must be accompanied by the application fee as specified in the External Fees and Charges Manual (Administrative Code 3-10). An additional fee must be paid annually for the anticipated average cost to maintain and mow around each sign.

ADDENDUM L
ENGELHARDT HAMMER & ASSOCIATES
REPORT



ENGELHARDT, HAMMER & ASSOCIATES

Planning • Engineering • Landscape Architecture

June 14, 2004

Mr. Woody Hanson, MAI
Hanson Real Estate Advisors, Inc.
2233 Second Street
Fort Myers, FL 333901-3051

Re: Analysis & Issues Related to Greater Pine Island Community Plan Update

Dear Mr. Hanson:

Pursuant to your request, we have completed our analysis of specific aspects of the Greater Pine Island Community Plan Update (GPICPU) to assist you in your economic analysis of the impacts of that proposed plan. Specifically, we have completed our research regarding the 810 / 910 Rule and the density recapture model. Research conducted for the 810 / 910 Rule focused primarily on the methods used to establish the rule, changes, or advances in analysis techniques since the rule was established and possible considerations that should be given to amending the Lee Plan in order to provide relief. Research conducted for the density recapture model referred primarily to relevant language approved by the Greater Pine Island Land Use Plan Implementation Committee (the Committee) for adoption by the Lee County Board of County Commissioners (BOCC).

I. 810 / 910 RULE

The 810 / 910 Rule was developed to control the amount of future growth on Greater Pine Island by controlling the level of traffic on Pine Island Road. The rule represents 80 percent and 90 percent, respectively, of the total peak hour, annual average two-way trips of a road capacity for Pine Island Road at level-of-service (LOS) "D." The corresponding 100 percent roadway capacity at LOS "D" of 1,010 trips was calculated using the 1965 Highway Capacity Manual (HCM), written by the Transportation Research Board (TRB).

The 810 / 910 Rule is applied and the roadway capacity is measured at the County's permanent count station along Pine Island Road, on Little Pine Island. According to the Lee Plan, this standard is measured using the methodology described in the 1985 HCM (also known as Special Report 209). Therefore, the threshold was established utilizing 1965 methodology, whereas the on-going measurement for compliance is conducted

utilizing 1985 methodology. The LOS for other roadways within the County is measured utilizing current methodology, as included in the 2000 HCM (also referred to as HCM2000).

Differences in the 1965, 1985 and 2000 HCM's

The Institute of Transportation Engineers (ITE) Journal article titled, "Capacity and Level-of-Service Concepts in the Highway Capacity Manual (April, 1987)", highlights changes in the HCM from the 1965 to the 1985 edition. The ITE Journal article titled, "The Year 2000 Highway Capacity Manual (June, 2002)", highlights changes in the HCM from the 1985 edition to the 2000 edition. Some of the changes noted in these articles are described below. In addition, the manuals were reviewed directly for changes to the relevant sections regarding capacity and LOS.

Rate of flow vs. full-hour volume

The 1985 and 2000 HCM's deal with *hourly rates of flow* during a peak 15-minute interval within the analysis hour, while the 1965 HCM deals with *full-hour volumes*. The later methodology can be more accurate in analyzing potential traffic breakdowns as the roadway condition approaches capacity.

Broader range of variables/factors in determining capacity

The 1965 HCM vehicular capacity for a given roadway is influenced by a number of roadway and traffic factors. Such factors include: lane width, lateral clearance, shoulders, auxiliary lanes, surface conditions, alignment, grades, trucks, buses, lane distribution, variations in traffic flow and traffic interruptions. These factors help to adjust the fundamental capacity value associated with a roadway under ideal conditions.

The factors used in the updated 1985 HCM are similar, however, expanded. The updated list of factors include: the type of facility and its development environment (uninterrupted flow, medians, urban, rural), lane width, lateral clearance, shoulder width, design speed, no passing zones, horizontal alignments, vertical alignments, lane use and directional distribution, directional split of traffic, vehicle types (trucks, recreation vehicles, buses) and traffic control devices (traffic lights, turning restrictions, stop signs).

The 2000 HCM uses many of the same variables as the 1985 manual, however, some of the assigned values as well as the analysis procedures have been updated. Two classes of two-lane highways are included for separate analysis: *Class I* facilities for relatively higher speed routes with more urban characteristics, and *Class II* facilities for less urban or scenic/recreational routes. Furthermore, under certain roadway conditions, directional analysis can be done in addition to the regular two-way approach.

Capacity criteria for two-lane highways

The 1985 HCM increased the vehicular capacity criteria of the 1965 HCM for two-lane highways by 40% from 2,000 to 2,800 passenger cars per hour; however, this capacity level assumes ideal conditions. Also, the 1985 HCM contains a broader range of variables to be considered in analyzing capacity. The 2000 HCM further increases the base capacity to 3,200 passenger cars per hour for a 50/50 directional split, two-way analysis. For a directional analysis, the base capacity is set at 1,700 passenger cars per hour.

Measures of LOS

Density is a new measure used in the 1985 HCM to measure LOS; however, it is primarily used on multilane, uninterrupted flowing highways. *Delay* is another new measure used in the updated manual. More specifically, *percent time delay* is a concept applied to two-lane, two-way rural highways to measure the effects of a slow-moving lead vehicle on following vehicles and their ability to pass. This is considered the principal operational problem on such roadways.

Speed as a measure of capacity has changed in regard to methodology. "Operating speed" from the 1965 HCM – used to determine the maximum safe speed at which a vehicle could travel in a given traffic stream – was replaced by "average speed" and "average running speed" in the 1985 Highway Capacity Manual. The new measures are averages of distance over time.

In the 1965 HCM, the LOS for "two- and three-lane highways" was evaluated using the basic elements of minimum operating speed and maximum volume-to-capacity ratio. The 1985 HCM uses percent time delay, average travel speed and capacity utilization to evaluate "two-lane highways" as the measure of effectiveness for LOS.

LOS has been further redefined in the 2000 HCM. For Class I two-lane highways it is defined as a function of the *average travel speed* and *percent time spent following (PTSF)*. For Class II two-lane highways it is simply *PTSF*. *PTSF* is nearly the same as the former percent time delay as used in the 1985 HCM – with only a few value changes.

Amending the Lee Plan

810 / 910 Rule

Three different HCM's are cited in the Lee Plan for years 1965, 1985 and 2000¹. The later, 2000 HCM is cited in the Transportation section of the Lee Plan as the basis for calculating LOS. Specific to the subject location along Pine Island Road, two different HCM's are cited. The GPICPU has proposed amending a policy of the Lee Plan to cite the 1965 HCM as the basis for calculating the 810 and 910 thresholds for LOS "D." Meanwhile, the Lee Plan currently states in Policy 14.2.1 that the minimum acceptable LOS standard for Pine Island Road (in the subject location) will be measured using the methodology described in the 1985 HCM. While these statements are not facially inconsistent, they are confusing in that one manual is used to calculate the standards while a newer, 20-year updated manual is used for the methodology in taking the actual measurements. Nevertheless, staff from the Lee County DOT claim that the 2000 HCM is the manual used throughout the County to calculate LOS and to determine capacity. Finally, both of these manuals (1965 and 1985) are outdated as, according to the TRB, the latest, 2000 HCM is the industry standard that is currently used today.

Consideration should be given to amending the appropriate policies of the Lee Plan to use one HCM instead of three as is currently the case. This would help to improve the Lee Plan's overall implementation by adopting a single HCM that can be used as the basis for applying methods and standards related to roadway capacity. Specifically, the 2000 HCM should be considered as the single manual used and referred to, as it contains the most recent up-to-date methodologies and industry standards used.

¹ This includes the proposed update language of the GPICPU.

Consideration should also be given to changing the 810 / 910 Rule to an "80% / 90% Rule." The original standard represents specific traffic figures as calculated using the 1965 HCM. These figures correlate to 80 percent and 90 percent of the total peak hour, annual average two-way trips at a road capacity at LOS "D". If the Lee Plan is amended to refer to a single, updated HCM as proposed above, the 810 and 910 figures most likely will not correspond to calculations based on current methodology. Therefore, changing the 810 / 910 Rule to a "80% / 90% Rule" would maintain the intent of the policy applied to regulating future development on Pine Island based on traffic volume along Pine Island Road.

Sustainable Development Proposals

Consideration should be given to amending the Lee Plan and/or the LDC to allow destination and neighborhood-oriented commercial, office and retail service areas that could be expected to alleviate traffic on Pine Island. Such service areas may consist of uses such as medical offices, neighborhood convenience stores, bank branches, hardware stores, gas stations and small grocery stores. The objective of the proposal is to provide limited land uses that would give Pine Islanders greater convenience to obtain goods and services without crossing the bridge to the mainland. At the same time, uses and services that are oriented more toward the convenience of Pine Islanders would not likely encourage patronage trips from the mainland. As a result, overall traffic to and from the island on Pine Island Road could be improved.

Feasible Traffic Solutions

Alternative Connections to Pine Island

No economically feasible alternative traffic solutions exist for connecting Pine Island to the mainland. The cost of such an undertaking would include new roadway and bridge construction, which would result in wetland crossing and open water crossing (of at least a mile). This option is currently prohibitive based on cost and feasibility of obtaining environmental permits.

Widening Pine Island Road

Besides the existing bridge width constraints between Pine Island and the mainland, Pine Island Road through Matlacha is also constrained. In fact, the County has designated this segment of roadway through Matlacha as "constrained," as identified in Table 2(a), *Constrained Roads*, of the Lee Plan. Lee Plan Objective 22.2, *Constrained Roads*, states that constrained roadways will not be widened. Widening and adding lanes to other segments of Pine Island Road without doing the same through Matlacha would only create bottleneck conditions for traffic approaching the constrained area (as well as crossing the bridges).

Matlacha is a Lee County-designated historic district. Many of the buildings along Pine Island Road in the district abut the right-of-way directly or are located very close to it. According to a 1982 estimate cited in the GPICPU, widening the existing right-of-way to 90 feet (from 66 feet) would result in as many as 75 businesses and homes being altered or removed. This endeavor would be cost prohibitive.

Working within the existing 66-foot wide right-of-way conditions through Matlacha, it may be possible to increase the number of lanes from two to three. The additional lane could function as a two-way left turn lane or a reversible lane to accommodate the heavier directional flow of traffic during the AM and PM hours. However, adding a traffic lane

would require road widening, which could exacerbate the problems of pedestrian circulation and parking for business and homes in an area with little room for adjustment.

It is physically possible to reconstruct this segment of Pine Island Road within the 66-foot right-of-way into a four lane road; however, this configuration would not allow for left-turn bays and would eliminate existing, much needed parking currently within the right-of-way used by stores and homes, as many of the buildings are located along or near the right-of-way edge. Regardless of any of these measures taken to increase the number of lanes through Matlacha, such actions would still be limited to the constraints of the adjacent two-lane bridges.

II. DENSITY RECAPTURE MODEL

The *density recapture model* of the Lee Plan, Policy 1.4.7 and associated Land Development Code (LDC) Section 34-655, as approved by the Committee to be sent to the BOCC for adoption, affects permitted dwelling unit densities based on the percentage of preserved or restored native upland habitats. The model is a sliding scale allowing increases in density per increases in preservation and restoration. If no land is preserved or restored accordingly, a maximum of one (1) dwelling unit per ten (10) acres is permitted. A maximum density of one (1) dwelling unit per one (1) acre would be permitted if 70 percent of the land were preserved or restored to native upland habitat.

This sliding scale does not address farmland preservation². Therefore, farmers are subject to the same requirements as non-farmers when preparing land for development. However, most farmed lands do not have native upland habitats remaining. Thus, a farmer desiring to develop his/her farm into a residential subdivision would be allowed to develop at one (1) dwelling unit per ten (10) acres without taking any preservation or restoration measures. For an increase in density, a farmer would need to restore upland areas by re-creating native habitats that had been typical of Greater Pine Island. The greater percentage of farmland restored to native habitat (or any land restored for that matter), the greater residential density permitted.

Restoration Requirements for Increased Density

The Committee-approved language of the LDC sets requirements for restoring native habitats. In addition, standards must be followed for plant-type species and hydrologic conditions as set forth in the *Multi-Species Recovery Plan for South Florida*, published by the *U.S. Fish & Wildlife Service*. This document is a reference source describing native habitats found on Greater Pine Island. The general requirements of the LDC are as follows:

- Correct interruptions of original water flows and assure proper hydrology appropriate for the benefit of restored native habitats
- Prepare site including removal of non-native vegetation, roller chopping, bush hogging, prescribed burning, herbiciding, etc. as necessary

² Although native habitat is required for restoration, a portion of existing farmland can be included toward the overall area contributed for restoration. Proposed language in the Land Development Code (LDC), Section 34-655 (d)(1)b.3. would allow up to 10% of the preserved or restored area to consist of commercial or non-commercial agricultural land.

- Plant native pine trees at 50 – 200 trees per acre, depending on species and habitat
- Fertilize at the time of planting and weed control for at least two years following
- Plant midstory shrubs and understory plants in groupings or clusters with an average spacing of three (3) feet on at least 50 percent of the acreage being restored

The Cost of Restoration

On March 4, 2004, the Committee approved implementation language for the associated policy to be sent to the BOCC for adoption. Included in the Committee's approval was a suggestion to the BOCC that an independent evaluation of the costs of restoration and maintenance be done by the County or another agency.

We researched and analyzed the cost of fulfilling the requirements as a part of the total cost of restoration. Habitat restoration cost analysis attempted to include all aspects of the restoration methodology as outlined above.

Design and Permitting

The initial step in the restoration process is a requirement to restore the original topography of the pre-farming condition and to create a hydrological condition that is conducive to the sustainability of the desired native habitat. This phase of the restoration is certainly the most time consuming and costly.

Most of the farms on the island have an elaborate system of ditches and dikes to accommodate the predevelopment runoff onto the property and to control saltwater intrusion from impacting the water balance of the property. Large on-site retention systems are designed to detain and treat farm runoff before it leaves the property. These water control features are all part of individual stormwater management permits issued by the South Florida Water Management District (SFWMD). These permits include extensive requirements for ongoing monitoring and maintenance of the systems.

Restoration of the farmland to its original topography and hydrological condition would require a significant modification of the original SFWMD permit, as well as major earthwork to remove the existing system of ditches and dikes. It would also require the design of a habitat that met the requirements of the GPICPU restoration standards. The coordinated efforts of both an engineering consultant and an environmental consultant would be required to design and permit the habitat restoration as well as modification of the previously permitted stormwater system.

The existing farmlands have all been laser-leveled and have been improved with elaborate underground irrigation systems. The existing irrigation systems would have to be removed, redesigned to accommodate the design of the restored habitat, and reinstalled to reflect the desired random/cluster planting pattern specified for the recreated habitat.

The original soil profile of the farmland has been altered through years of farming and plantings. Proper design of the desired habitat type would require contouring of the soil surface to create a soil mix that would support the desired plantings. In addition, the final ground level of the restoration area would need to be surveyed and engineered to

create a topography that would adequately drain all areas of the tract of land to support the desired upland habitat.

The combination of the design, permitting, and physical alteration of the site from its current condition to the desired final restoration condition is an extremely costly endeavor. Costs for these tasks could range from \$10,000 to \$30,000 per acre. These cost estimates are based on actual costs expended for similar permitting and earthwork tasks.

Native Pine Trees

As a part of the requirements for habitat restoration, native pine trees must be planted at a density between 50 and 200 trees per acre. The most common native pine on Pine Island is *slash pine*. The requirements allow them to be planted as seedlings, as opposed to planting a larger, more maturely developed tree.

For the most part, landowners can take two different approaches to completing this planting obligation: purchasing and planting with assistance from the Florida Division of Forestry, or purchasing and planting privately through a nursery and hiring planters (or landscapers) to plant the seedlings. The cost of each approach is outlined separately below.

Planting with the Florida Division of Forestry

We contacted the Division's *Andrews Nursery* located in Chiefland directly for information. According to staff at *Andrews Nursery*, the Division will sell the pine tree seedlings to landowners and assist with planting. The cost to purchase the seedlings ranges from only 4 to 12 cents each, depending on the quantity ordered, with a minimum quantity of 250 seedlings. The seedlings are normally about 4 to 6 inches tall at planting. The Division usually will only plant in large quantities and usually plants at least 50,000 seedlings per job. Furthermore, they typically don't plant on less than ten acres. Planting by hand typically costs from \$60 to \$70 per acre. Planting by machine (which has a lower rate of growing success) typically costs from \$30 to \$50 per acre. Planting with the more accurate hand-method at the minimums necessary would cost an average of about \$85 per acre. Although the Division claims reliable and fast growth, anecdotal experiences from some land owners claim success rates much lower.

Planting with a private nursery and planters

We contacted the nursery and landscape company, *Big Tree, Inc.*, located in Fort Myers directly for information. According to the estimating department at *Big Tree*, the cost for slash pines would run about \$1.25 per seedling. (The seedling size could not be exactly determined, but would probably range near the size typical from *Andrews Nursery*.) To purchase approximately 100 seedlings, deliver and install across one acre would cost approximately \$1,000.

Native Midstory Shrubs and Understory Plants

As a part of the requirements for habitat restoration, native midstory shrubs and understory plants must be planted in groupings or clusters on at least 50 percent of the acreage being restored. While the requirements aren't specific in quantity, we conferred with *Spikowski Planning Associates* in Fort Myers – the planning consulting firm assisting with the language of the GPICPU – that this would likely amount to approximately 75 plants per acre. At least five plants from a list of eight species must be

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used. The requirements permit planting of containerized plants or tubelings (of not less than 4.5 inches in depth). Unlike the native pines, the Florida Division of Forestry currently does not have a program to assist with this obligation.

We contacted the native plant restoration company, *Central Florida Native Flora, Inc.*, located in San Antonio, Florida for information. According to the company, the cost to fulfill this obligation would be about \$400 - \$500 per acre. This would include a variety of five one-gallon container plants from the list of eight species in pots about six inches in diameter and six inches deep.

Chemical control

The GPICPU requires that native plants must be fertilized to insure their survivability and the planted area must be herbicided to prevent the intrusion of weeds. This must be done for a period of at least two years. The cost of the materials and the labor to complete this task would be in the range of at least \$2500 per year.

Annual Monitoring Reports

Our office researched the cost of conducting the necessary field work and reporting by a qualified professional in order to gather an estimate of cost to satisfy the annual monitoring requirements. We contacted Rosanne Clementi of *Southeast Environmental Solutions, Inc.* located in Plant City for information. They determined that the total cost would be approximately \$6,000 per acre, over three years; or \$2,000 per acre, annually.

Total Cost

Overall, we determined the total cost of restoration to range from approximately \$20,000 to \$40,000 per acre.

Criteria and Timing for Restoration Approval and Success

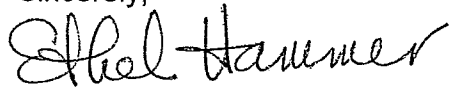
In order to begin development, a bond can be posted prior to restoration – as with many other assurance guarantees typically required with development to assure compliance. As previously mentioned, annual monitoring reports are required for a minimum of three (3) years that show an 80 percent minimum survival rate for the required number of each species planted. A finding can be issued by the director that the restoration has been successfully completed after acceptable reviews of the monitoring reports.

The guarantee of preservation must include a perpetual conservation easement granted to a government body or agency or to a qualified charitable corporation or trust. The ownership of the permanently preserved native habitats can be transferred to a homeowners' or condominium association or may be retained by the original landowner (or another private party). If the landowner wishes to retain ownership they must present legal documents for review and approval by the County that demonstrate the ability to carry out the ongoing management of such areas.

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Please contact our office with any questions or concerns.

Sincerely,

A handwritten signature in black ink that reads "Ethel Hammer". The signature is written in a cursive style with a large, prominent "E" and "H".

Ethel D. Hammer
Principal

Cc: Scott M. Swearngen

EDH/sms