Martin and St. Lucie Counties Regional Land Use Study Final Report

January 2002

Study Coordinated by the

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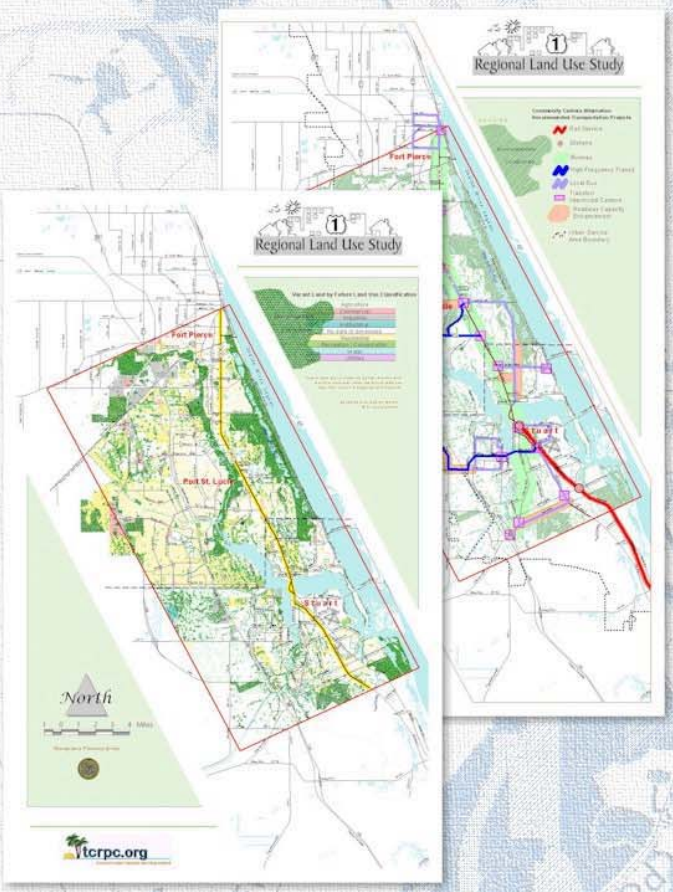
treasure coast regional planning council



Funding Partners:

Martin County
St. Lucie County
City of Stuart
Florida Department of Transportation
Florida Department of Community Affairs

Other Participating Agencies

Treasure Coast Regional Planning Council
City of Port St. Lucie
City of Fort Pierce
St. Lucie County
Community Coach

Prepared by

Renaissance Planning Group

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

INTRODUCTION

This Executive Summary provides a concise overview of the Regional Land Use Study for Martin and St. Lucie Counties, an examination of future land use patterns and transportation options in a nearly 200 square mile area of Florida's Treasure Coast. With a study area that extends from the southern end of Fort Pierce in St. Lucie County to south of Port Salerno in Martin County, and including all land to the western edge of the urban service boundary for both Martin County and St. Lucie County, this is a unique undertaking involving multiple public agencies and stakeholders.

The Regional Land Use Study is intended to address some of the major regional growth management issues facing the St. Lucie and Martin County study area, identify possible courses of action and set a regional framework for improved coordination of land use and transportation decisions. To support that ambitious objective, the study completed the following major tasks:

- An inventory and analysis of vacant land and potential redevelopment areas in the urban service area to accommodate the area's projected population in 2025;
- Analysis of market demand, alternative regional development patterns and land use scenarios to identify an effective way to manage that growth;
- Identification of transportation projects and their costs to support future land use recommendations, and
- A framework for moving forward with the recommended plan.

The Regional Land Use Study does not mandate any changes in growth management policy or transportation priorities for local governments, or state agencies, in the study area. Rather, it is a quantitative analysis to provide technical and policy support to local elected officials and their staff, as well as state agencies like the Department of Transportation and Department of Community Affairs, regarding regional approaches for managing growth in the area. It is hoped that through this study process and vision, local and state officials will work cooperatively to address regional land use and transportation challenges in a way that makes efficient use of resources, meets future mobility needs and builds public confidence.

STUDY PROCESS OVERVIEW

The Treasure Coast Regional Planning Council is coordinating the Regional Land Use Study, with agency funding and participation from Martin County, St. Lucie County, the City of Stuart, the Florida Department of Transportation and the Florida Department of Community Affairs. Other actively participating agencies included the Treasure Coast Regional Planning Council, the Cities of Ft. Pierce and Port St. Lucie, and the St. Lucie County Community Coach (public transportation provider).

The study is being conducted in two phases. This Executive Summary presents findings and recommendations from the first phase of the study, which is funded through local and state sources. The second phase of the study is funded through a federal grant, and is focused on the strategies needed to implement the vision within the study area. Phase II is scheduled to begin early this year and conclude in mid-2002.

Throughout the 18-month timeframe for the first phase of this study, a steering committee of participating local and state agencies has met monthly to provide technical and policy guidance and review of draft work products completed by the consultant hired for the study. In addition, the study was structured around an active public participation program that included accessible public workshops, newsletters, displays, presentations, a website and other ways to involve citizens and interest groups in the process. The study's recommendations reflect the technical analysis completed in combination with those public participation opportunities.

STUDY CONTEXT AND PURPOSE

The premise of the Regional Land Use Study is to evaluate the degree to which changes in the area's land development patterns may influence future transportation needs and priorities. Because of its economic, land use, demographic and physical characteristics, the St. Lucie County and Martin County study area is facing significant capital improvement costs to expand US 1 to meet the growth in traffic volume between the two counties. The Department of Transportation has identified the need to expand the highway to eight lanes in several locations, and construct grade-separated interchanges at Jensen Beach Boulevard and Port St. Lucie Boulevard. These overpasses alone are projected to cost about $80 million, and are not affordable given more than $1 billion in other transportation projects cumulatively identified in

the adopted 2025 Long Range Transportation Plans for the St. Lucie and Martin County Metropolitan Planning Organizations (MPOs).

In light of the area's land use characteristics and transportation prospects, its local governments have undertaken this study to assess future conditions and examine alternative land use strategies that could help achieve more balance in the transportation system, promote economic development, preserve natural resources and enhance the area's quality of life. Through an inventory of conditions and through discussions with the community at public workshops, Real Estate Roundtable participants, Steering Committee members, and other forums, land use and transportation challenges facing the study area include:

- Large areas of platted, undeveloped residential lots in individual ownership, which limits the ability to assemble land for significant development (primarily in Port St. Lucie);
- A sizable imbalance in the location of housing and jobs, resulting in long work trip commutes and economic inequities between the two counties;
- A predominant suburban orientation with relatively few well-defined centers;
- Physical and environmental features that limit roadway connectivity and allow for only a few, increasingly congested, continuous routes serving the area;
- Prevailing market demand from the western portion of the urban services area that results in underutilized and vacant parcels in the older, established commercial core areas, and
- A relative lack of viable alternatives to automobile travel, placing additional pressure on the existing roadway system.

To address those challenges, the study addressed the following key questions:

- Can developable land within the existing urban service area boundaries of both counties fully accommodate projected population and employment growth through 2025?
- Can an alternative land use and transportation development scenario eliminate or at least delay the need to construct major roadway capacity expansions along US 1?
- How can US 1 evolve into a true multi-modal corridor that supports expanded travel choices?

MAJOR FINDINGS AND RECOMMENDATIONS

The future conditions analysis for the study evaluated three distinct land use scenarios: a continuation of existing development trends through the year 2025; a redirection of future growth into the US 1 corridor to achieve higher population and employment densities which will allow for advanced forms of public transportation like rail service; and clustering development in

dispersed town centers located throughout the area. Each scenario included its own unique set of transportation system improvements. The evaluation used the regional travel demand model and other tools to project the impacts of each alternative and determine the effectiveness of various transportation solutions. Results are summarized as follows:

SUMMARY CONCLUSIONS

Over the next 25 years, local governments should work cooperatively to concentrate future residential and commercial development in a series of compact, mixed-use centers spread throughout a large part of St. Lucie and Martin Counties. Such "community centers" would help sustain the local economy, expand travel choices and avoid building costly interchanges on US 1. These compact centers would include a mix of apartments, retail stores and offices to serve nearby areas. Bicycle paths, buses and, perhaps in the future, trains would connect centers to each other and to other parts of the region and state. This is necessary to create sufficient concentrations of development to reduce trip lengths and encourage interaction between uses.

Other recommendations are to build a select few new roads, such as the West Virginia Corridor in Port St. Lucie and the Western Corridor in Martin County, and expand public transportation services, particularly north-south along US 1, to better connect future community centers and reduce traffic congestion. The Florida Department of Transportation (FDOT) is providing funding to initiate fixed route transit service on US 1 in Martin and St. Lucie Counties. The findings from this study support the programmed fixed route service.

The analysis indicates that traffic congestion between the two counties would be significantly lower by focusing development in distinct clusters located throughout the area. With the creation of multiple town centers that include jobs and shopping closer to existing residential areas, future residents will experience shorter trip distances, better public transportation service and less road congestion. The study indicates that building two new interchanges on US 1 at Jensen Beach Boulevard and Port St. Lucie Boulevard, as recommended by FDOT's *US 1 Corridor Alternatives Study* and the two MPOs' 2025 Long Range Transportation Plans, would not be needed under the Community Centers scenario.

While US 1 will continue to carry more than 60,000 cars per day, the road would have fewer miles of congestion than if current development patterns continue or if redevelopment is concentrated within the US 1 corridor. Community Centers, if carefully designed to ensure

building proximity and a walkable environment, could occur as redevelopment in older strip commercial buildings along US 1, or new construction in undeveloped areas within the urban services boundaries of each county. Creating such centers helps reduce the number of inter-county trips and improve conditions for residents and local governments by diversifying the local employment and tax base.

Specific findings in support of the recommendation to plan for Community Centers are:

1. **Absorption of future population and employment growth:** According to state and local sources, the study area is projected to increase by 170,000 in population (from about 190,500 currently to 360,000 by 2025) and to increase by 65,000 employees (from 60,000 currently to nearly 125,000) by 2025. The vacant and redevelopable land inventory analysis concluded that, if current land consumption trends continue, there would not be enough land within the urban service area to accommodate the projected growth. However, if the more efficient land use pattern under the Community Centers vision were implemented, there would be sufficient developable or redevelopable land within the existing urban service area boundaries to accommodate future growth.
2. **High-Capacity Projects on US 1:** FDOT's *US 1 Corridor Alternatives Study*, completed in 1998, recommended major capacity expansions along US 1 at Port St. Lucie Boulevard in St. Lucie County and at Jensen Beach Boulevard in Martin County. Detailed technical evaluation conducted as part of this *Regional Land Use Study* concluded that, with implementation of the Community Centers Vision (Page ES-7), critical lane volumes (including turn lanes) at these intersections in the year 2025 fall below the threshold needed for grade separation or other limited access modifications to US 1.
3. **Improve Roadway Connectivity:** The alternative land use and transportation analysis shows that the West Virginia Corridor in St. Lucie County, the Western Corridor in Martin County, Green River Parkway and several other smaller connections, such as an extension of Britt Road, are important in meeting the mobility needs of the area. The area desperately needs to create travel options to US 1 and the few existing east-west corridors that link I-95, the Turnpike and US 1. These projects support the Community Centers scenario by improving regional accessibility to the existing and emerging centers, and contributing to a more balanced road system.
4. **Develop US 1 as a Multi-modal Corridor:** In support of the revitalization and redevelopment plans of downtown Fort Pierce and Stuart, and creation of a new downtown in Port St. Lucie, a seamless public transportation system should be implemented that effectively links the two counties and activity centers along US 1. Beyond operating the service, however, adjacent land uses need to evolve in a way that provides an improved pedestrian and bicycling environment to increase support for public transportation. This requires attention to building and street design, infrastructure such as shelters and visible pedestrian connections, and an increasing diversity of land uses along the corridor. Ultimately, the analysis indicates that there is benefit to the overall transportation system of providing higher capacity forms of premium transit

service in the US 1 corridor. The region should work toward the long-term objective of developing a dedicated lane for buses within the US 1 right-of-way, and initiating regional rail service linking the area with Palm Beach County and points south.

5. **Long-term Costs and Benefits.** The transportation projects needed to support the Community Centers vision with an adequate level of mobility result in a cost of about $615 million. That amount includes completion of several roadway construction projects as well as public transportation investments in fixed route bus service, a busway within the US 1 corridor, and passenger rail service linking the study area with Palm Beach County. Recommended projects are listed in *Chapter 3*. This cost estimate is less than half (about 41 percent) of the projected combined cost of the adopted 2025 Long Range Transportation Plans for St. Lucie and Martin County MPOs. In addition, future congestion levels on US 1 and selected other corridors are lower under the Community Centers alternative than with the adopted plans.

6. **Implementation.** The development of Community Centers as an alternative land use framework for the study area requires a stronger focus on regional planning and intergovernmental coordination. Local governments must coordinate resources and target incentives and disincentives in an organized way to influence the market demand for the desired development pattern. While the Community Centers alternative arguably reflects market demand, clustering mixed land uses requires land acquisition, stormwater master plans and improved transportation connectivity - all potentially costly measures. Much of this improved coordination should take place through routine joint meetings of the St. Lucie and Martin County MPOs. Recommendations on the sizing and location of the future community centers will occur in Phase II of this study, but implementation will require a cooperative effort among local and state agencies. To track trends in land development and the transportation system to measure progress toward achieving the vision, the region needs to prepare an annual State of the System report that maintains the visibility of growth management issues and promotes regional coordination.

COMMUNITY CENTERS VISION STATEMENT

As a result of the public input, technical analysis and policy evaluation completed for this project, the following vision statement has been crafted to guide subsequent activities and communicate the study's key recommendations.

Establish geographically dispersed compact, mixed-use community centers that provide for better jobs-housing balance through complementary land uses in closer proximity to residential areas. The intent of creating such activity centers is to preserve environmentally sensitive areas and agricultural resources, and reduce the number and length of inter-county automobile trips through expanded travel choices for residents and employees. In support of these activity centers, the region will:

- Develop US 1 as a multi-modal transportation corridor through quality redevelopment and new development that features transit-supportive and pedestrian-friendly site design and infrastructure;

- Define the scale and develop design guidelines for mixed-use centers that reflect market demand and local character;
- Invest in public transportation strategies that reduce dependence on automobile travel between activity centers in St. Lucie and Martin Counties by providing accessible and convenient premium transit service linking key origins and destinations;
- Create an integrated network of roadways, greenways and bicycle/pedestrian facilities that improve connectivity and accessibility throughout the region, and
- Monitor land use and transportation trends to track the effectiveness of the Community Centers vision in meeting the area's livability and mobility objectives.

This Regional Land Use Study is just a first step. It outlines a broad framework for regional land use and transportation integration, but much additional work is to be accomplished to transform the vision into practical reality. By providing a regional perspective, this study seeks to guide the local decision-making process for land use and transportation in a way that achieves overall goals for economic opportunity, personal mobility, community character and environmental preservation in the Treasure Coast region.

CHAPTER 1

STUDY OVERVIEW AND INTRODUCTION

CHAPTER 1: STUDY OVERVIEW AND INTRODUCTION

INTRODUCTION

The Regional Land Use Study for Martin and St. Lucie Counties is an effort to evaluate alternative land use and transportation options in order to:

- Provide a more balanced transportation system;
- Reduce the need for major capacity expansions to US 1;
- Encourage new development and redevelopment in targeted areas, and
- Preserve agricultural lands and environmentally sensitive areas.

This chapter provides an overview of the study activities and documents the public involvement program carried out to complement the technical work tasks. The project is focused on a nearly 200-square mile study area (*Figure 1.1*) that extends from the southern end of Fort Pierce in St. Lucie County to south of Port Salerno in Martin County. The western edge of the study area is the existing urban service boundary for both Martin County and St. Lucie County. The Treasure Coast Regional Planning Council is coordinating the study, with agency financial and technical participation from Martin County, St. Lucie County, the cities of Stuart, Port St. Lucie and Fort Pierce, the Florida Department of Transportation and the Florida Department of Community Affairs. Of these agencies, all but the Department of Community Affairs participated in a series of monthly Steering Committee meetings to review interim work products prepared by the consultant, provide policy and technical guidance, and discuss alternative approaches for the study.

The Regional Land Use Study is being conducted in two phases. This Final Report documents activities related to Phase I of the study, which is funded through local and state sources. This phase inventories and assesses existing and future land use patterns, evaluates alternative land use and transportation scenarios, and develops a vision for how growth should be directed in the future to promote travel choices and reduce the need for major roadway capacity improvements. Phase II, which is funded through a federal grant, will start upon the completion of Phase I and will continue through mid-2002. This second phase addresses the steps needed to implement the vision and to prepare a demonstration project within the study area.

Regional Land Use Study

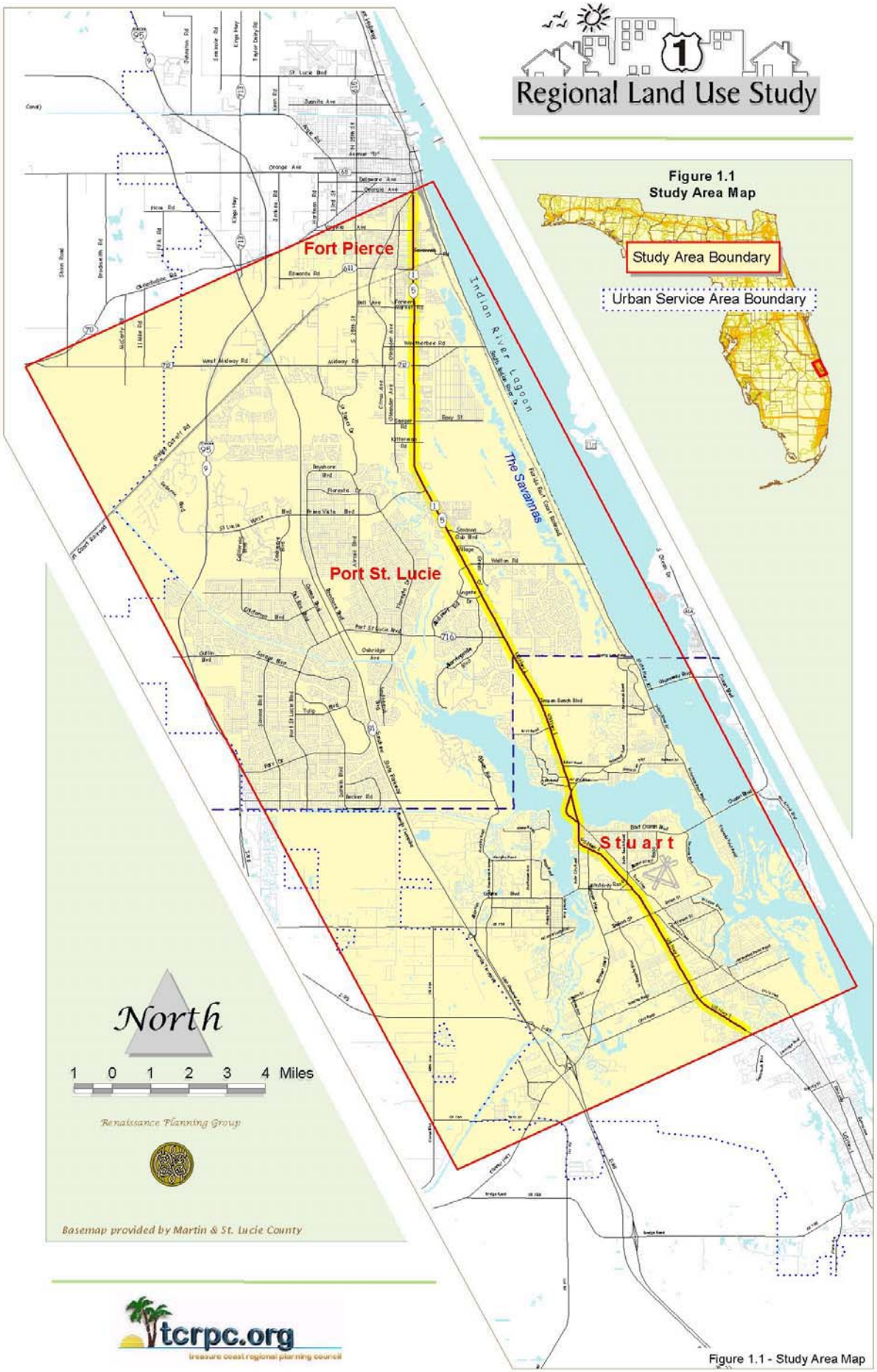

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Figure 1.1 - Study Area Map

The work products of the Regional Land Use Study include:

- A geographic inventory of vacant and redevelopable land;
- An analysis of the long-term costs and benefits of an alternative land use scenario;
- A regional context for targeted growth areas;
- An implementation and monitoring program to measure progress toward the vision;
- Recommended amendments to local government comprehensive plans and MPO long range transportation plans (Phase II), and
- A demonstration project applying the concepts and vision to a site (Phase II).

When Phase II is completed, the work from both phases will be merged into a single plan that clearly articulates the process for meeting the vision for integrated land use-transportation development.

STUDY CONTEXT AND PURPOSE

Through an inventory of conditions and discussions with the community at public workshops and other forums, such as meetings with civic associations, elected officials, and a real estate roundtable discussion group, a number of land use and transportation issues and challenges have been identified for the study area. These challenges should be considered in the context of growth pressures resulting from the area's outstanding natural resources, an increasing array of urban amenities, affordable housing and convenient access to the major urban centers of Orlando and South Florida. The land use and transportation challenges facing the study area include:

- Large areas of platted, undeveloped residential lots in individual ownership, which limits the ability to assemble land for significant development (primarily in Port St. Lucie);
- A sizable imbalance in the location of housing and jobs, resulting in long work trip commutes and economic inequities between the two counties;
- A predominant suburban orientation with relatively few well-defined centers;
- Physical and environmental features that limit roadway connectivity and allow for only a few, increasingly congested, continuous routes serving the area;
- Prevailing market demand from the western portion of the urban services area that results in underutilized and vacant parcels in the older, established commercial core areas, and
- A relative lack of viable alternatives to automobile travel, placing additional pressure on the existing roadway system.

These challenges provide the context for the analysis, findings and recommendations embodied in the Regional Land Use Study. Consistent with the tenets of the Eastward Ho! Initiative in the region, the Regional Land Use Study seeks to provide a quantitative assessment of how alternative development patterns allow for a more balanced transportation system with improved travel choices, reduce the number of inter-county automobile trips and length of trips, provide for a better jobs-housing balance between the two counties, preserve environmentally sensitive areas and agricultural resources, and promote infill development and redevelopment where appropriate. In order to do so, this study addresses the following key questions:

- Can developable land within the existing urban service area boundaries of both counties fully accommodate projected population and employment growth through 2025?
- Can an alternative land use and transportation development scenario eliminate or at least delay the need to construct major roadway capacity expansions along US 1?
- How can US 1 evolve into a true multi-modal corridor that supports expanded travel choices?

Within that context Phase I of the Regional Land Use Study entailed the following steps:

- Establishment of a public involvement program;
- Development of a vacant land and redevelopable land inventory;
- Identification of alternative land use-transportation scenarios;
- Evaluation of the long-term costs and benefits of the alternative scenarios;
- Development of an implementation and monitoring program, and
- Documentation and presentation of study findings and recommendations.

These steps are described in the following chapters:

- Chapter 1: Study Overview and Introduction
- Chapter 2: Vacant and Redevelopable Land Inventory
- Chapter 3: Alternatives Identification and Evaluation
- Chapter 4: Implementation Plan and Monitoring Program

REGIONAL LAND USE STUDY GOALS

Five goals developed through active public participation for the Regional Land Use Study have guided the development and evaluation of alternatives. These goal statements will also be used in the recommended implementation and monitoring program to measure progress toward achieving the vision.

- Goal 1: Create a future land development pattern that is economically vital, sustainable and supportive of expanded travel choices.
- Goal 2: Maximize infill and redevelopment opportunities within existing urbanized areas.
- Goal 3: Develop a balanced transportation system offering multiple routes and travel modes.
- Goal 4: Provide viable alternatives to single-occupant vehicles to include local and regional coordinated networks of transit, pedestrian and bicycle facilities.
- Goal 5: Increase intergovernmental coordination and joint planning for integrated land use and transportation planning.

PUBLIC INVOLVEMENT PROCESS

The Regional Land Use study employed a variety of public participation and outreach efforts involving residents, business owners, real estate developers, transportation providers, community leaders, and interested citizens throughout the entire study area. Ideas and input from the community on important land use and transportation issues have substantially guided the development and evaluation of alternatives and other study activities. These efforts were guided by a Public Involvement Plan (PIP) that was prepared at the outset of the study. Major products of the public involvement efforts for this study are included in *Appendix A*. These include examples of project newsletters, a list of all meetings, and workshops, and other items. Outreach methods that were used during the study include the following:

- Establishing a Plan Information Network (PIN) for distributing information;
- Preparing periodic brochures and newsletters;
- Preparing media briefings and news releases;
- Creating a project website (www.tcrpc.org/landuse/us1corr.htm);
- Conducting two sets of workshops during the study and a display at the Treasure Coast Mall;
- Conducting a visual preference survey;

- Creating a traveling project display;
- Conducting formal presentations to elected officials and civic groups; and
- Forming a real estate roundtable advisory group.

Each method and major outcomes are explained in more detail below. Additionally, monthly meetings were held with the project Steering Committee, which included representatives from the funding partners (with the exception of the Department of Community Affairs) and other study stakeholders. Members included city and county staff within the study area, FDOT-District Four staff, and TCRPC staff.

Plan Information Network (PIN)

A PIN was developed as an ongoing resource of contact information and served as the distribution list for all promotions and notifications of meetings, workshops and presentations for this study. The PIN was developed from lists obtained from Martin County, St. Lucie County and the Treasure Coast Regional Planning Council (TCRPC) from previous public involvement activities undertaken. Citizen advisory committee members on general, technical, and bicycle/pedestrian issues were also included in the PIN. The PIN also included representatives from community groups, homeowners associations, environmental groups, civic associations, educational groups, downtown development groups, transportation disadvantaged groups, builders and business associations. As the study progressed, contacts were added to the PIN list from Councils on Aging, Chambers of Commerce, brochure survey returns, workshop attendees, and other interested citizens.

Project Brochure

A project brochure was developed as a communication tool to outline the goals of the study and inform the public of opportunities to get involved. The study brochure served as an important reference for the public that listed study partners, the study coordinator contact information, a map of the study area and its boundaries, and workshop activities planned during the course of the study. The brochure is included in *Appendix A* of this report. A tear-out survey was included as a return mailer with space to list contact information for the PIN. Brochures

were distributed at all meetings, workshops and public project displays and were mailed to interested persons upon request.

Newsletter

The first newsletter was published in November 2000 to announce the first set of public workshops. This newsletter delineated the major study activities, giving the public a clear outline of the steps in the process, and described the first major task of creating an inventory of vacant and redevelopable land. A second newsletter was prepared at the conclusion of the study to document the major findings and conclusions of Phase I of the study and to provide an overview of Phase II. Copies of both newsletters are included in *Appendix A*.

Media Briefings and News Releases

The consultant assisted with media communications by preparing copy for news releases that were distributed by the TCRPC. The TCRPC project coordinator prepared press releases and discussed study accomplishments and recommendations with the media. Media contacts were included in the PIN, and interviews were also given by the consultant to local media outlets. Several newspaper articles were published reporting workshops activities along with a full article authored by the consultant interviewing local residents and their perceptions of land use and development potential in the Treasure Coast area.

Web Site

A link was created on the TCRPC web site (www.tcrpc.org) to the Regional Land Use Study web page (www.tcrpc.org/landuse/us1corr.htm) providing direct public access regarding the study's progress and findings to date. The site was populated with an events calendar posting workshops and other meeting announcements, summaries of workshops and public meetings, the current study newsletter and study coordinator contact information.

Workshops

A series of public workshops served as a major component of the public involvement process. Workshops were held in November of 2000 and in March of 2001 in convenient

locations in both counties. For both sets of workshops (November and March), duplicate workshops were held in each county for accessibility and convenience. The November workshops provided an opportunity for participants to identify major issues to be considered throughout the study process. The March workshops asked participants to provide their opinions regarding the location, type and intensity of future growth and what transportation improvements would be needed to support that growth concept. Community input from both workshops was instrumental in developing the alternative scenarios for analysis (described in *Chapter 3*). Workshop flyers, example maps, handouts, materials and workshop summaries are included in *Appendix A*.

Mall Workshop (Visual Preference Survey)

Study boards and materials were on display at the Treasure Coast Square Mall for a workshop in December 2000 during the holiday shopping season. A visual preference survey was conducted that presented choices of residential and commercial land uses in urban and suburban settings based on defined community elements. Participants were asked to choose which community element type they preferred for each land use. The purpose of the mall display was to let a broader segment of the population know that the Regional Land Use Study was being conducted, provide an opportunity for input and raise awareness about some of the challenges and opportunities facing the region. Numerous people stopped by the display and examined the maps and other information, but a relatively small number actually completed the exercises.

Traveling Project Display

Another useful tool was the creation of a highly visible large project display, which was rotated among several key locations throughout the study area, such as in libraries, government buildings, and other high visibility locations. The purpose of the display was to illustrate proposed land use and transportation scenarios and provide a means for the public to comment on the options. The display, which was mounted on three 24” x 36” foam-core boards, provided information on the overall study process and steps, proposed land use and transportation alternatives, images of building and street design options and other information about the study.

It also provided information regarding how to become involved in the study and how to join the Plan Information Network. The display was in active use from June through the end of Phase I in November 2001. With the concurrence of the Steering Committee, this display was substituted for one of the three newsletters produced for the project. Elements of the display are reproduced in *Appendix A*.

Formal Presentations

In addition to the workshops and other community outreach activities described above, several formal presentations were made during the course of the study to elected officials (such as the Martin County Board of County Commissioners and the Port St. Lucie City Council), a joint meeting of both MPOs' Technical Advisory Committees, the TCRPC Board, and other entities. A complete list of all presentations is included in *Appendix A*.

Real Estate Roundtable

Although all of the public involvement measures were used effectively throughout the study, one method was particularly helpful to the process. A Real Estate Roundtable advisory group, comprised of business owners, real estate professionals, developers, lenders and other market professionals, was formed and met twice during the course of the study to provide guidance primarily in the formation of alternative development scenarios and in identifying viable strategies to implement the land use vision. The group included about 20 participants and each meeting entailed a lively discussion that provided a qualitative, yet real-world perspective to the study process. The roundtable group provided guidance concerning the location of future redevelopment areas and new activity centers (including undeveloped areas), and the type of development incentives or disincentives that are more likely to influence the private market.

The first roundtable meeting occurred in January 2001 and discussed land development, growth and transportation issues and opportunities facing the region. The second meeting, held in April 2001 discussed the alternative land use scenarios and focused on the strategies and incentives government could implement to encourage private sector and market-based responses to the initiatives. Summaries of these two meetings are included in *Appendix A*.

Public Involvement Summary

The public involvement program was designed to encourage broad-based interest and participation in the study. A variety of methods were employed to achieve this objective. While turnout at workshops was less than desired, other activities, such as the mall display, newsletters and rotating display boards, compensated. Public involvement activities will continue into Phase II of the study; however, it will be incumbent upon the Regional Planning Council and area local governments to sustain interest and provide opportunities for the public to provide input on subsequent study activities and any implementation steps.

CHAPTER 2

VACANT AND REDEVELOPABLE LAND INVENTORY

CHAPTER 2: VACANT AND REDEVELOPABLE LAND INVENTORY

INTRODUCTION

One of the initial tasks of the Regional Land Use Study was to evaluate whether there is sufficient vacant and redevelopable land within the urban service area to accommodate projected population and employment growth. The Martin County and St. Lucie Metropolitan Planning Organizations (MPOs) have projected that study area population will climb to more than 360,000 persons by the year 2025 and employment will reach nearly 125,000. The MPOs' socioeconomic data projections have been used to determine whether or not the urban service area should be expanded and to identify the criteria for evaluating future requests to expand the urban service area. This chapter summarizes the methodology for categorizing vacant and redevelopable land as well as assessing future development potential. Data development, review methods, findings and development potential methodologies are described in detail below.

DATA DEVELOPMENT AND REVIEW

The land inventory involved the identification of vacant lands, environmentally sensitive lands and properties that were considered to be redevelopable within the study area. The starting point for the vacant and redevelopable land inventory was parcel level data and maps. A geographic information system (GIS) software platform was used to efficiently identify vacant, environmentally sensitive and redevelopable land. Vacant land was defined as any property without a principal structure (building, foundation, parking area, trailer, etc.). Environmentally sensitive lands were identified as conservation lands, wetlands, and other sensitive areas. Identifying redevelopable lands was more complex and the methodology for assessing the redevelopment potential is detailed below.

Ultimately, it was determined that there are approximately 48,000 acres of developable vacant land and 9,000 acres of redevelopable land in the study area. As outlined below, it was concluded that, if future land development patterns are clustered consistent with the recommended Community Centers vision, the capacity of vacant and redevelopable land meets or exceeds the 2025 total projected population and employment estimates of the two MPOs.

Such clustering may require the purchase and assembly of parcels in certain areas, and subsequent sale of such land to be developed in this manner. Community support and political will and direction is vital to such an effort. If this is not possible, then community center locations may, in part, need to be located in more western, undeveloped locations.

VACANT LAND INVENTORY

The project team contacted various local government agencies with land use authority in the study area. The availability of geographic information, land use maps and electronic data varied significantly by feature and between agencies. Datasets ranged from highly sophisticated geographically based property appraiser databases and rectified aerial photographs to hard copy maps of existing development patterns. Ultimately, the two counties' Property Appraisers' tax rolls and GIS layers were determined to be the best starting point for creating a base GIS coverage for the entire study area.

Land Use Data

The land inventory involved the aggregation of land use information from the Martin and St. Lucie County property appraisers' offices. The analysis began with property boundary or parcel level maps. The property appraiser databases included Department of Revenue (DOR) land use codes, information on buildings and other structures, land area statistics and property ownership details. DOR land use codes classify land by existing use for tax reporting purposes and various codes are included for types of vacant land including vacant residential, vacant commercial, vacant industrial, vacant agricultural, conservation, submerged lands, rights-of-way and other miscellaneous government reservations. The study team loaded all available property appraiser data for the study area into a GIS software computer application for analysis. GIS applications allow efficient analysis of large geographically specific data sets. The vacant land inventory used parcel level property details, but the final analysis was aggregated and conducted at the traffic analysis zone (TAZ) level.

Martin County's parcel coverage has not been updated in four years, so some parcels were missing data and some records were not associated with a polygon in the GIS layer. For the

properties that were missing land use data, the project team created an overlay with the South Florida Water Management District's (SFWMD) 1988 land use layer.

Vacant Land

Vacant land was identified as those parcels without physical improvements such as buildings, foundations, parking areas or trailers. Unimproved land was identified by examining the property appraisers' improvement codes and the DOR existing land use codes. Property appraisers track the value of improvements made to land and categorize these taxable values separately from land values. Martin County maintains a property group field in its features database. Parcels that were identified with an "L" (meaning land only) in all associated records in the features database were assumed to have no improvement. The DOR land use codes categorize useable versus unusable vacant land based on the state tax reporting requirements. In addition, Martin County's Growth Management Division also provided a vacant land inventory coverage for land with commercial or industrial future land use. There was also considerable input from the project Steering Committee. Visual checks of aerial photos determined whether parcels selected from the above methods were actually vacant.

Environmental Constraints

In addition to the DOR land use codes that classify lands as submerged lands, high recharge areas and conservation lands, the study team used GIS coverages from various agencies to identify wetlands, conservation lands, environmentally sensitive lands and soils with development limitations. GIS coverages used to identify environmental lands included: (1) the U.S. Fish and Wildlife's National Wetlands Inventory (NWI); (2) the Florida Department of Environmental Protection (DEP) Conservation Lands Inventory; (3) the St. Lucie County Environmentally Sensitive Lands Database; (4) the Martin County Conservation and Recreation Areas Coverage; (5) the South Florida Water Management District (SFWMD) Land Use and Land Coverage; and (6) United States Department of Agriculture (USDA) Natural Resources Conservation Service Hydric Soils Coverage. For the wetlands coverages, a conservation buffer of 25 feet was added to all polygons as a proxy for an uplands buffer. The USDA Hydric Soils

coverage was determined to be too restrictive because an overly high percentage of platted subdivisions were identified as being located on restricted soils. Ultimately, it was determined that there were 18,530 acres of conservation lands (including conserved recreation areas) and 777 acres of submerged parcels located within the project study area.

Additionally, a policy assessment of various environmental regulations impacting development potential was undertaken for all agencies having environmental jurisdiction within the study area. Agencies analyzed include Martin County, St. Lucie County, the Water Management Districts, the Florida Department of Environmental Protection and the Florida Fish and Wildlife Conservation Commission. The results of this policy assessment are included in *Appendix B*.

Future Land Use

The project team selected the best data sources for electronically identifying and categorizing vacant land by future land use designation. Initially, the team considered using future land use coverages from the two counties. However, it was discovered that the planning departments do not have suitable electronic land use data for the cities. The project team obtained the planning department future land use coverages for both counties as well as the cities of Port St Lucie and Stuart. The following agencies indicated that they did not have GIS layers available: Fort Pierce, St. Lucie Village, Ocean Breeze Park, Town of Seawall's Point and the Treasure Coast Regional Planning Council.

Based on the information assembled from the various sources, a map of the study area was created depicting environmentally sensitive land and vacant land by future land use category. (*Figure 2.1*) shows this map, which was used to analyze the amount of vacant land in the study area relative to projected population and employment growth through 2025.

ASSESS LAND AVAILABILITY

Once all of the above data was compiled within a relational GIS platform, the project team used a two-step approach to assessing development potential. The first step identified vacant parcels with development potential and eliminated those with little or no potential due to

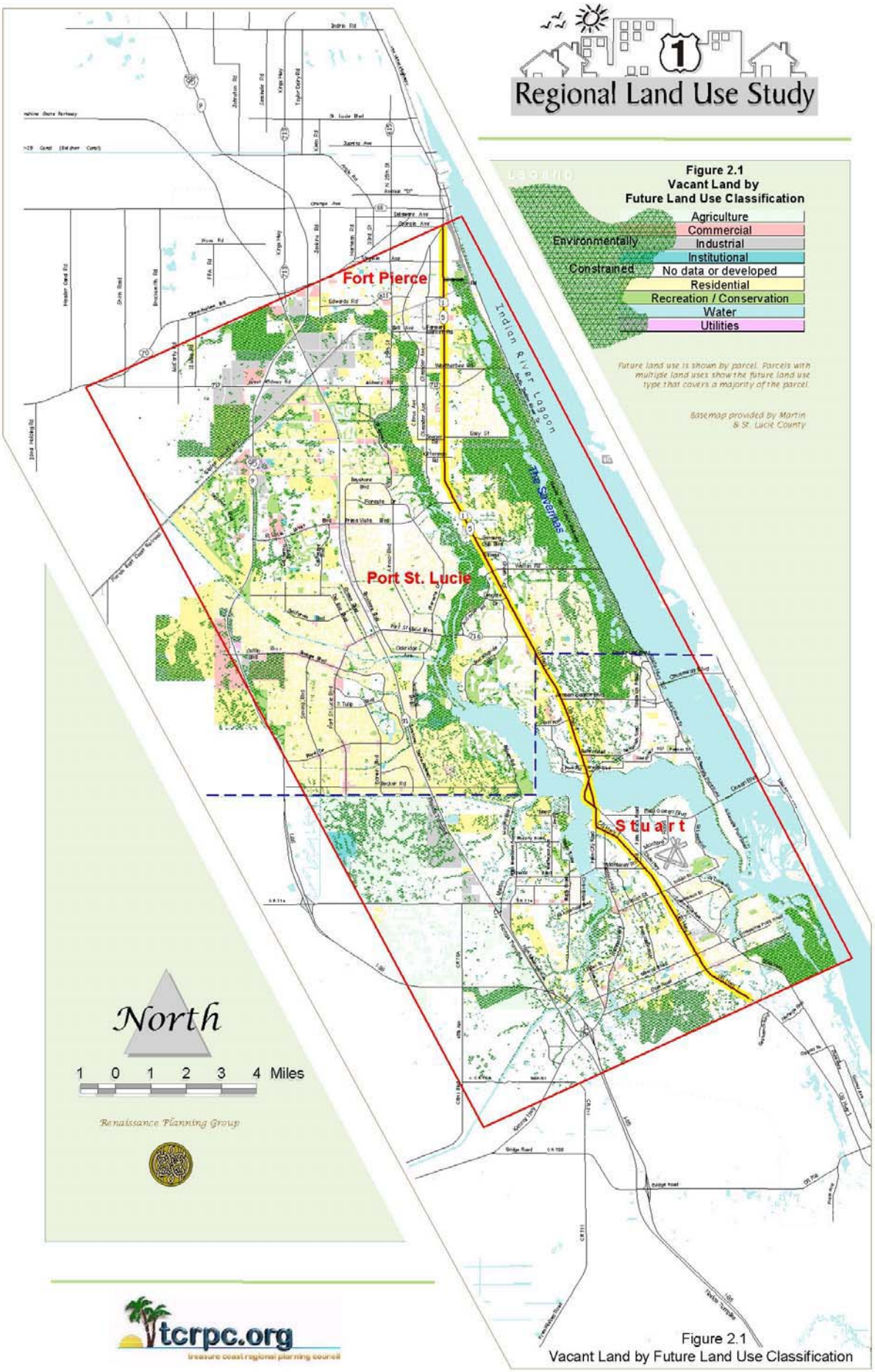


Figure 2.1
Vacant Land by Future Land Use Classification

relative size, environmental constraints or future land use designation as conservation. For example, large vacant tracts of land already zoned commercial without environmental constraints would have a good development potential and were retained within the database. The second step identified the development potential (or capacity) of the vacant land using different assumptions regarding development patterns and urban design.

Developable Vacant Land

As depicted in *Table 2.1*, it was determined that there are roughly 48,000 acres of developable land in the study area. This number represents about 70 percent of the total land area in the study area. Much of the vacant land in the study area is classified as agricultural, residential or conservation.

Table 2.1

Vacant Acreage Summary for Martin and St. Lucie Counties

Future Land Use Category	*St. Lucie County*	*Percent*	*Martin County*	*Percent*	*Total*	*Developable (1)*
Agricultural	123.0	*0.3%*	9,580.4	*41.8%*	9,703.4	9,703.4
Residential (Single & Multi)	23,366.9	*51.2%*	6,047.0	*26.4%*	29,413.9	29,413.9
Commercial	3,418.0	*7.5%*	667.6	*2.9%*	4,085.6	4,085.6
Industrial	2,887.3	*6.3%*	1,264.6	*5.5%*	4,151.9	4,151.9
Institutional	215.7	*0.5%*	635.8	*2.8%*	851.4	851.4
Utilities	361.5	*0.8%*	-	*0.0%*	361.5	
Recreation/Conservation	14,774.9	*32.4%*	3,754.3	*16.4%*	18,529.2	
Water Bodies	316.8	*0.7%*	459.9	*2.0%*	776.8	
Other	129.4	*0.3%*	0.1	*0.0%*	129.4	
No Data Provided	0.9	*0.0%*	506.8	*2.2%*	507.7	
Totals	*45,594.4*	*100.0%*	*22,916.4*	*100.0%*	*68,510.7*	*48,206.2*
Developable (1)	*30,010.8*	*65.8%*	*18,195.4*	*79.4%*	*48,206.2*	*70.4%*

(1) Includes agricultural, residential, commercial, industrial, and institutional categories.

Development Potential

Once the total number of vacant acres was categorized by land use designation, the study team projected the development potential of two possible scenarios. This was done using unique "community elements" for each type of area (rural, suburban and urban) and electronically describing the development character for each element (low density residential, commercial,

public institution, et cetera). Each community element reflects the development potential within a circle having a quarter mile diameter (or an area of about 31.7 acres).

The study team also created new "enhanced" elements that are not specifically urban, suburban, or rural in character. Rather, these "enhanced" areas assume clustered, mixed-use development patterns where buildings are located close to the street, close to one another and development is balanced between residential and non-residential uses. The details of the community elements and the model used to assign the elements are described in further detail in *Chapter 3*.

Development potential was evaluated using two types of development patterns: "suburban" and "enhanced." Future development potential for the available and suitable vacant land in the study area was estimated by multiplying the number of residential units, amount of building area of non-residential buildings, developed land, parking, infrastructure and other development characteristics associated with suburban or enhanced community elements. Ratios of persons per dwelling unit and employees per non-residential square feet were used to determine the population and employment potential. *Tables 2.2 and 2.3* include the community element assignments and illustrate the projected land carrying capacity for each scenario.

The development units in *Tables 2.2* and *2.3* are equal to the total available acres (from *Table 3-1*) divided by the area in each community element (31.7 acres). The CEM column in the tables reflects the assumed community element type for each land use category. The inventory for each element includes, among other characteristics, an estimate of the total population and

Table 2.2

	Suburban Estimate of Vacant Land Carrying Capacity				
	Available Acres	*Devt Units*	*Community Element Type*	*Population*	*Employment*
Agricultural	9,703.4	306.3	Sub. Res. Low Density	21,134.3	2,756.6
Residential	29,413.9	928.5	Sub. Res. Med. Density	111,416.2	22,561.8
Commercial	4,085.6	129.0	Sub. Commercial	3,520.7	24,954.7
Industrial	4,151.9	131.1	Sub. Industrial	1,808.6	10,615.7
Institutional	851.4	26.9	Sub. Public Institution	1,354.6	766.0
Recr/Cons	-	-	Sub. Public Institution	-	-
Other	-	-	Sub. Res. Low Density	-	-
No Data	-	-	Sub. Res. Low Density	-	-
Totals	*48,206.2*	*1,521.7*		*139,234.3*	*61,654.7*

Table 2.3

	Enhanced Estimate of Vacant Land Carrying Capacity				
	Available Acres	*Devt Units*	*Community Element Type*	*Population*	*Employment*
Agricultural	9,703.4	306.3	Rural Ag./Forest	845.4	1,072.0
Residential	29,413.9	928.5	Enhanced Mixed Res.	296,645.6	80,776.7
Commercial	4,085.6	129.0	Enhanced Mixed Use	19,086.8	35,723.2
Industrial	4,151.9	131.1	Sub. Industrial	1,808.6	10,615.7
Institutional	851.4	26.9	Urban Pub. Institutional	1,841.0	3,708.9
Recr/Cons	-	-	Sub. Conservation Area	-	-
Other	-	-	Coastal/Conservation	-	-
No Data	-	-	Coastal/Conservation	-	-
Totals	*48,206.2*	*1,521.7*		*320,227.3*	*131,896.5*

employment within the 31.7-acre community element area. The total population and employment in *Tables 2.2* and *2.3* equal the development units multiplied by the population and employment totals for the assumed element type. For example, the estimated population for the suburban residential low-density (SRL) community element is 69. The population potential for vacant agricultural land, which is assumed to develop as a SRL type community, is equal to the development units for agricultural land (306.3) times the population potential for the SRL element (69), or 21,135 people.

Assuming development continues to be predominately suburban in character, the available vacant land in the study area (around 48,000 acres) will accommodate almost 140,000 additional people and slightly more than 60,000 employees (*Table 2.2*). Assuming development patterns are more clustered and mixed, as reflected in the enhanced community elements, vacant land in the study area can accommodate over 300,000 people and over 130,000 employees (*Table 2.3*). The development potential of enhanced community elements is more than two times that of the suburban elements.

The current study area population is around 190,000. According to forecasts by the University of Florida's Bureau of Economic and Business Research (BEBR), the study area's population will grow to around 360,000 by the year 2025, an increase of 170,000 people. Using current ratios of population to employment, the number of employees in the study area will increase from 60,000 currently to around 125,000 by 2025, an increase of 65,000 employees.

If current suburban development patterns continue, the vacant land analysis indicates there will not be enough land within the urban service boundary to accommodate the anticipated

growth over the next 25 years. The capacity of 140,000 people and 60,000 jobs is not enough for the anticipated increase of 170,000 people and 65,000 jobs. However, if development is focused into enhanced community types, there will be much more than enough land for the anticipated growth (population capacity of 400,000 and employment capacity of 140,000).

Redevelopment Potential

In addition to evaluating the development potential of vacant land, the study team also completed an inventory of redevelopable land located within the study area. Redevelopable land is defined as property that is suitable for:

- Infill development - includes parcels that are typically too small to be picked up by a vacant land inventory or include relatively small principal structures that could easily be reused, such as parking lots or foundations.
- Redevelopment - involves a wholesale reuse and reconstruction of a potential development site. Typically, land that has a high potential for redevelopment is currently underutilized or undervalued compared to surrounding properties that are similarly situated.

There are also a number of independent factors that represent obstacles to redevelopment, including the number of property owners, size of a parcel, relative cost of existing improvements and the value of continuing improvements to maintain a property. In order to assess all of these factors simultaneously, the study team created and applied a set of weighted measures to assess the property appraiser's parcel databases at the Traffic Analysis Zone (TAZ) level.

Redevelopment Criteria

This analysis identified parcels that could be targeted for "infill development" and "redevelopment." Infill development could occur where the local development patterns include vacant tracts surrounded by relatively high intensity development. Redevelopment could be encouraged in areas where property values are relatively low, vacancy rates are increasing or where properties may be characterized as "under-utilized." These areas may be more suited to a higher use if market conditions and local development regulations change.

Based upon the project team's assessment of available GIS data, the characteristics presented in *Table 2.4* were given a weighted score to create an index rating of high, medium or low development potential within the study area based on the variables in the table.

Some of the evaluation variables described below were calculated by aggregating property appraiser data to the TAZ level and comparing by acreage. The variables used were:

- Median year built per acre,
- Number of parcels per acre,
- Median parcel size by TAZ,
- Number of site improvements per acre,
- Assessed value as compared to study area average,
- Number of owners per acre, and
- Parcels with high intensity future land use designations and less intense existing uses (DOR use code).

Evaluation measures determining the availability of water, sewer and stormwater facilities were included in the methodology based on availability of GIS layers. Once the project team assembled and reviewed all of the available data, the individual land features were assigned a weighted score as described in *Table 2.4*.

Table 2.4: Redevelopment Potential Framework

Land Feature Variable:	Analytical Assumption:	Variable	High	Medium	Low
Parcel Size	Parcels exceeding 20 acres generally have high redevelopment potential.	largest parcel in TAZ	20 acres	10 acres	2 acres
Parcel Size	Parcels exceeding 20 acres generally have high redevelopment potential.	average parcel size in TAZ	20 acres	10 acres	2 acres
Proportion of vacant land	It is easier to attract infill development on vacant parcels. Redevelopment of existing properties may also be encouraged when adjacent parcels are vacant.	avg of vacant AGR, RES, COM, IND acres	Vacant acres exceeds 100 per TAZ	Vacant acres exceeds 75 per TAZ	Vacant acres exceeds 30 per TAZ
Platted parcel	Developers prefer to invest in infill development when the development potential is quantified, particularly subdivided parcels with consistent zoning and FLU.	Platted parcels without improvements	Platted parcels exceed 100 parcels per TAZ	Platted parcels exceed 50 parcels per TAZ	Fewer than 25 platted parcels per TAZ
Located within designated redevelopment areas (CRA's and downtowns)	Parcels already identified by local gov't. for redevelopment or new development (in-fill).	Identify existing CRA's & map downtown areas	Inside identified areas	n/a	Outside identified areas
Environmental constraints	Development should be directed away from parcels that are substantially restricted by environmental constraints.	Percent of TAZ acreage that is constrained?	LT 25%	26-50%	GT 50%
Assessed value of property per acre	Small area property value trends may be identified when median assessed values are compared to countywide and study area-wide values. Lower assessed values may indicate redevelopment potential.	Compare average TAZ parcel value to median Study Area parcel value (by County)	TAZ average values between 80 - 115% of study area median	TAZ average values of 60 - 80% and 116 - 130% of study area median	TAZ average values of 0 - 59% and GT 131% of study area median
Development "hot spots"	Through discussions with local realtors/developers/local gov't. staff, known development "hot spots" will be depicted for analysis purposes.	Map "hot spots" and identify proximate properties	within 1/4 mile	within 1/2 mile	GT 1/2 mile
Median structure age	Areas with a high concentration of older structures may have a significant redevelopment potential. Some structure may be too costly to redevelop due to changing construction standards or useful life of structure	Average Year Built by TAZ	1970 - 1989	1950 - 1969 and 1990 - 1995	older than 1950
Few improvements per acre	Areas with very few improvements per acre (principal buildings, storage buildings, signs, garages, fences, and pools) tend to reflect potential for redevelopment. Few improvements may indicate a high ratio of leased parcels, declining property values, lack of property owner maintenance and poor neighborhood image.	Average number of improvement features per parcel			
Few owners per acre	An area with fewer land owners is generally easier for redevelopment. This ratio also indicates where smaller tracts may be assembled into larger parcels.	Number of owners per acre of land	LT 0.3	LT 0.7	GT 1.5
Future Land Use compared to Zoning/Existing Land Use	Properties that are under-utilized or under-zoned create the potential for redevelopment based upon FLU designation.	Percent of FLU to DOR code matches by TAZ	GT 95%	GT 75%	LT 50%
Adequate Infrastructure	Redevelopment potential is increased when water, sewer, and stormwater utilities are readily available to a site.	In or out of the uban service area	In	n/a	Out

The analysis also categorized each potentially developable parcel into the following classes based on DOR codes:

- Agricultural;
- Commercial (mixed use, office, retail and service);
- Government/institutional;

- Public recreation;
- Industrial;
- Education;
- Miscellaneous (ROW and utilities), and
- Residential (single-family and multi-family).

The team was able to maintain future land use (FLU) overlays with the parcel layer throughout the analysis. Future development potential was restricted when a parcel was impacted by environmental and wetlands restrictions.

The analytical tests aggregated parcels at the TAZ level to efficiently sort vacant and redevelopable land included in the inventory according to its potential. Large vacant parcels without environmental constraints were identified using the property appraiser's database, parcel size and considering whether the parcel is part of an approved DRI. These tests selected vacant developable land not already included within a DRI and without development constraints. Other tests identified large parcels with high intensity future land use designations and less intense existing uses and less intense zoning. It was assumed that underutilized land indicates a high potential for redevelopment.

Within a TAZ, the average assessed value, average parcel size, common ownerships and average number of improvement records were compared to the study area-wide averages. The project team determined that areas with few owners, large tracts, low assessed values and few improvements were ripe for redevelopment efforts. The availability of existing or proposed infrastructure to serve potentially developable land was also examined.

Redevelopable Land

Applying the redevelopment criteria in the study area resulted in about 8,760 acres of redevelopable land. Using the same overall suburban development intensities applied to the vacant land, the redevelopable land has a population capacity of 25,300 and an employment capacity of 11,200. The population capacity increases to 58,200 and the employment capacity to 24,000 assuming enhanced development patterns.

The total population capacity for the vacant acreage (48,000) and redevelopment acreage (8,760), assuming a suburban development pattern, is approximately 164,500, which is still not enough to accommodate the projected population of 170,000. The total carrying capacity for employment, assuming a suburban development pattern, is 72,800, which is slightly more than the anticipated employment of 65,000.

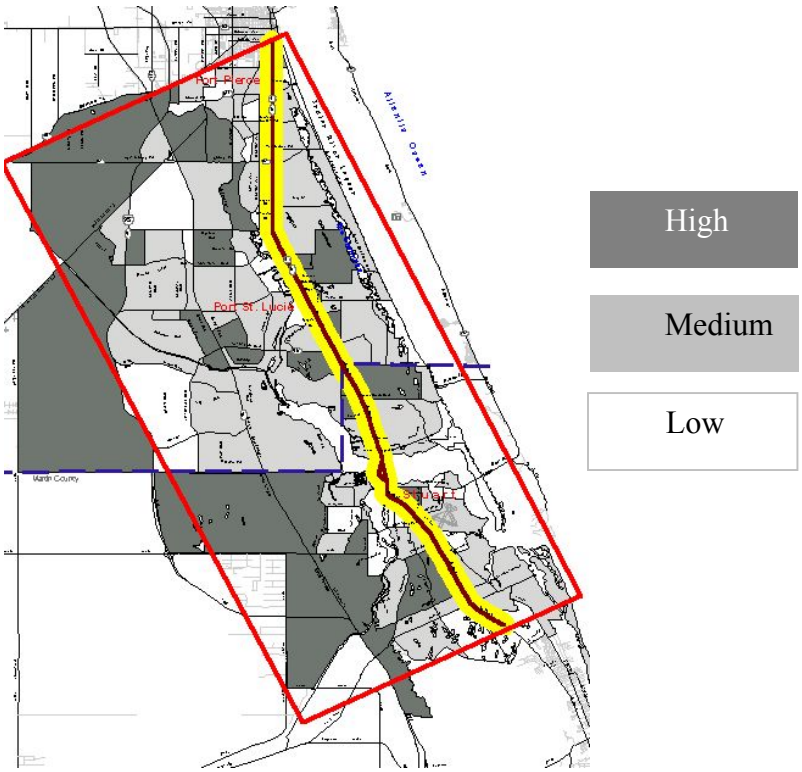
DEVELOPMENT POTENTIAL SUMMARY

The analysis of vacant and redevelopable land indicates that if the suburban development trends continue and the growth rates forecast by the BEBR occur as expected, the area will build out within the next 25 years unless areas redevelop. Even with redevelopment, the study area will be very close to a built-out condition. A compact development pattern, as envisioned with the enhanced community elements, provides more than adequate carrying capacity over the next 25 years.

The analysis also indicated those areas in the county where development can be expected over the next 25 years (*Figure 2.2*). This information is used in the land use modeling described in *Chapter 3*.

Figure 2.2

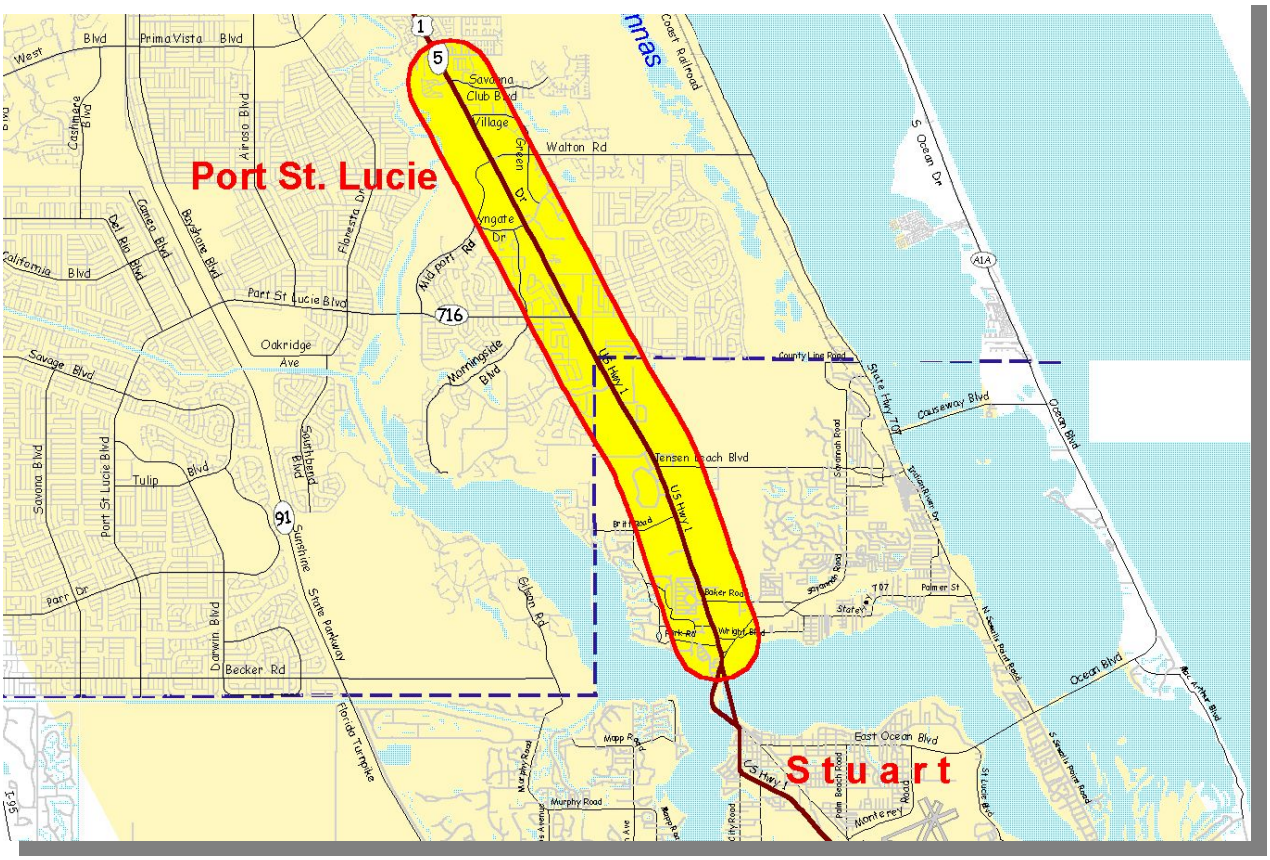
Development Potential



US 1 MARKET ANALYSIS

One important task of the regional land use study was to conduct a market feasibility assessment for selected properties within the US 1 corridor (*Figure 2.3*). The purpose of this analysis was to determine the feasibility of market-based policies to implement the recommended land use scenario. Market listings were obtained for the defined segment of US 1 in both counties and tracked throughout the course of the study. Items assessed included appraised value, market listings, and other factors. The results of this analysis are included in *Appendix C*.

Figure 2.3
US 1 Market Analysis Study Area



CHAPTER 3

ALTERNATIVES IDENTIFICATION AND EVALUATION

CHAPTER 3: ALTERNATIVES IDENTIFICATION AND EVALUATION

INTRODUCTION

This chapter documents the development and evaluation of two alternative development scenarios for the study area, each having a land use and transportation component. The alternative scenarios are a US 1-focused redevelopment/infill scenario and a multi-nodal development scenario. The development of each alternative is based on the technical tasks, public input, and Steering Committee comments as documented in this report. Both alternatives are compared with an existing plus committed (base) scenario for evaluation purposes. The horizon year for the study is 2025, consistent with the adopted Long Range Transportation Plans of the two Metropolitan Planning Organizations (MPOs) in the study area. Even with a 25-year time frame, it should be recognized that development patterns may take a generation or more to change in a substantial way. The remainder of this chapter describes the development of the land use and transportation components of each alternative, the costs and benefits evaluation of the alternatives, and recommendation of the preferred alternative. The recommended alternative forms the basis of an implementation plan.

ALTERNATIVES DESCRIPTION

The primary task of the regional land use study is to identify, evaluate and recommend a development scenario that strategically supports local land use and economic objectives and supports a more balanced transportation system. Based primarily on the goals and objectives of both St. Lucie and Martin Counties and on public and stakeholder outreach, two distinct alternatives were developed for detailed analysis and evaluation.

The first alternative focuses future growth and transportation investments along the US 1 corridor in the study area while de-emphasizing current trends toward westward development (*Figure 3.1*). The premise of this alternative, known as the US 1 alternative, is clustering future development (and redevelopment) along US 1 in a series of mixed-use activity centers. These activity centers have a pedestrian orientation, making transit a viable travel option. The increase in walking, biking and transit trips may reduce auto travel enough to reduce or eliminate the need for major roadway improvements, such as flyover ramps or interchanges, along US 1.

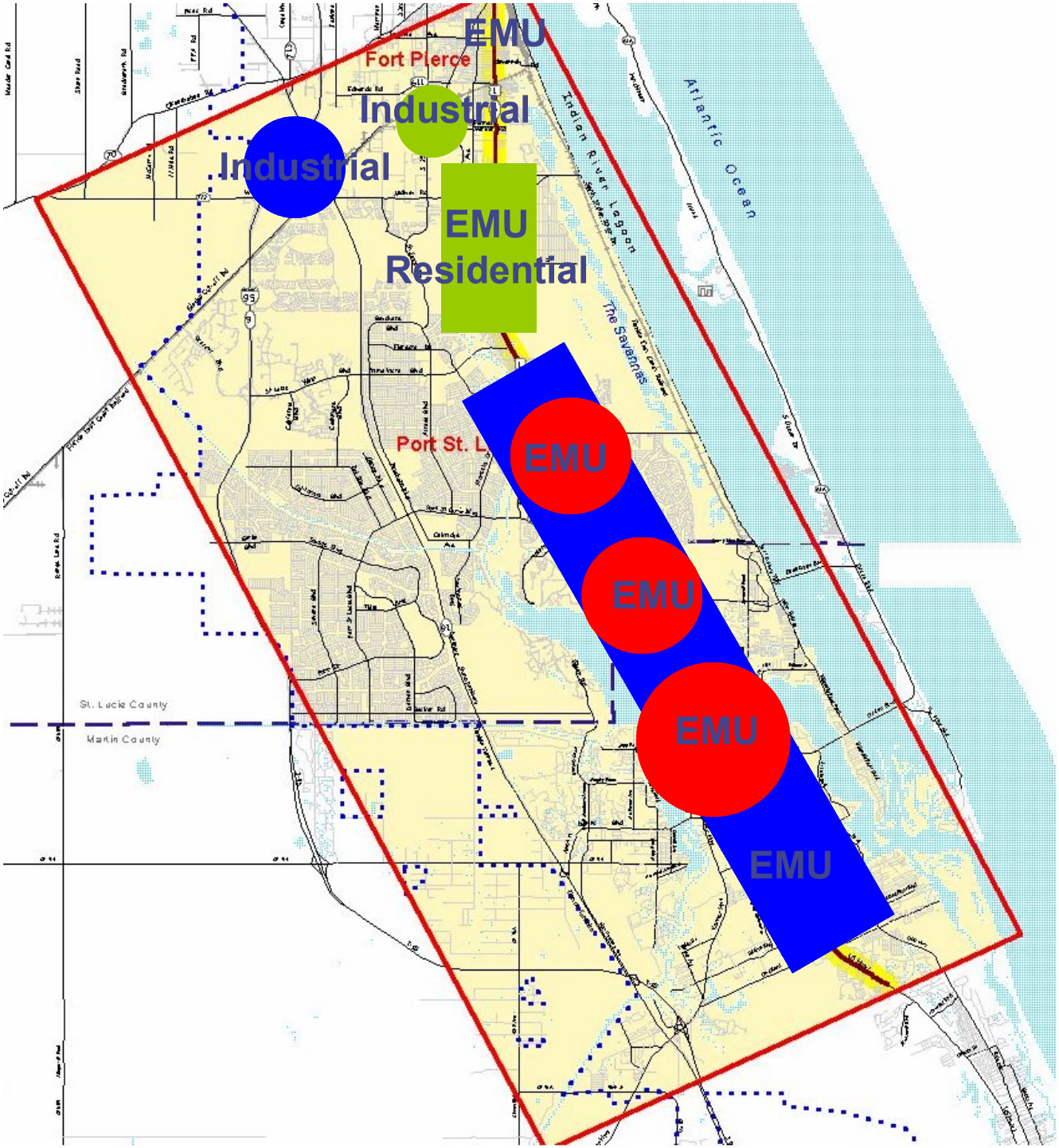


Figure 3.1
US1 Corridor Development Alternative

Primary

Secondary

Tertiary

EMU = Enhanced Mixed Use

The second alternative, known as the *Nodal* or *Community Centers* alternative, clusters future growth within distinct nodes located at major intersections in the study area (*Figure 3.2*). While still treating US 1 as an important multimodal corridor, this alternative redirects much of the current westward growth into mixed-use development clusters. Transportation investments for this alternative emphasize connections between the development nodes and US 1. The land use and transportation components of both alternatives are discussed in greater detail below.

COMMUNITY ELEMENTS MODEL

The community elements model relies on prototypical community designs (community elements) to create study area land development patterns. Each community element is defined by a graphic illustration of urban design features (such as street, parking and building layouts) within a quarter-mile diameter area. Each is also defined by an inventory of land use, infrastructure, socioeconomic and trip generation characteristics, such as building floor area ratios, street dimensions, persons per dwelling unit and trips per employee.

The first step in the modeling process is creating the design diagrams and inventories for the existing community elements in the study area. Once defined, existing community elements are assigned to sub-areas in the study area. The model calculates the development potential for each subarea by multiplying its net developable acreage with the inventory information of the assigned community element. It calculates study area totals automatically as community elements are assigned to subareas. The model is calibrated by comparing the totals estimated from the community element inventories with actual conditions. Once calibrated, the model is ready to develop land use alternatives by modifying the community element assignments to subareas.

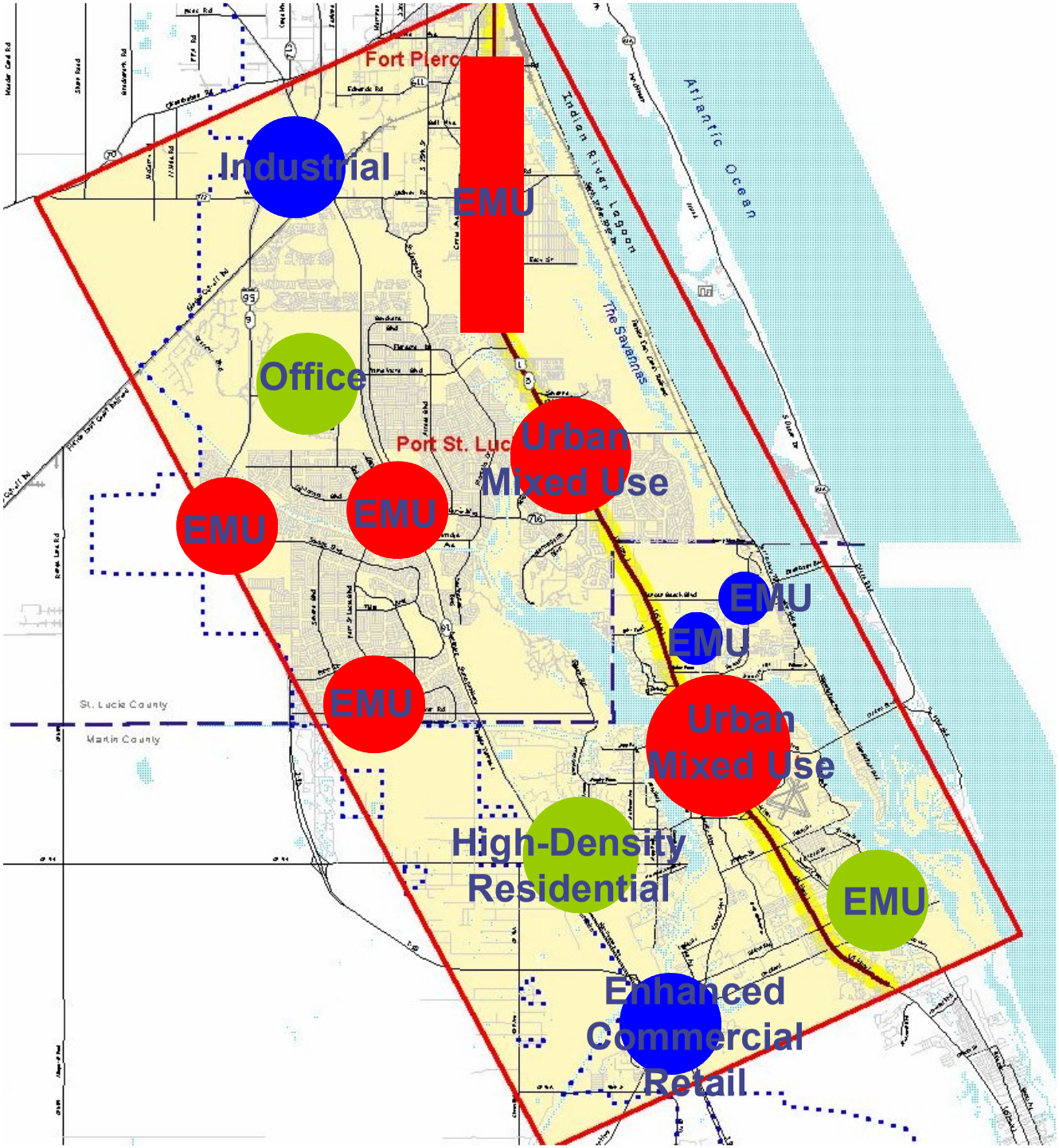


Figure 3.2
Recommended Community Centers Development Alternative

Primary

Secondary

Tertiary

EMU = Enhanced Mixed Use

Table 3.1
Existing and Enhanced Community Elements

Description	Code
Urban Residential	URS
Suburban Residential Condo	SRC
Urban Mixed-use	UMX
Urban College Campus	UCC
Urban Public Institutional	UPI
Urban Parks/Conservation	UPK
Suburban Res. High Density	SRH
Suburban Res. Mod. Density	SRM
Suburban Res. Low Density	SRL
Suburban Mixed-use	SMX
Suburban Commercial	SCM
Suburban Office	SOF
Suburban Industrial	SIN
Suburban Public Institution	SPI
Rural Res. Mod. Density	RRM
Rural Res. Low Density	RRL
Rural Small Town	RST
Rural Village	RVL
Rural Mixed-use	RMX
Rural Agricultural/Forestal	RAF
Sub. Res. Low Density Waterfront	SRW
Coastal/Conservation	CC
Beach Condo	BCR
Suburban Conservation Area	SCA
Enhanced Commercial Retail	ECR
Enhanced Mixed Use	EMX
Enhanced Mixed Residential	EXR
Vacant/ Underdeveloped	VUD

For this study, aerial photographs, existing land use plans and a field visit of the study area were used to identify the existing community elements (*Table 3.1*). Inventories were created for each element using the aerial photographs (urban design sketches were not prepared). Existing elements were assigned to traffic analysis zones from the Treasure Coast Regional Planning Model (TCRPM-II). The community elements model was calibrated using available land use and socioeconomic information, and required adjustments to both the element inventories and the initial TAZ assignments. The calibration process eventually yielded estimates that are within five percent of actual conditions for nearly all variables (*Table 3.2*).

Enhanced versions of existing elements can be created to reflect urban design improvements, such as reorienting streets and buildings to make a community more walkable or transit friendly. In contrast to a typical suburban-style development that includes a cluster of storefronts and drive-through buildings separated by a large parking lot, enhanced community elements (known as mixed-use town centers) should contain the following characteristics:

- A mix of uses including residential, retail and office in close proximity;
- An interconnected local street system consisting of multiple streets within a quarter-mile area;
- Use of on-street parking and/or common (shared) parking areas to encourage building proximity;

- Sidewalks on all streets and well-defined pedestrian crossings;
- Infrastructure and access to public transportation;
- Minimal setbacks between buildings and the street or between buildings; and
- Public open space that is usable rather than limited to retention areas.

Within this context, enhanced uses are meant to comprise various building and street features that, when included as a pattern, encourage highly accessible places that emphasize pedestrian activity and comfort.

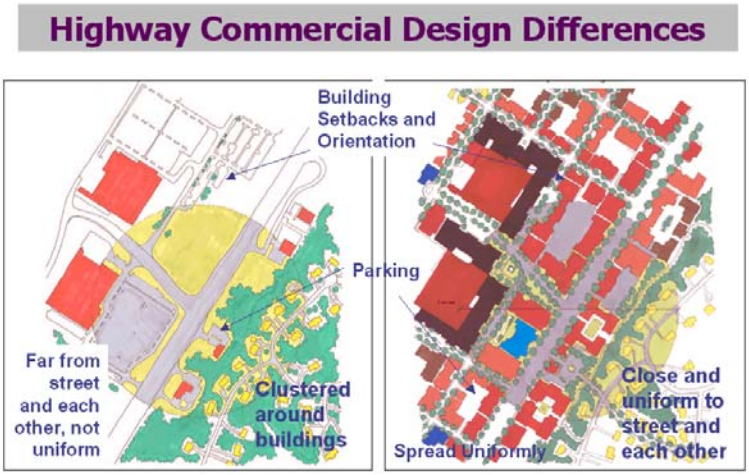
Enhanced versions of the existing community elements were developed based on the goals and objectives in the Martin and St. Lucie County Comprehensive Plans and on public input from a mall display of existing elements (*Table 3.1*). The enhancements increased the mix and proximities of land uses within the community element area and increased the connectivity of internal streets, thereby reflecting a much more walkable and transit oriented design. *Figure 3.3* illustrates the differences between several of the existing and enhanced community elements.

Table 3.2
Community Elements Model Calibration Results

description	*code*	**Existing**	**%**	**Base**	**%**
Single family	SF	24,044	17%	41,934	29%
Multifamily	MF	2,180	2%	2,110	1%
Offices	OFC	372	0%	923	1%
Streets	ROW	24,740	17%	21,945	15%
Cultural / Civic	CULT	814	1%	3,007	2%
Gov't / Institutional	INST	5,288	4%	2,715	2%
Industrial	IND	1,141	1%	919	1%
Parking	PRKing	-	0%	-	0%
Commercial retail	COM	5,494	4%	3,494	2%
Public open	PuOPEN	1,237	1%	5,877	4%
Parks/playfields	PARK	127	0%	2,745	2%
Total Urban	*Urban*	*65,437*	*45%*	*85,667*	*59%*
Developable Vacant	VAC	42,315	29%	-	0%
Agricultural / Forest	AGR	36,863	25%	58,949	41%
Total Land	*Total*	*144,615*	*100%*	*144,615*	*100%*
Unuseable land		2,758		2,758	2%
Total Land	*Total*	*147,373*		*147,373*	
REGIONAL EMPLOYMENT					% Exist
Total	Emp	59,677		73,761	24%
Retail	Retail	21,816		21,402	-2%
REGIONAL POPULATION					
Dwelling Units	DUs	93,714		97,269	4%
Population	Pop	189,396		200,607	6%
School Enrollment	School	34,988		37,058	6%
REGIONAL RATIOS					
Dwellings per Acre		3.57		2.21	-38%
Emp. Per Acre		4.55		6.67	47%
Pct. Developed		44%		53%	20%

Figure 3.3

Existing and Enhanced Community Elements



LAND USE COMPONENT

The calibrated community elements model was used to add specificity to the US 1 and Nodal (Community Centers) development concepts illustrated in *Figures 3.1 and 3.2*. To ensure valid comparisons, the community elements model used the same population control total as that reflected in both MPOs' 2025 socioeconomic data. The assignments of existing elements in the community elements were modified to create the US 1 and the Nodal scenarios that both reflect the concept behind each alternative (described in the previous section) and match the population control total. Enhanced elements are used for each. *Tables 3.3 and 3.4* present the summary statistics for each scenario.

Accounting for Walking/Bicycling Trips

The community elements model estimates the trip productions and attractions used in the trip distribution module of the TCRPM-II. The trip generation component of the community elements model adjusts trip productions and attractions based on the pedestrian orientation of each community element as determined by the research of Reid Ewing and Robert Cervero.[1] Their research finds that up to 25 percent of all trips will shift from autos to walking/bicycling in compact, walkable communities that provide services (such as retail) within close proximity to residential areas.

For this study, the initial trip generation rates used in the community elements model replicated the rates in the TCRPM-II. The rates were then adjusted to account for the influence of community design on trip making. The adjustment required two steps. First, because the trip generation module of the TCRPM-II estimates total person trips minus walking/bicycle trips, the TCRPM-II rates were increased to add in the small percentage of walking and bicycle trips made in a typical low-density suburban environment that reflects most of the study area. The resulting totals were then factored down depending on the community element and the trip purpose. The adjustment factors are shown in *Table 3.5*, while *Table 3.6* compares the total trip productions and attractions estimated by the TCRPC-II for the base scenario and the community elements model for the Community Centers (Nodal) scenario.

[1] Ewing, Reid and Robert Cervero, "Travel and the Built Environment - Synthesis." Paper prepared for Transportation Research Board Conference, January 2001.

Table 3.3

US 1 Alternative Summary Statistics

Description	Code	Base	US 1 Alt.		Description	Code	Existing	Percent	Base	Percent	US 1 Alt.	Percent
Status Quo	SQ	0.0%	0.0%		Single family	SF	24,044	17%	41,934	29%	48,525	33%
Urban Residential	URS	0.0%	0.0%		Multifamily	MF	2,180	2%	2,110	1%	4,953	3%
Suburban Residential Condo	SRC	0.0%	0.0%		Offices	OFC	372	0%	923	1%	1,088	1%
Urban Mixed-use	UMX	1.1%	1.1%		Streets	ROW	24,740	17%	21,945	15%	22,151	15%
Urban College Campus	UCC	0.0%	0.0%		Cultural / Civic	CULT	814	1%	3,007	2%	3,613	2%
Urban Public Institutional	UPI	0.0%	0.0%		Gov't / Institutional	INST	5,288	4%	2,715	2%	2,719	2%
Urban Parks/Conservation	UPK	0.0%	0.0%		Industrial	IND	1,141	1%	919	1%	2,067	1%
Suburban Res. High Density	SRH	0.1%	1.4%		Parking	PRKing	0	0%	0	0%	944	1%
Suburban Res. Mod. Density	SRM	2.9%	1.2%		Commercial retail	COM	5,494	4%	3,494	2%	4,982	3%
Suburban Res. Low Density	SRL	33.2%	35.5%		Public open	PuOPEN	1,237	1%	5,877	4%	6,071	4%
Suburban Mixed-use	SMX	3.8%	1.7%		Parks/playfields	PARK	127	0%	2,745	2%	3,206	2%
Suburban Commercial	SCM	0.2%	0.1%		Total Urban	Urban	65,437	45%	85,667	59%	100,320	69%
Suburban Office	SOF	0.0%	0.0%		Developable Vacant	VAC	42,315	29%	0	0%	0	0%
Suburban Industrial	SIN	0.0%	1.6%		Agricultural / Forest	AGR	36,863	25%	58,949	41%	45,275	31%
Suburban Public Institution	SPI	1.0%	1.6%		Total Land	Total	144,615	100%	144,615	100%	145,595	100%
Rural Res. Mod. Density	RRM	0.1%	0.8%		Unuseable land		2,758		2,758	2%	2,758	2%
Rural Res. Low Density	RRL	15.9%	10.8%		Total Land	Total	147,373		147,373		148,353	
Rural Small Town	RST	0.1%	0.0%	**REGIONAL EMPLOYMENT**						**% Exist**		**%Exist.**
Rural Village	RVL	0.8%	0.0%		Total	Emp	59,677		73,761	24%	132,870	123%
Rural Mixed-use	RMX	1.0%	0.0%		Retail	Retail	21,816		21,402	-2%	69,744	220%
Rural Agricultural/Forestal	RAF	33.6%	25.0%	**REGIONAL POPULATION**								
SRL Waterfront	SRW	4.0%	0.8%		Dwelling Units	DUs	93,714		97,269	4%	177,384	89%
Coastal/Conservation	CC	2.2%	2.5%		Population	Pop	189,396		200,607	6%	357,644	89%
Beach Condo	BCR	0.0%	0.0%		School Enrollment	School	34,988		37,058	6%	66,071	89%
Suburban Conservation Area	SCA	0.0%	1.7%	**REGIONAL RATIOS**								
Enhanced Commercial Retail	ECR	0.0%	0.7%		Dwellings per Acre		3.57		2.21	-38%	3.32	-7%
Enhanced Mixed Use	EMX	0.0%	3.0%		Emp. Per Acre		4.55		6.67	47%	9.18	102%
Enhanced Mixed Residential	EXR	0.0%	10.2%		Pct. Developed		44%		53%	20%	63%	41%
Vacant/ Underdeveloped	VUD	0.0%	0.2%									

Table 3.4

Community Centers Alternative Summary Statistics

Description	Code	Base	CC Alt.		Description	Code	Existing	Percent	Base	Percent	CC Alt.	Percent
Status Quo	SQ	0.0%	0.0%		Single family	SF	24,044	17%	41,934	29%	51,575	35%
Urban Residential	URS	0.0%	0.5%		Multifamily	MF	2,180	2%	2,110	1%	4,201	3%
Suburban Residential Condo	SRC	0.0%	0.0%		Offices	OFC	372	0%	923	1%	1,372	1%
Urban Mixed-use	UMX	1.1%	0.4%		Streets	ROW	24,740	17%	21,945	15%	23,978	16%
Urban College Campus	UCC	0.0%	0.0%		Cultural / Civic	CULT	814	1%	3,007	2%	3,726	3%
Urban Public Institutional	UPI	0.0%	0.0%		Gov't / Institutional	INST	5,288	4%	2,715	2%	2,775	2%
Urban Parks/Conservation	UPK	0.0%	0.0%		Industrial	IND	1,141	1%	919	1%	3,456	2%
Suburban Res. High Density	SRH	0.1%	3.3%		Parking	PRKing	0	0%	0	0%	1,486	1%
Suburban Res. Mod. Density	SRM	2.9%	1.5%		Commercial retail	COM	5,494	4%	3,494	2%	6,767	5%
Suburban Res. Low Density	SRL	33.2%	42.5%		Public open	PuOPEN	1,237	1%	5,877	4%	5,757	4%
Suburban Mixed-use	SMX	3.8%	2.7%		Parks/playfields	PARK	127	0%	2,745	2%	3,369	2%
Suburban Commercial	SCM	0.2%	0.8%		Total Urban	Urban	65,437	45%	85,667	59%	108,462	73%
Suburban Office	SOF	0.0%	0.2%		Developable Vacant	VAC	42,315	29%	0	0%	0	0%
Suburban Industrial	SIN	0.0%	2.7%		Agricultural / Forest	AGR	36,863	25%	58,949	41%	40,010	27%
Suburban Public Institution	SPI	1.0%	1.0%		Total Land	Total	144,615	100%	144,615	100%	148,472	100%
Rural Res. Mod. Density	RRM	0.1%	0.0%		Unuseable land		2,758		2,758	2%	2,758	2%
Rural Res. Low Density	RRL	15.9%	0.0%		Total Land	Total	147,373		147,373		151,230	
Rural Small Town	RST	0.1%	0.0%	**REGIONAL EMPLOYMENT**						**% Exist**		**%Exist.**
Rural Village	RVL	0.8%	0.0%		Total	Emp	59,677		73,761	24%	159,731	168%
Rural Mixed-use	RMX	1.0%	0.0%		Retail	Retail	21,816		21,402	-2%	93,475	328%
Rural Agricultural/Forestal	RAF	33.6%	25.9%	**REGIONAL POPULATION**								
SRL Waterfront	SRW	4.0%	0.5%		Dwelling Units	DUs	93,714		97,269	4%	159,542	70%
Coastal/Conservation	CC	2.2%	2.5%		Population	Pop	189,396		200,607	6%	328,993	74%
Beach Condo	BCR	0.0%	0.0%		School Enrollment	School	34,988		37,058	6%	60,779	74%
Suburban Conservation Area	SCA	0.0%	6.7%	**REGIONAL RATIOS**								
Enhanced Commercial Retail	ECR	0.0%	2.6%		Dwellings per Acre		3.57		2.21	-38%	2.86	-20%
Enhanced Mixed Use	EMX	0.0%	3.1%		Emp. Per Acre		4.55		6.67	47%	8.83	94%
Enhanced Mixed Residential	EXR	0.0%	3.1%		Pct. Developed		44%		53%	20%	67%	51%
Vacant/ Underdeveloped	VUD	0.0%	0.0%									

Table 3.5: Trip Generation Adjustment for Walking/Bicycle Trips

		Percent Walk/Bike Trips		
		Home-based work	Home-based non-work	Non-home based
Urban Mixed-use	UMX	10%	30%	30%
Urban Residential	URS	10%	30%	30%
Suburban Residential Condo	SRC	10%	30%	30%
Urban College Campus	UCC	10%	40%	40%
Urban Public Institutional	UPI	10%	30%	30%
Urban Parks/Conservation	UPK	10%	30%	30%
Suburban Mixed-use	SMX	3%	5%	30%
Suburban Res. High Density	SRH	2%	2%	2%
Suburban Res. Mod. Density	SRM	0%	1%	1%
Suburban Res. Low Density	SRL	0%	1%	1%
Suburban Public Institution	SPI	0%	1%	1%
Suburban Industrial	SIN	0%	1%	1%
Suburban Commercial	SCM	0%	1%	1%
Suburban Office	SOF	0%	1%	1%
Rural Mixed-use	RMX	0%	1%	1%
Rural Res. Mod. Density	RRM	0%	0%	1%
Rural Res. Low Density	RRL	0%	0%	1%
Rural Agricultural/Forestal	RAF	0%	0%	1%
Rural Small Town	RST	0%	20%	50%
Rural Village	RVL	10%	20%	50%
SRL Waterfront	SRW	10%	20%	35%
Coastal/Conservation	CC	10%	20%	35%
Beach Condo	BCR	10%	20%	35%
Suburban Conservation Area	SCA	10%	20%	35%
Enhanced Commercial Retail	ECR	10%	20%	35%
Enhanced Mixed Use	EMX	10%	20%	35%
Enhanced Mixed Residential	EXR	10%	20%	35%
Vacant/ Underdeveloped	VUD	10%	20%	35%

Table 3.6
Total Trip Productions and Attractions

Trip Purpose	TCRPM-II	Percent	CC Alt.	Percent
Productions				
Home Based Work	214,850	14.3%	126,119	14.1%
Home Based Non-Work (1)	806,670	53.6%	426,713	47.8%
Non-Home Based	482,753	32.1%	340,447	38.1%
Total	1,504,273	100.0%	893,279	100.0%
Walk	NA	NA	33,857	3.7%
Attractions				
Home Based Work	190,059	13.0%	168,794	14.6%
Home Based Non-Work (1)	789,094	54.0%	649,633	56.1%
Non-Home Based	482,753	33.0%	340,447	29.4%
Total	1,461,906	100.0%	1,158,874	100.0%
Walk	NA	NA	135,933	10.5%

(1) Includes the Home Based Shopping, Home Based Social Recreational, and Home Based Other trip purposes.

TRANSPORTATION COMPONENT

Transportation options within the study area are currently characterized as limited and disconnected. An absence of viable and convenient travel options and walkable, transit-oriented development patterns results in the vast majority of trips being made via a single occupant automobile. A lack of roadway connectivity, particularly east/west connections and north/south options to US 1, forces vehicle trips to be funneled to a few major roadways, resulting in severe traffic congestion. As noted above, development patterns reinforce the lack of travel options by separating land uses and encouraging scattered, low-density development that must rely on the automobile.

Against this backdrop, this study seeks a more balanced land use and transportation system that will enhance mobility through increased travel options and travel corridors. In particular, this study is concerned with answering the question of whether strategic land use changes can result in the delay or even elimination of the major, grade-separated improvements that FDOT has proposed for a portion of the US 1 corridor.

Strategy Screening Process

A comprehensive transportation strategy screening process was undertaken to identify viable transportation strategies for the two alternative development scenarios described previously. The strategy screening process, which is based on congestion management system (CMS) research by the Federal Highway Administration, evaluates the potential application of numerous transportation strategies within a specific corridor or broader study area according to the following five prioritized strategy tiers:

- Level One: Actions that decrease the need for trip making (such as growth management strategies, creation of activity centers, congestion pricing, and some transportation demand strategies).
- Level Two: Actions that place trips into transit or other non-automobile modes (such as public transportation capital and operating improvements, parking management, and other strategies).
- Level Three: Actions that encourage the use of high occupancy vehicle (HOV) lanes.
- Level Four: Actions that optimize the roadway network's operation for single occupant vehicle (SOV) trips and for all other trips using highway facilities/modes (traffic signalization modifications, intelligent transportation systems, etc.).

- Level Five: Actions that increase the capacity of the roadway network for SOV trips by adding general-purpose lanes.

Potential strategies within each major tier are evaluated based on a series of strategy screening questions relating to specific conditions within the study area, including congestion levels, population and employment concentrations, income characteristics, and other factors. The screening questions are answered in a yes/no format and a strategy's viability is determined by the proportion of questions answered affirmatively.

The purpose of this strategy screening process is twofold. First, it is used to decisively eliminate those strategies that are definitely not feasible within the study area based on a particular strategy's population, employment, and other thresholds. Second, the screening process identifies those remaining strategies that *may* be applicable within the study area.

A strategy screen was conducted for the US 1 corridor within the study area for Tiers 1-3 to identify potential transportation strategies for use in formulating the transportation components of the two alternative scenarios. While the screening focused primarily on US 1, the area of analysis was broadly defined to include the entire study area. The US 1 strategy screen results are located in *Appendix D*.

Based on the results of the strategy screening process, heavy rail and light rail transit modes were decisively eliminated from further analysis. The screening criteria for light rail transit include a net residential density of nine dwelling units per acre or gross density of 6,550 persons per square mile, a major employment center of 20 million square feet of non-residential space and/or 42,000 total employees and an employment intensity of 10,000 employees per square mile. Although a few traffic analysis zones in Ft. Pierce, Port St. Lucie, and Stuart, approach the gross population density threshold, the study area as a whole (and the US 1 corridor specifically) falls well below the minimum population and employment thresholds. Light rail transit simply does not warrant strong consideration within the study area during the 2025 planning horizon of this study. However, as discussed further in the report, there are several specific recommended strategies to develop US 1 as a multimodal corridor to lay the groundwork for implementation of a major public transportation improvement, such as an LRT system, in the future.

Other transportation strategies were found to be viable based on the strategy screening process. These include expanded fixed route bus service, busway/bus rapid transit, and commuter rail. While not viable in every portion of the study area, these strategies were found to

have potential application within select corridors, particularly in combination with land use changes.

It is important to note that the development and evaluation of the land use and transportation components of the alternatives was an integrated, iterative process. In other words, the land use component was developed within the context the transportation strategy screening thresholds and the transportation strategies were developed to support the land use component. This process attempted to achieve a balance between structuring a land use pattern that promoted the greatest number of transportation strategies while also being realistic and feasible from an adoption and implementation perspective.

Identification of Candidate Transportation Projects

Based on the land use characteristics of both alternatives and the results of the transportation strategy screening process, several candidate roadway and transit projects were identified which would support the land use and community objectives of the two alternatives. Both alternatives emphasize premium transit service along US 1 in the form of a busway and rail service. The busway would feature high frequency transit service (20 minute headways in peak periods) with buses operating separately from mixed traffic with the ability to pre-empt or prioritize traffic signals. Regional rail service could include Amtrak and/or Tri-Rail service, providing connections into Palm Beach County and points south.

Both alternatives also propose a limited number of east/west high frequency (30 minute headways) feeder bus routes that would connect the proposed activity centers and other existing and proposed gathering points in the west (including strategic park and ride locations along I-95) to the US 1 busway at major transfer and intermodal centers. Local bus routes (1 hour frequencies) would operate in other areas to provide access between residential areas, businesses and these gathering points (transfer stops) along the high frequency routes. Local bus routes under both alternatives are generally consistent with those identified within the 2025 Long Range Transportation Plans. Finally, both alternatives also incorporate a few roadway projects to increase overall connectivity, provide additional east/west capacity, and to enhance alternative north/south corridors to US 1. Specific projects incorporated within each alternative are discussed below.

US 1 Alternative

The following key transportation components are included within this alternative.

- A busway (dedicated transit lane) along the length of US 1 from approximately Salerno Road in Martin County to downtown Ft. Pierce with buses operating on 20 minute headways.
- Passenger rail service (Amtrak and/or Tri-Rail) along existing FEC tracks from Palm Beach County to downtown Ft. Pierce.
- Several east/west high frequency (30 minute headway) bus routes connecting western parts of both counties to the US 1 busway.
- A network of local fixed bus routes (60 minute headways) connecting to the high frequency bus routes and to the busway.
- Transfer/intermodal centers providing connections to and between the various transit modes.
- A few key roadway improvements emphasizing increased connectivity within the study area.

As structured, the US 1 alternative emphasizes high frequency transit service along the US 1 corridor in the form of the busway and rail service. The busway would feature high frequency transit service (20 minute headways in peak periods) with buses operating separately from mixed traffic with the ability to pre-empt or prioritize traffic signals. Bus stops would be placed approximately every half mile to one mile along the corridor. Rail service under this alternative could include Amtrak and/or Tri-Rail service. Either service would provide connections between major activity centers within the study area (such as downtown Ft. Pierce, Jensen Beach, and downtown Stuart), Palm Beach County and points south.

A limited number of east/west high frequency (30 minute headways) bus routes would provide interconnected service to the US 1 corridor under this alternative. These routes are envisioned to operate along Prima Vista Boulevard, the West Virginia corridor, Port St. Lucie Boulevard, Martin Downs Boulevard, Kanner Highway, and Salerno Road. These routes would provide east/west connectivity from existing and proposed gathering points to the west (including strategic park and ride locations along I-95) to the activity centers and major transfer stations along US 1. Local bus routes (1 hour frequencies) would operate in other areas to provide access between residential areas, businesses and these gathering points (transfer stops) along the high frequency routes.

This alternative also incorporates a few roadway projects to increase overall connectivity, provide additional capacity to connect west to east, and to enhance alternative north/south corridors to US 1. Roadway projects include the West Virginia corridor in Port St. Lucie, the Western Connector in Martin County, the Green River Parkway extension, an extension of Port St. Lucie Boulevard east of US 1 to the new Green River Parkway segment, a connection across the Turnpike from Paar Drive to Southbend Boulevard, and a connection across the Turnpike from Tulip Boulevard to Southbend Boulevard.

Community Centers (Nodal) Alternative

Because this alternative clusters future growth within distinct mixed use nodes located at major intersections in the study area, transportation investments for this alternative emphasize connections between the development nodes and the US 1 corridor. The following key transportation components are included within this alternative and discussed in detail below:

- A busway along Kanner Highway and US 1 from Cove Road to downtown Ft. Pierce with buses operating on 20 minute headways.
- Rail service along existing FEC tracks from Palm Beach County to downtown Stuart.
- Several east/west high frequency (30 minute headway) bus routes connecting to the US 1 busway.
- Local fixed bus routes (60 minute headways) connecting to the high frequency bus routes and to the busway.
- Transfer/intermodal centers providing connections to and between the various transit modes.
- A few key roadway improvements emphasizing increased connectivity within the study area.

As with the US 1 alternative, a busway is proposed along US 1 that would also serve Kanner Highway and connect to the proposed enhanced commercial retail activity center in the vicinity of Kanner Highway and I-95. In other respects, the busway would operate as described in the US 1 alternative. Rail service (Amtrak and/or Tri-Rail) is also included within this alternative to downtown Stuart. This is because the lack of concentrated development on US 1 under this alternative would not support a higher level of investment in commuter rail service from a cost/benefit and feasibility perspective. However, if Amtrak succeeds in establishing limited intercity rail service along the east coast of Florida (from Jacksonville to Miami), then station locations in both Stuart and Ft. Pierce are planned as part of this service.

Several high frequency (30 minute headway) bus routes would also connect the activity centers to each other and to the US 1 busway. These routes are proposed to operate along Midway Road, Gatlin Boulevard/Port St. Lucie Boulevard/Midport Road, Port St. Lucie Boulevard, and along the Western Connector/Martin Downs Boulevard in Martin County. As in the US 1 alternative, local circulator bus routes would provide service from residential areas within the activity centers to the high frequency bus route and to the US 1 busway. Local bus routes are generally consistent with those identified within the 2025 Long Range Transportation Plans. Roadway projects included within this alternative are the Western Connector and Green River Parkway in Martin County and the eastern extension of Britt Road to the Green River Parkway.

EVALUATION OF ALTERNATIVES

Each alternative network was initially evaluated using FDOT's recently updated Treasure Coast Regional Planning Model (TCRPM-II), the travel demand forecasting model used by both MPOs in preparing the 2025 Long Range Transportation Plans (LRTPs). A model network for each alternative was created by coding the roadway and transit projects within each alternative into the TCRPM-II. Projects with committed construction funding were also coded as a separate network for comparison purposes. This network is known as the Existing plus Committed (E+C) network and includes those projects with construction funding programmed during the next five years.

Each alternative network was then modeled using the TCRPM-II and the appropriate socioeconomic data to forecast 2025 roadway volumes and transit ridership. For the E+C network, the MPOs' adopted 2025 socioeconomic data was used. For the Community Centers (Nodal) and the US 1 alternatives, the adjusted socioeconomic data described above was used to reflect the land use assumptions within each alternative. Adjustments were also made to the trip generation rate assumptions within the TCRPM-II to simulate the trip-making behavior associated with the community prototypes inherent in the land use assumptions for each alternative (presented earlier in the chapter).

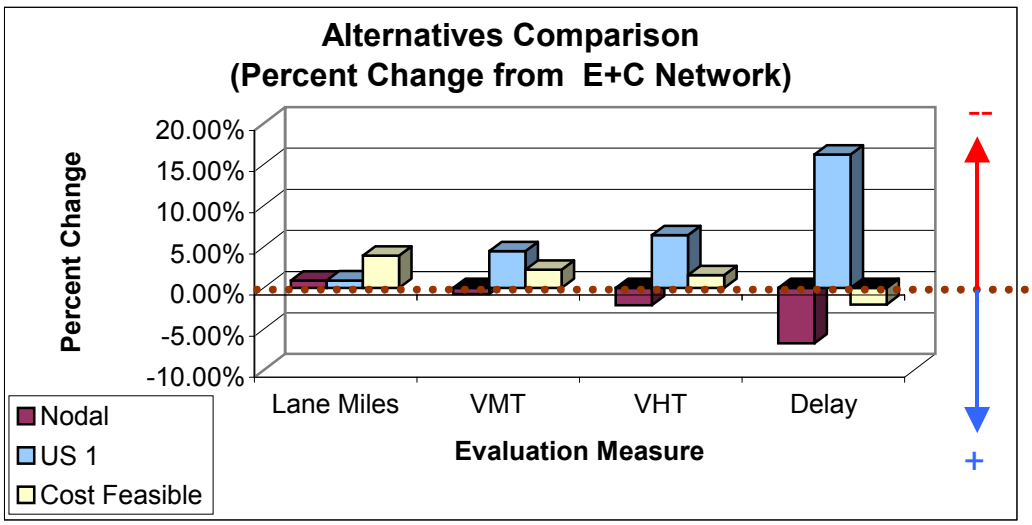
The model results for each alternative were then compared with each other and with the existing (E+C) network and the MPOs' 2025 LRTPs (cost feasible network) to assess overall system performance and to ultimately select a preferred alternative for more detailed analysis

and evaluation. This comparison, which is summarized in *Table 3.7* and *Figure 3.4*, was undertaken using several primary and secondary output measures generated directly by the TCRPM. These included comparing total lane miles, total vehicle miles of travel, total transit ridership, total project costs, and other measures. The table includes the model-reported values for the primary measures for the E+C network and the absolute and percentage change from the E+C network for each alternative and the cost feasible network. The percent change for each primary measure is also shown in the figure.

Table 3.7
Alternatives Evaluation Matrix

Network Alternatives Comparison	Existing+Committed Network	Network Alternative					
		Cost Feasible		Centers (Nodal)		US 1	
		Change from E+C Network					
Primary Measures	**Absolute**	**Absolute**	**Percent**	**Absolute**	**Percent**	**Absolute**	**Percent**
Total Lane Miles	3,062.4	119.96	3.9%	27.6	0.9%	28.2	0.9%
Total Vehicle Miles of Travel	18,629,494.0	411,816.00	2.2%	-138,576.0	-0.7%	831,034.0	4.5%
Total Vehicle Hours of Travel	436,947.0	6,768.00	1.5%	-9,096.0	-2.1%	27,989.0	6.4%
Total Delay (vehicle hours)	61,879.3	-1,239.02	-2.0%	-4,157.7	-6.7%	10,023.6	16.2%
Secondary Measures	**Absolute**	**Absolute**	**Percent**	**Absolute**	**Percent**	**Absolute**	**Percent**
Total VMT V/C	0.7	-0.02	-2.9%	0.0	-2.9%	0.0	2.9%
Total Cong. Speed (MPH)	41.7	0.12	0.3%	0.3	0.6%	-0.5	-1.2%
Total CO Emissions (Kgm)	181,496.0	4,182.00	2.3%	-2,112.0	-1.2%	10,071.0	5.5%
Total HC Emissions (Kgm)	23,463.0	459.00	2.0%	-271.0	-1.2%	1,217.0	5.2%
Total NO Emissions (Kgm)	27,874.0	704.00	2.5%	-137.0	-0.5%	1,136.0	4.1%
Total Fuel Use	1,660,022.0	49,167.00	3.0%	-21,413.0	-1.3%	68,233.0	4.1%

Figure 3.4



The following primary measures were used to compare and evaluate the alternatives:

- *Total lane miles:* A measure of the total lane miles throughout the entire network. Total lane miles for each alternative were compared with the E+C network to determine the total lane miles of new improvements.
- *Total VMT:* This measure reports the total vehicle miles of travel on the roadway network. Changes in VMT reflect increases or decreases in both the number of vehicle trips on the roadway network and the relative length of vehicle trips. Longer and more frequent vehicle trips (as expressed by VMT increases) indicate higher levels of congestion and less use of other travel modes, such as transit. Conversely, VMT decreases reflect fewer and shorter vehicle trips and the increased use of other modes.
- *Total VHT:* This measure reports the total vehicle hours of travel throughout the network. As with VMT, this measure reflects relative travel characteristics and automobile usage within the network. Changes in VHT also reflect increases or decreases in the number and length of vehicle trips as well as the relative usage of other travel modes.
- *Total delay:* Total delay measures the amount of travel time lost due to roadway congestion as measured by vehicle hours. Increases in total delay reflect rising roadway congestion as well as longer and/or more frequent vehicle trips. Conversely, decreases in total delay reflect less congestion and shorter and/or less frequent vehicle trips.

In addition to the performance measures discussed above, transit ridership was also estimated for the two alternatives. (Because the E+C network includes only projects funded within the next five years, there is not a fixed route transit component to this network.) Although the TCRPM is not ideally suited to modeling or evaluating transit usage, it does provide total transit ridership for each alternative. According to the model output, transit ridership for the Community Centers alternative is estimated to be about 3,000 per day. Daily ridership of 4,400 is forecast for the US 1 alternative.

Evaluation Results

The results of the comparative evaluation indicated that the Community Centers alternative outperforms both the US 1 alternative and the adopted Cost Feasible networks. Even though the Community Centers alternative includes roughly the same number of miles of roadway improvements as the US 1 alternative (and substantially less than the Cost Feasible networks), it outperforms both networks in terms of the measures discussed above. Conversely, the US 1

alternative underperforms the Community Centers alternative and the Cost Feasible networks even though it has nearly the same number of miles of roadway improvements as the Community Centers alternative and less than the Cost Feasible network.

There are two important explanations for these findings. First, the clustering and mix of uses within the activity centers under the Community Centers alternative result in shorter and less frequent automobile trip-making characteristics, as well as the increased use of non-auto transportation modes, particularly walking. This is because clustering complementary land uses together, such as by locating neighborhood commercial activities close to residential areas, provides a more favorable environment for walking and lessens the need to make lengthy or multiple automobile trips. Second, although transit ridership is higher under the US 1 alternative, the increase in transit ridership and non-automobile trips does not offset the increased traffic congestion of the concentrated US 1-focused development pattern incorporated within this alternative.

Based on the comparative evaluation results discussed above, the Community Centers alternative was chosen as the recommended alternative. This alternative provides greater overall benefits for a significantly lower cost. In evaluating the long-term costs of this alternative, even with a substantial investment in high capacity transit service that would include a dedicated lane for buses on US 1 and initiation of rail service into the study area, this alternative is less than half as costly as the combined Cost Feasible Plans for the St. Lucie County and Martin County MPOs. *Figure 3.5* and *Table 3.8* identifies the transportation projects included in the Community Centers alternative. It should be noted that this alternative assumed that all projects in the MPOs' five year Transportation Improvement Programs would be constructed and are therefore not shown on the map.

The transportation analysis also found that a balanced transportation system is needed for the Community Centers vision to work. First, it means the region must build more interconnecting roadways to reduce traffic pressure on key roads like Port St. Lucie Boulevard and US 1. The West Virginia Corridor in Port St. Lucie, the Western Corridor and Green River Parkway in Martin County, for example, are needed to support the creation of new Community Centers. These and other interconnecting roadways are effective in reducing traffic congestion, although other roads, like Midway Road and Cove Road, will need to be widened by 2025.

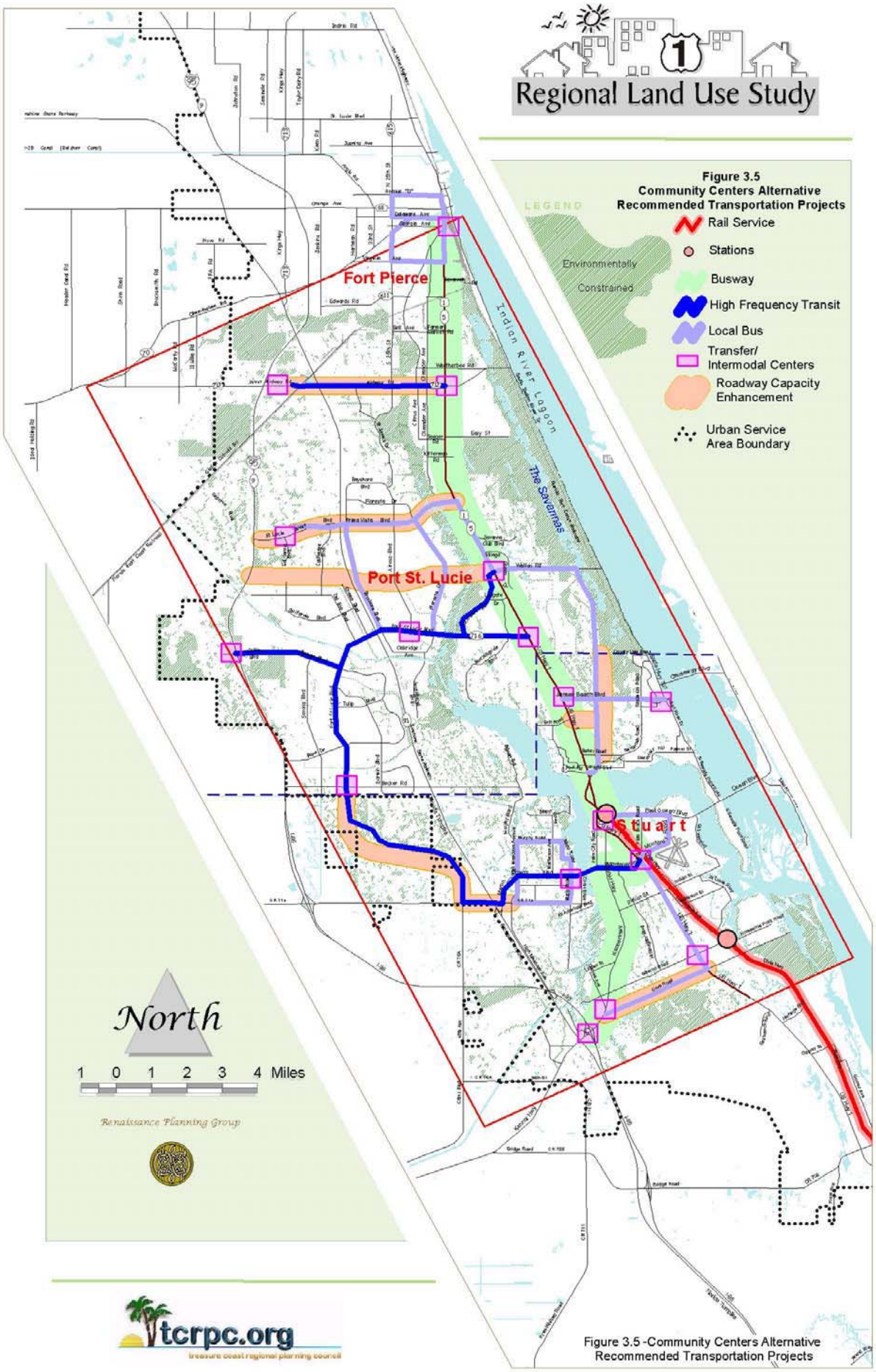


Figure 3.5 -Community Centers Alternative Recommended Transportation Projects

Table 3.8
Community Centers Alternative Transportation Projects

County	Roadway	From	To	Existing Lanes	Proposed Lanes
Martin	Britt Road Extension	US 1 (SR 5)	Green River Parkway	0	2
Martin	Cove Road	SR 76	US 1 (SR 5)	2	4
Martin	CR A1A	Monterey Road	Indian Street	2	4
Martin	Florida Turnpike	Okeechobee Waterway	Okeechobee Waterway	Replace Bridge	
Martin	Fox Brown Road	SR 714	SR 710	Reconstruct 2 Lanes	
Martin	Green River Parkway	St. Lucie County	SR 707	0	2
Martin	Indian Street	SR 76	US 1 (SR 5)	2	4
Martin	Market Street	Willoughby Boulevard	Edison Avenue	0	2
Martin	Monterey Road	CR A1A	Kingswood Terrace	2	4
Martin	Palm Beach Road	Monterey Road	Osceola Avenue	2	3
Martin	SR 714	Highmeadows Avenue	Western Connector	2	4
Martin	SR 732	Jensen Beach Causeway	Jensen Beach Causeway	Replace Bridge	
Martin	SR A1A	Evans Crary Bridge	Evans Crary Bridge	Replace Bridge	
Martin	SR A1A	Ernest Lyons Bridge	Ernest Lyons Bridge	Replace Bridge	
Martin	Westen Corridor	Port St. Lucie Boulevard	SR 714 @ CR 76A	0	2
Martin	Willoughby Boulevard	US 1 (SR 5)	Monterey Road	0	4
Martin	Willoughby Boulevard	Salerno Road	Cove Road	0	2
St. Lucie	Bayshore Boulevard	Port St. Lucie Boulevard	Prima Vista Boulevard	2	4
St. Lucie	Gatlin Boulevard	Port St. Lucie Boulevard	Interstate 95	4	6
St. Lucie	Johnston Road Extension	North of Pantherwood PUD	Indrio Road	0	2
St. Lucie	Lennard Road	Port St. Lucie Boulevard	Port St. Lucie City Limit	2	4
St. Lucie	Lennard Road	Port St. Lucie City Limit	US 1/Prima Vista Boulevard	0	2
St. Lucie	Prima Vista Boulevard	Interstate 95	US 1 (SR 5)	2-4	4
St. Lucie	South 25th Street (SR 615)	West Midway Road	Edwards Road	2	4
St. Lucie	Walton Road	Village Green Drive	Lennard Road	2	4
St. Lucie	West Midway Road	I-95 (SR 9)	South 25th Street	2	4
St. Lucie	West Midway Road	Souh 25th Street	US 1 (SR 5)	2	4
St. Lucie	West Virginia Drive	I-95 (SR 9)	Bayshore Boulevard	0	2*
St. Lucie	West Virginia Drive	Floresta Avenue	US 1 (SR 5)	0	2*
St. Lucie	West Virginia Drive	Interstate 95	Interstate 95	New Interchange	

*Note: West Virginia Drive was tested as two lanes but an ultimate cross-section of four lanes is recommended.

Although the Community Centers alternative provides a strong framework for addressing regional land use and transportation issues, it is not possible for this framework (or any integrated land use/transportation plan) to completely mitigate the region's traffic congestion. The transportation projects (both transit and roadway) and land use patterns incorporated within the Community Centers alternative do address many regionally significant transportation issues, such as increasing east/west connectivity and creating a better jobs/housing balance, but certain corridors and potential projects will need to be evaluated further.

Cost Comparison

The total transportation cost for the Community Centers alternative is about $467 million (*Table 3.9*). This includes about $367 million in roadway costs, over $65 million in public

transportation costs and $34 million in rail costs. These costs were compared with the combined costs of the two MPOs' adopted 2025 Long Range Transportation Plans (LRTPs) to assess potential cost/benefit trends. To make valid cost comparisons with the LRTPs, two adjustments were made. First, because the Community Centers vision includes all projects with committed construction funds during the next five years, the total cost of these projects ($277.5 million) was added to the combined cost of the LRTPs (*Table 3.10*). Second, because the LRTPs include many projects that are outside of the study area, the total cost of those projects ($148 million) was added to the Community Centers cost (*Table 3.9*). As shown in *Table 3.11*, the Community Centers vision cost is less than half (about 41 percent) of the combined cost of the two MPOs' 2025 LRTPs. This is very significant given the substantial system benefits provided by the Community Centers vision in comparison with the LRTPs. These findings indicate that the Community Centers vision provides greater benefit for a much lower implementation cost. The potential implications of the cost savings in implementing the Community Centers vision are discussed in *Chapter 4*.

Table 3.9
Community Centers Vision Transportation Costs

Community Centers Vision Transportation Costs	Total Base Cost	Total Adjusted Cost	Difference
Roadways	$367,438,940	$515,472,940	$148,034,000 (1)
Transit	$65,231,800	$65,231,800	$0
Rail	$34,082,220	$34,082,220	$0
Total Cost	**$466,752,960**	**$614,786,960**	**$148,034,000 (1)**

(1) The difference in roadway costs includes the addition of LRTP projects outside of the study area to ensure a valid cost comparison.

Table 3.10
2025 Long Range Transportation Plans Costs

2025 Long Range Transportation Plans (LRTPs)	Martin County	St. Lucie County	Total Cost
LRTP Projects	$343,944,000	$881,083,000	$1,225,027,000
Committed Projects	$218,490,000	$59,066,570	$277,556,570
Total Cost	**$562,434,000**	**$940,149,570**	**$1,502,583,570**

Table 3.11
Transportation Costs Comparison

Community Centers/2025 LRTPs Costs Comparison	Base Cost (C)	Adjusted Cost (D)
Community Centers (A)	$466,752,960	$614,786,960
2025 LRTPs (B)	$1,225,027,000	$1,502,583,570
Ratio of A to B	38%	41%

Flyovers on US 1

Recently completed studies by the Florida Department of Transportation identify the need for major roadway capacity increases for US 1 within the study area of the Regional Land Use Study. These capacity increases are needed to keep pace with projected traffic growth as a result of population growth and a continuation of existing travel patterns in the area. Such travel patterns include relatively long work trip commutes and shopping trips between St. Lucie County and Martin County, and the almost exclusive reliance on the automobile for all but purely recreational trips.

Traffic volumes on US 1 are projected to exceed 100,000 cars per day at Jensen Beach Boulevard by the year 2025. In addition to expanding the road to eight lanes north of the Roosevelt Bridge, identified projects include construction of grade-separated interchanges with flyover ramps at Jensen Beach Boulevard and Port St. Lucie Boulevard. Local elected officials and staff have indicated their reluctance to make these kinds of costly and physically imposing modifications to US 1.

The rationale for the Regional Land Use Study was to examine whether substantial changes in future land use patterns – one of the chief determinants of travel patterns – could affect the need for such major capacity roadway projects. To answer the question about whether the interchange flyover ramps will be needed with the alternative land use scenarios, an analysis was performed comparing the traffic volumes at the two intersections using a professionally accepted intersection planning analysis methodology that focuses on the critical lane movements (e.g., the heaviest volume for conflicting turning movements, such as southbound left turns and northbound through traffic). The analysis compared traffic projections under the Existing plus Committed (E+C) roadway network of adopted MPO plans (base scenario) for 2025 with the US

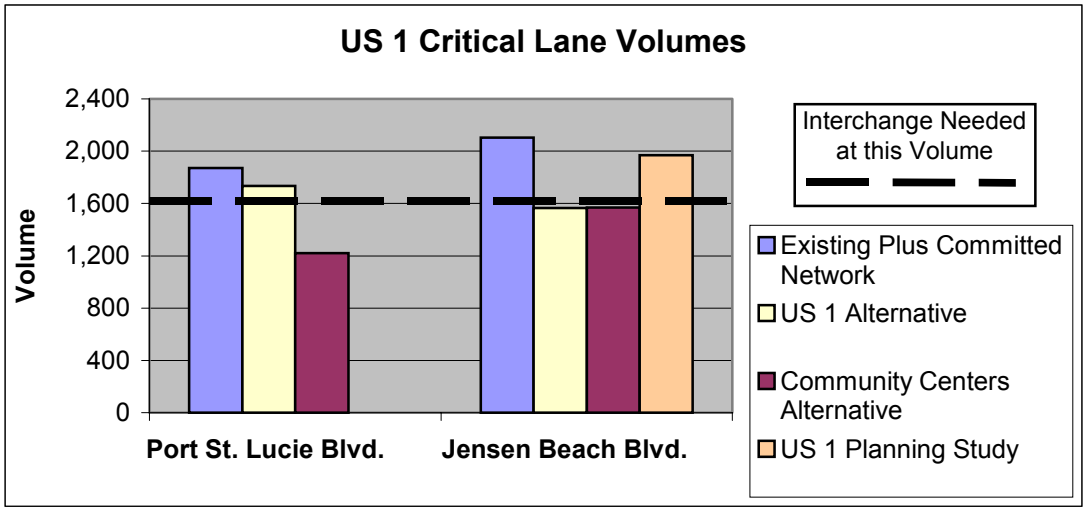
1 development scenario and the Community Centers development scenario for both the Jensen Beach Boulevard and Port St. Lucie Boulevard intersections. Traffic projections were also compared with FDOT's *US 1 Corridor Alternatives Study* for Jensen Beach Boulevard. (The study did not provide traffic projections for the Port St. Lucie Boulevard intersection.)

Roadway volumes from the TCRPM and from FDOT's *US 1 Corridor Alternatives Study* as well as logical assumptions regarding peak hour characteristics were used to identify the direction and peak hour volume of the critical movement for both intersections under each alternative scenario. The peak hour critical movement was then compared with the threshold of 1,600 vehicles per hour per lane. According to the analysis (conducted using the Excel spreadsheet software), the Community Centers alternative results in critical lane movements that fall below the threshold for grade separation at both intersections (*Figure 3.6*). The intersection analysis for the Community Centers alternative is shown in *Figure 3.7*.

In other words, if the Community Centers land use alternative is actually implemented, in the year 2025 it would result in shorter average trip lengths, greater use of non-auto travel modes, particularly walking and reduced vehicle trips to the point where grade separation of those two intersections would not be necessary. While the analysis showed that the Jensen Beach Boulevard/US 1 intersection would be close to its maximum at-grade capacity, the Port St. Lucie Boulevard/US 1 intersection fell well below the accepted traffic threshold for grade separations. Most of the other alternatives, including the US 1 development scenario and the

Figure 3.6

US 1 Interchange Traffic Analysis



MPOs' E+C networks, resulted in volumes that exceeded the threshold for grade separations at both intersections. Traffic projections for the US 1 development scenario indicated that the Jensen Beach Boulevard intersection would be close to maximum capacity and that the Port St. Lucie Boulevard intersection would exceed the critical threshold.

Thus, the Community Centers alternative, which includes a combination of roadway and transit projects in addition to changes in land use patterns, holds the promise of ameliorating the long-term need for construction of interchange flyover ramps at these two critical intersections within the study area. It should be noted that this analysis was performed at a planning level of detail for a condition 25 years into the future. The analysis assumes a substantial change in development patterns over time. It is also very difficult to accurately predict future turning movement volumes at intersections, and, therefore, more detailed traffic operations analyses would need to occur beyond the scope of the Regional Land Use Study to verify the findings. However, the analysis was performed with standard professional methodology and practice, and should be considered as a valid indicator of a likely future outcome.

CONCLUSION

Based on the analysis of alternatives, consultation with the Real Estate Roundtable group and input received from the study Steering Committee, the Community Centers (aka Nodal) alternative is the recommended approach to blending transportation and land use in the study area. Primary reasons for this recommendation are:

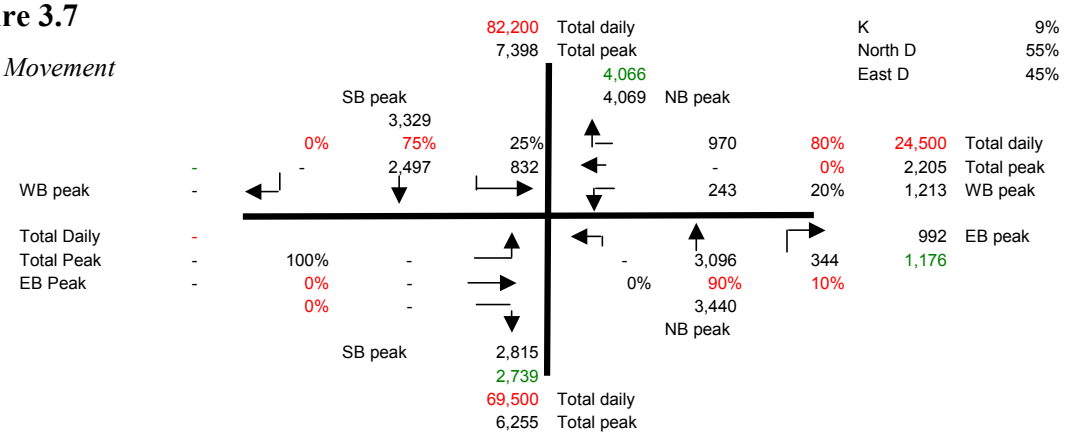
- It best reflects existing market demand. The development of community centers of various size and scale does not require a massive shift in the location of jobs or housing. Community centers should be established in areas where they will serve surrounding neighborhoods. General characteristics of the community centers (such as size) are summarized in *Chapter 4*.
- It provides for a balanced transportation system emphasizing both roadway connectivity and multimodal transportation options while still laying the groundwork to establish US 1 (and other roadways) as multimodal corridors.
- It provides significant overall transportation system benefits (such as reduced congestion) as compared to the US 1 alternative and the MPOs' 2025 cost feasible transportation plans at less than half (41 percent) of the total cost of the LRTPs.

Implementation of the Community Centers vision is addressed in *Chapter 4* and will be assessed in more detail in Phase II of the study.

Figure 3.7

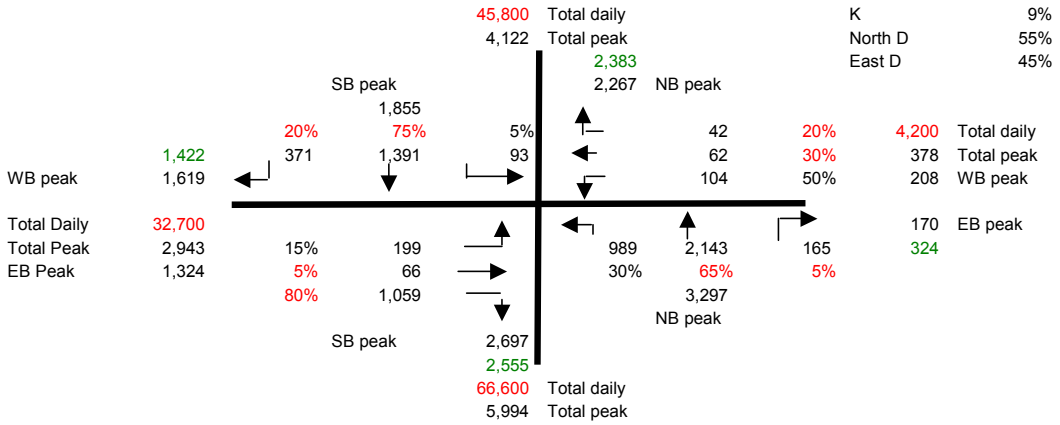
US 1 Critical Movement Analysis

US 1 at Jensen Beach Blvd. (Community Centers)



Mvmts	Lanes	Volume	per lane		
EBL	-	-	-	EBL WBT	-
EBT	-	-	-	WBL EBT	121
EBR	-	-	-	EW Crit	121
WBL	2	243	121	NBL SBT	832
WBT	-	-	-	SBL NBT	1,448
WBR	2	970	485	NS	1,448
NBL	-	-	-	Crit. Mvmt	1,569
NBT	3	3,096	1,032	Threshold	1,600
NBR	1	344	344		
SBL	2	832	416		
SBT	3	2,497	832		
SBR	-	-	-		

US 1 at Port St. Lucie Blvd. (Community Centers)



Mvmts	Lanes	Volume	per lane		
EBL	1	199	199	EBL WBT	261
EBT	3	66	22	WBL EBT	126
EBR	1	1,059	1,059	EW Crit	261
WBL	1	104	104	NBL SBT	958
WBT	1	62	62	SBL NBT	807
WBR	1	42	42	NS	958
NBL	2	989	495	Crit. Mvmt	1,219
NBT	3	2,143	714	Threshold	1,600
NBR	1	165	165		
SBL	1	93	93		
SBT	3	1,391	464		
SBR	1	371	371		

CHAPTER 4

IMPLEMENTATION PLAN AND MONITORING PROGRAM

CHAPTER 4: IMPLEMENTATION PLAN AND MONITORING PROGRAM

INTRODUCTION

This chapter presents a recommended approach to the implementation of the Community Centers alternative and program for monitoring the region's progress toward achieving the plan. The monitoring program also addresses measuring the performance of the land use and transportation system to achieve goals and objectives developed through the Regional Land Use Study.

COMMUNITY CENTERS VISION STATEMENT

The context for the implementation plan and monitoring program is the vision statement developed for the study area based on the analysis findings described in previous chapter. This vision statement has been drafted to reflect local objectives, public input and technical analysis occurring through the Regional Land Use Study process. Thus, the vision for the study area is to:

Establish geographically dispersed compact, mixed-use activity centers that provide for better jobs-housing balance through complementary land uses in closer proximity to residential areas. The intent of creating such activity centers is to preserve environmentally sensitive areas and agricultural resources, and reduce the number of inter-county automobile trips and length of trips through expanded travel choices for residents and employees. In support of these centers, the region will

- Develop US 1 as a multi-modal transportation corridor through quality redevelopment and new development that features transit-supportive and pedestrian-friendly site design and infrastructure;
- Define the scale and develop design guidelines for mixed-use centers that reflect market demand and local character;
- Invest in public transportation strategies that reduce dependence on automobile travel between activity centers in St. Lucie and Martin Counties by providing accessible and convenient premium transit service linking key origins and destinations;
- Create an integrated network of roadways, greenways and bicycle/pedestrian facilities that improve connectivity and accessibility throughout the region, and
- Monitor land use and transportation trends to track the effectiveness of the Community Centers vision in meeting the area's livability and mobility objectives.

The various local governments, the two MPOs, and other stakeholders will use the vision statement to amend comprehensive plans, long range transportation plans, and other policy

documents, as necessary. A recommended implementation framework and monitoring program is discussed in the following sections of this report, and will be the subject of the study's second phase.

IMPLEMENTATION FRAMEWORK

Changing future land use patterns in an area like Martin and St. Lucie Counties, where the predominant development framework of small platted lots has been established for many years, is a long-term proposition. It is unlikely that substantial changes in land use patterns can occur within the next five, 10 or even 15 years. More likely is the piecemeal evolution of development changes taking place over a 20-40 year period. That said, without a clear vision and well-planned approach to making desired changes in land use patterns, it is arguably more likely that the two counties will face increasing western sprawl development, limited travel choices and associated traffic gridlock, fulfilling the projected need to expand US 1 with flyover interchanges and building more roads to the west.

The implementation plan for development of Community Centers to help change that scenario entails a combination of regulatory policies, development incentives and capital investment. While this may be a long-term effort, there are strategies that should be implemented in the short- and intermediate-term to begin establishing a new pattern and help influence market demand for mixed-use development, quality redevelopment, creation of housing variety and realization of walkable communities. Identification of implementation strategies occurred through review of various documents and programs and input received from the ad hoc Real Estate Roundtable group convened for this study.

One short-term change for area local governments is how they monitor the performance of the transportation system. Current measures that count the number of cars and measure delay at critical intersections to determine whether a new development project may be approved should be reconsidered. Rather than measuring only that one aspect of the adequacy of the transportation system, local governments should introduce non-auto transportation facilities and services, as well as building, parking lot and street design elements, into the site plan and concurrency review process. This would help shift the concurrency review focus from a narrow definition of automobile efficiency to overall quality of the transportation system.

In order to shift the focus to a multi-modal measure of transportation system performance, area local governments will need to quantify the existing conditions for non-automobile travel in the study area. This need not occur throughout the study area, but rather at specific locations where community centers will be designated and further defined, such as the redevelopment of the Village Green shopping center in Port St. Lucie. Florida Statutes and the amended state growth management rules allow for the creation of multi-modal transportation districts as a tool for managing concurrency while improving the quality of the transportation system for all users of the system. Such districts do not preclude the construction or widening of roads, but shift the emphasis from roadway capacity for automobiles to measures that reflect on the physical environment for non-auto travelers (e.g., transit service availability and frequency, pedestrian and bicycle facilities, etc.). Under this and other alternative concurrency management methods, local governments may waive the level of service requirement for congested roadways as a precondition for development as long as other performance measures are met. At least in the case of the multi-modal transportation districts, a local government must measure existing conditions, set a multi-modal level of service standard, and identify a capital improvements program for non-auto facilities that developers could help accomplish to receive development approvals.

Another recommended change is to improve interagency coordination and consistency in growth policies and strategies. Local governments must coordinate resources and target incentives and disincentives in an organized way to influence the market demand for development. The Community Centers vision reflects market demand in many respects, but clustering mixed land uses requires land acquisition in accordance with community center designs, stormwater master plans and improved connectivity - all potentially costly measures.

Much of this improved coordination should take place through routine joint meetings of the St. Lucie and Martin County MPOs as well as through regular, more informal, staff coordination. The two MPOs, including their technical advisory committees, occasionally meet jointly to discuss issues of regional significance. These types of meetings should become more routine and formalized over time, following similar regional coordination efforts occurring with the MPOs in the Tampa Bay area (the West Central Florida MPO Chairmen's Coordinating Committee), Central Florida and South Florida. Eventually, the staff directors or coordinators of the two MPOs, the Florida Department of Transportation and other agencies should meet monthly. The elected officials could continue to meet as they currently do with all members of both boards, or

only the chair and vice-chair of the MPOs. Regardless of the format, to achieve greater consistency and focus on the implementation of the community centers vision, quarterly joint meetings of the MPO boards should be routine within five years.

Another recommendation for implementation is to create an annual monitoring report that tracks trends in development and the transportation system to measure progress toward achieving the vision. To be effective, the monitoring report should be a concise summary of existing conditions and characteristics for the transportation and land use system that is easy to read and understand for a non-technical audience.

Because of the regional focus of the study and its recommendations, the responsibility to prepare the monitoring report should fall on an outside agency, such as Florida Atlantic University's Joint Center for Urban and Environmental Problems or the Treasure Coast Regional Planning Council. Either organization, or both in combination, could be contracted to prepare a monitoring report that documents existing conditions for a handful of measures relating to the transportation system and development proposals and approvals. Given its involvement as the coordinator of this study and its subsequent phase dealing with implementation, the Treasure Coast Regional Planning Council should be given strong consideration as the entity responsible for completing the monitoring report.

Implementation Steps

The steps to implement the Community Centers vision take place within the context of local government comprehensive plans, land development regulations, transit development plans, and other plans of the local governments within the study area and Martin and St. Lucie Counties as well as the adopted long range transportation plans and five year transportation improvement programs of the two MPOs. The steps generally entail the following:

- **Define and classify appropriate locations for community centers through the Comprehensive Plans.** This step is necessary to begin the process of planning for the community centers. Community centers should be identified as regional, community or neighborhood in scale and orientation, reflecting available land and the market demand from surrounding areas. A different set of design guidelines and public facility needs relate to each type of community center according to its size and area of influence.
- **Establish a Multi-modal Transportation District for the US 1 corridor, and/or selected regional and community activity centers, as appropriate.** As described previously, a multi-modal transportation district is allowed by state law to increase

flexibility and promote development of the multi-modal transportation system through the concurrency management process. Once centers are defined and classified, local governments should identify which ones merit consideration as multi-modal transportation districts and then establish a new level of service standard. A capital improvement program must be defined to achieve the standard. Given the focus on US 1 for this study, it is recommended that the length of US 1 through the study area be designated as a single multi-modal transportation district. The existing Transportation Concurrency Exception Area in Stuart could be incorporated into the multi-modal district without much difficulty.

- **Prepare design guidelines and standards for redevelopment of existing centers and creation of new centers.** As stated previously, design standards must accompany the identification of community centers, including street layout, typical sections and connections, building orientation, parking design and location, and definition of the community center edge.
- **Prioritize transportation and other capital investments (e.g., utilities, stormwater/sewer, etc.) to serve existing and planned community centers.** The Real Estate Roundtable group convened for this study identified the most important development incentive to influence the private market is construction of capital facilities and projects. For each designated community center, affected local governments should identify the infrastructure needs, including roads, stormwater facilities, sewer and water lines, through their five year Capital Improvement Programs to accommodate the projected development intensity of the center(s).
- **Revise local ordinances and development policies to encourage private sector participation in the creation of the Community Centers vision.** This task relates to the land development regulations of each jurisdiction and what incentives or disincentives are used to guide the type and scale of development.
- **Amend the MPO Long Range Transportation Plans (LRTPs).** Each of the two MPOs in the area has an adopted long-range transportation plan that is financially feasible through the year 2025 based on a projection of available revenue sources. The LRTP guides the selection of transportation project priorities each year, as well as the preparation of the five-year Transportation Improvement Program. Amending the LRTP can occur at any time, and is subject to the review of the Florida Department of Transportation and Federal Highway Administration. As described elsewhere in this report, if the region chooses to follow the recommended Community Centers vision, the LRTPs should be amended to set priorities for funding the transportation projects outlined. Specific recommendations are described in a subsequent section of this chapter.

As discussed in *Chapter 3*, the potential transportation cost savings from fully implementing the Community Centers vision in comparison with the two MPOs' LRTPs is substantial. Because these surplus funds may not automatically transfer to other local projects, it is important for the two MPOs to coordinate closely in working with FDOT to re-direct any surplus funds.

This is particularly important regarding the MPOs' annual lists of priority projects and Transportation Improvement Programs and FDOT's five year work program, the three primary mechanisms through which transportation funding is allocated.

Table 4.1 (appended to this chapter) presents a comparison of potential implementation measures. These strategies could all apply to the study area, given local issues and opportunities. The table identifies strategies to support changes to the land use pattern and to develop a more balanced transportation system. Strategies are presented in terms of their primary objectives, principal area of application (e.g., redevelopment or creation of centers), likely cost to implement (either capital or operating), the administrative effort required from the implementing agency or agencies, whether private sector support is required or simply desired, and how likely the strategy is to be effective at meeting the objective(s).

It should be recognized that there is no single approach or "silver bullet" to achieve desired community development objectives as outlined in this study. Rather, it will likely require a combination of strategies, applied within the context of local regulations, procedures and public participation. Each local government within the study area should determine the best combination of strategies through a process of increased inter-agency coordination to ensure that chosen policies do not conflict or directly compete with an adjacent jurisdiction. This will need to be part of the ongoing monitoring program.

Land Use Policies

The Future Land Use Elements of local government comprehensive plans should be amended, where necessary, to establish mixed-use overlay areas in locations where community or town centers make sense. Both map and text amendments should delineate the boundaries of the mixed-use areas, consistent with designated regional or community activity centers. Criteria for mixed-uses should be clearly articulated. Once these areas are so designated, the local governments can begin working on land use policies that would promote private sector participation, including programs such as Transfer of Development Rights, with agricultural, farm land or open space as "sending zones" and designated centers as "receiving zones." This type of program attempts to provide a market-based compensation to private landowners who want to develop their land outside of designated urban areas. Other programs may include expedited development review for projects that demonstrate consistency with the design

standards and policies; fee waivers or reductions for projects that reduce traffic impacts through site development strategies or other mitigation measures; and density bonuses that encourage more efficient use of the land on a given site or parcel.

At a minimum, community centers must have a distinct set of urban design guidelines and standards in place that clearly convey how the area is to develop, or redevelop. In the context of this study's recommendations, the standards should promote pedestrian activity within the center boundary by addressing the internal street pattern and size, the orientation of buildings to the street and each other, the location and design of parking, and infrastructure and access to public transportation. Of equal importance is the need to clearly define the edge of the center so that it is distinguishable from surrounding development. This is usually accomplished through landscape/streetscape design amenities and physical features, but rather than form a barrier (e.g., a wall) such features should encourage a high degree of pedestrian accessibility to the center.

For the community centers vision to work, connectivity of centers to the surrounding neighborhoods and other centers is essential. This connectivity could take several forms, including bike paths, sidewalks and streets. Streets should be designed to keep traffic moving at a speed that is comfortable for non-automobile users, ideally at speeds of 25-30 miles per hour. The use of traffic calming measures such as curb bulb-outs, roundabouts or even on-street parking should be considered where appropriate.

US 1 Multi-modal Corridor

A key purpose of the Regional Land Use Study is to craft a land use strategy that would expand the array of viable travel choices in the study area. Merely establishing bus service or building sidewalks along US 1 is not likely to have any substantive effect on improving mobility or accessibility, without also addressing the character and scale of the built environment. Therefore, a central feature of the Regional Land Use Study vision is for the study partners to work in coordinated fashion to gradually develop US 1 within the study area into a multi-modal corridor that offers a more balanced and effective transportation system linking key centers of activity.

US 1 is the spine serving the established urban cores in both St. Lucie and Martin Counties. The cities of Fort Pierce and Stuart have made great strides in redeveloping and revitalizing their downtown cultural, civic and economic centers as quality places that are comfortable for people.

Port St. Lucie is now planning to create a new downtown focused at the Village Green Shopping Center on US 1. Yet, a suburban development pattern with disjointed land uses and a steadily increasing traffic count between the two counties has limited revitalization efforts and generally precluded use of non-auto forms of travel within the corridor. US 1 will still need to carry high volumes of traffic in the future, but by creating a multi-modal environment, the study partners can transform US 1 into a more accessible destination that offers multiple travel options and helps reduce the need for construction of costly interchanges.

Short-term (1-5 years) improvements that will contribute to the establishment of US 1 as a multi-modal corridor should include:

- Fixed route bus service between Port St. Lucie and Stuart, operating every half hour 12-14 hours per day (funds are currently programmed to implement this service);
- A Multi-modal Transportation District covering the length of US 1 in the study area as a concurrency management strategy that establishes a multi-modal level of service standard (similar to roadway level of service) with a specific set of capital improvements needed to achieve and maintain that standard;
- Pedestrian, bicycle and transit facilities and infrastructure (e.g., shelters, informational kiosks, sidewalks, bus loading pads, lighting, bicycle paths and racks, shade trees, etc.) at logical locations to increase passenger comfort, safety and convenience, and
- The establishment of a mixed-use overlay zones with urban design guidelines or standards that promote building proximity, a diversity of uses, shared parking, a pedestrian scale and design features to facilitate access between sites and travel modes.
- Longer-term (10-25 years) features of the US 1 multi-modal corridor should include:
- Two-lane, low-speed collector grid-like streets serving new development or redevelopment on either side of US 1 that emphasize connectivity, property access and pedestrian comfort over vehicle mobility;
- Intermodal transfer areas within or adjacent to mixed-use centers where east-west connecting bus routes converge with US 1 service, and where bicycle/pedestrian facilities and public open space amenities support connectivity;

- Premium transit service within the corridor, such as a busway with dedicated lanes for transit vehicles and supporting technology, offering competitive travel times with automobiles;
- Circulator transit service (trolleys or other types of attractive transit vehicles) internal to downtown areas connecting structured parking areas or residential/tourist areas with commercial activities, and
- Regional passenger rail service (e.g., Amtrak or Tri-Rail) along the Florida East Coast Rail line or other suitable alignment with access to US 1.

Illustration of a busway on State Road 24, as adopted in the Gainesville (FL) Long Range Transportation Plan. A similar concept is proposed for US 1 between St. Lucie and Martin Counties.

These strategies of varying cost and scale would gradually transform US 1 from a high-speed through traffic corridor into a place of destination and improved personal mobility. The objective is not to promote big-city, high-density development or force people to give up their automobiles, but to provide travel choices and increased opportunities for economic investment in a corridor that holds a wealth of potential.

While multi-modal investments in US 1 are integral to the region's transportation system, it should be noted that other important corridors in the study area should also be treated as multi-modal corridors. As ongoing and planned public transportation, bicycle/pedestrian, and other multi-modal investments occur in these corridors, the character and function of these roadways will also evolve to maximize mobility for people as well as for automobiles. Such multi-modal investments will also serve to maximize public investment in the development of new corridors, such as the West Virginia corridor in St. Lucie County and the Western Connector in Martin County.

Transportation Projects Recommendations

One of the most important recommendations of the Regional Land Use Study is a specific set of roadway and public transportation projects to complement and support the Community Centers vision. Accordingly, one key component of the implementation plan and monitoring program is incorporating the recommended transportation projects into local, MPO, and FDOT

transportation plans and work programs, particularly both MPOs' recently adopted 2025 Long Range Transportation Plans (LRTPs). Because many of the recommended roadway projects are either already funded for construction or included in the MPOs' LRTPs, this effort will primarily involve re-prioritizing some projects and adding a few projects. The recommended public transportation improvements will also need to be reflected in the LRTPs, the MPOs' Transit Development Plans, and in other appropriate plans. Specific recommendations are provided below.

Roadway Projects

The transportation analysis documented in *Chapter 3* demonstrates the need for more regional connectivity, particularly east/west connectivity, within the study area. In particular, the analysis indicated that the West Virginia corridor project, as well as capacity expansions to Prima Vista Boulevard (to a uniform four lanes from I-95 to US 1) and Midway Road (to four lanes from I-95 to US 1), are critical improvements that should be pursued by the St. Lucie MPO. In Martin County, the widening of Cove Road is also an important project. Because the Prima Vista Boulevard project is not currently included in the MPO's 2025 LRTP (and only portions of the Midway Road and West Virginia corridor are included), it is recommended that the St. Lucie MPO pursue LRTP amendments to include these projects as high-priority projects.

Public Transportation Projects

Public Transportation Projects: Unlike the roadway projects, most of the public transportation recommendations are not currently reflected in long range transportation plans. Accordingly, both MPOs' adopted 2025 LRTPs will also need to be amended to include the specific public transportation project recommendations, such as the US 1 busway. Although specific high-frequency fixed bus routes are identified in *Chapter 3*, it should be noted that this study does not attempt to prescribe a transit routing or scheduling plan. Rather, an overall level of transit service investment is recommended to complement and support the study's land use recommendations. Specific operating characteristics of the recommended fixed route bus service, particularly the community-oriented bus routes, will be determined through joint planning efforts of the MPOs, the counties' transit agencies and other stakeholders.

Activity Centers

The premise of the Community Centers alternative is the development of mixed-use activity centers that provide the context for enhanced travel options and shorter trip lengths. Activity centers function on many levels. There are three types of activity centers: regional centers, community centers, and neighborhood centers. The scale and size of activity centers needs to fit the local context. Regional activity centers serve as an employment base or as a location of goods and services that attract consumers from surrounding cities, towns and rural areas. From a transportation perspective, regional centers depend on regional transportation facilities like interstate highways, principal arterial roads, rail service or major intermodal stations for access. Examples of existing regional centers include downtown Ft. Pierce and downtown Stuart. Regional activity centers should be developed to approximately 500 acres in size. One or two additional regional centers are needed as the study area grows; however, it is not expected that major increases in density or concentration of activities will require regional activity centers larger than downtown Stuart.

Community centers are smaller in scale and provide retail, office and institutional uses serving multiple neighborhoods or a city. Community centers should be developed to approximately 100 acres in size. A few community centers will be needed as the study area continues to develop. Finally, multiple neighborhood activity centers should be developed in a way that enables strong integration with surrounding residential and commercial areas to promote pedestrian access. Such neighborhood centers, which support immediate surrounding residential areas with convenience or personal goods and services, should not be larger than 30 acres.

In this context, the region must define and classify its activity centers, and then develop appropriate design guidelines and development incentives to ensure they develop in a way that promotes walkable communities with convenient access to a range of transportation options. There will be a limited number of highly developed mixed use activity centers because of the supporting population projected for the two counties. Existing regional activity centers include the downtowns of Stuart and Fort Pierce, and the retail commercial center of Jensen Beach, site of the Treasure Coast Mall. All of these are located in the US 1 corridor. The St. Lucie West development has many of the elements of a regional center, such as a sports complex, office buildings and a commercial center, but because it lacks a concentration of complementary land

uses in relative close proximity, it functions more like a community center. As additional development occurs to increase the density of development in St. Lucie West, it could soon emerge as a true regional center.

Aside from Port St. Lucie's efforts to establish a new downtown at the redeveloped Village Green shopping center along US 1, future regional activity centers are likely to occur outside of the US 1 corridor. This is because of the westward migration of the population and regional transportation access provided by I-95, Florida's Turnpike and SR 70. With the construction of the Western Corridor in Martin County, for example, the potential exists for that roadway to spur the creation of a regional activity center at the county line where it will connect with Port St. Lucie Boulevard.

Regional activity centers, when designed for the comfort and convenience of the pedestrian, provide a strong supportive environment for public transportation. As a place of trip destinations, such centers can effectively serve as major hubs for transit service, where multiple routes and various modes converge to enable transfers and increase accessibility.

Local governments should define community and neighborhood centers through their planning and community development process. These centers enable jobs, goods and services to be located in proximity to residential areas, and provide important gathering points for public transportation services or community-based activities.

Monitoring Program

Following completion of the second phase of this project, the Treasure Coast Regional Planning Council should lead the coordination of a monitoring program designed to measure progress toward achieving the objectives and vision of the Regional Land Use Study. The monitoring program should be undertaken in partnership with the two MPOs, both counties, the municipalities in the study area, and the Florida Department of Transportation. As discussed previously, the FAU Joint Center could alternatively lead the monitoring program coordination. The primary advantage of this approach is that the Joint Center may be perceived as an impartial, neutral entity. However, the Joint Center lacks the statutory review or enforcement capabilities and local representation and knowledge that the TCRPC has.

The main feature of the monitoring program will be an annual report summarizing land use and transportation trends in the study area. The report could be funded as a joint activity of the

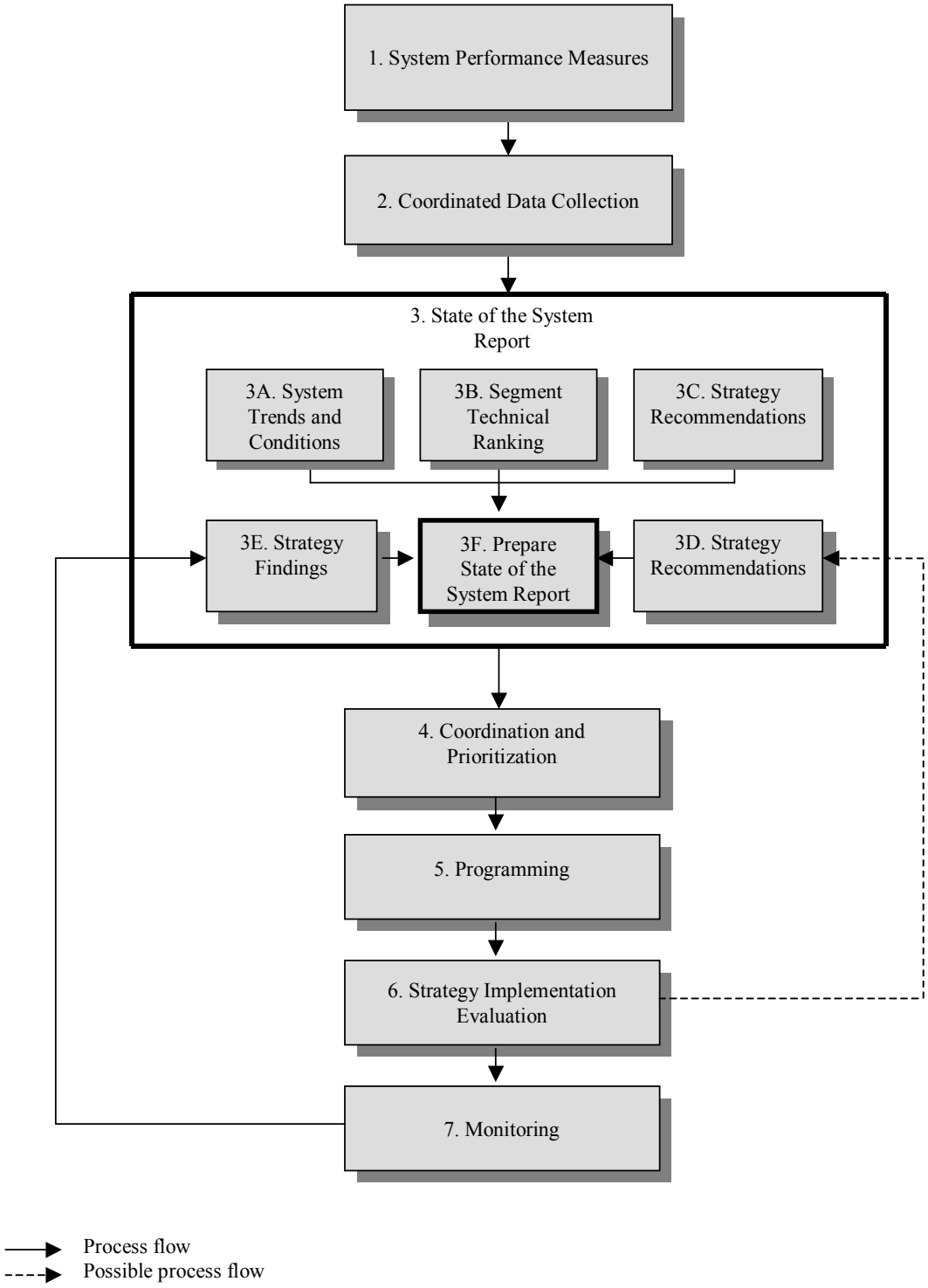
St. Lucie and Martin County MPOs, with preparation of the report a responsibility of the Treasure Coast Regional Planning Council. The report would be presented at a joint meeting of the two MPOs each year, and would help form the basis for a more cooperative planning effort over time. It will be important for the monitoring report to focus on multi-modal transportation system performance measures. The measures should focus not just on the provision of multi-modal facilities like bicycle lanes, but on how such facilities contribute toward creation of quality places, centers or corridors that are in keeping with the vision. The Brevard MPO has annually prepared a similar document for the past several years addressing transportation trends called the State of the System Report. As the report is updated each year, new data are included and compared with data from previous years to illustrate changing conditions and guide preparation of the annual Transportation Improvement Program and other documents. *Figure 4.1* illustrates the Brevard MPO's transportation monitoring process.

The cost to prepare the annual monitoring program is estimated to be about $15,000 to $25,000 initially, and then $10-15,000 to update the report each year, assuming it is completed by in-house agency staff. Funding for the report could come jointly from the two MPOs in the area, and or area local governments.

The monitoring report should be sent to the MPOs for St. Lucie and Martin Counties, the Florida Department of Transportation, the Boards of County Commissioners for Martin and St. Lucie Counties, and the elected boards for the cities of Fort Pierce, Port St. Lucie and Stuart, along with the members of the Treasure Coast Regional Planning Council. The report should include a written statement of performance for each evaluation measure, a summary of land use and transportation trends, and recommendations concerning whether potential adjustment or elimination of certain implementation strategies is needed. In addition, the document should include a timetable for completion of any strategies that have not yet been implemented, as well as a time frame for making any adjustments to the strategies based on the evaluation.

Public participation should be a continuing effort of the implementation process. Detailed planning charrettes should be undertaken for the development of emerging activity centers and preparation of design guidelines.

Figure 4.1
BREVARD MPO TRANSPORTATION MONITORING PROCESS



Source: Brevard MPO State of the System Report

Quantitative and Qualitative Measures

The monitoring program should be designed to capture trends and reflect changes occurring over time in comparison with a baseline condition that exists today. Measures of performance are intended to be both quantitative and qualitative. Example measures, which are described more fully in the technical report, may include the following:

- Proportion of jobs and housing within ¼ mile of potential transit corridors or designated mixed-use centers;
- Number of high quality, functional pedestrian or bicycling environments created (measured according to multi-modal level of service criteria);
- Amount of active public open space or greenways created within the existing urban service area;
- Acres of preserved land or parks, open space and greenways within ½ mile of mixed-use centers;
- Transportation investments (including public transportation infrastructure) that enhance non-automobile access to Community Redevelopment Areas (CRAs), mixed-use centers and other areas targeted for infill or redevelopment;
- Street connectivity index rating for new developments or redeveloped areas;
- Miles of greenways or multi-use pathways serving established developed areas and connecting to at least one mixed-use center, and
- Number of traffic-calmed streets that link residential areas with non-residential or mixed-use centers.

These evaluation measures will be further defined during Phase II of the project.

SUMMARY AND NEXT STEPS

The Regional Land Use Study represents a quantitative analysis of alternative land use patterns to address several key transportation, land use and economic challenges facing a 200-square mile are in the heart of St. Lucie and Martin Counties. The basic premise of the study is to determine how future land use changes might be able to reduce the long-term need for major capacity expansion of the US 1 corridor and bring about a more balanced transportation system that enables greater transportation choice. To that end, the study completed a vacant and redevelopable land inventory, evaluated alternative land use-transportation visions, and developed recommendations based on the technical analysis.

The findings of the Regional Land Use Study indicate that with a redirection of future land use patterns into a dispersed set of compact, pedestrian-oriented community centers serving key

market areas within the study area, it will likely be possible to avoid the need to construct grade-separated interchanges at key intersections along US 1 in Martin and St. Lucie Counties. Also, sufficient vacant land or land suitable for redevelopment would exist to accommodate projected population and employment growth within the existing urban services area. In support of those findings, the study partners will need to construct certain key roadway projects, such as the West Virginia Corridor, Green River Parkway and the Western Corridor in Martin County, to improve connectivity and provide alternatives to congested roadways. Furthermore, the area must begin making concerted efforts toward development of a multi-modal transportation system that would be able to meet some of the future travel demand by providing a viable alternative to automobile travel.

Phase I of the Regional Land Use Study sets the context for advancing an alternative land use and transportation plan for Martin and St. Lucie Counties toward implementation. The next step is to receive endorsement of the vision statement and the Community Centers concept, either in their current or revised form, from the partner agencies within the study area, and then to produce a study newsletter for public consumption that articulates the findings, vision, strategies for making it happen.

Phase II of the project will focus on the implementation process from the perspective of the local government comprehensive plans and land development regulations, and will address the potential strategies to bring about the process of making land use changes at the site level. Such strategies will deal with managing concurrency (adequate public facilities), encouraging market responses, assembly of land and supporting development of the multi-modal transportation system. The cornerstone of this next phase of the study is the development of a demonstration project within the study area. This effort will include design and development standards, infrastructure and associated costs to fully develop a viable community center.

The Community Centers vision, with its emphasis on concentrating future residential and commercial development in a series of compact, mixed-use centers, would help sustain the local economy, expand travel choices and avoid building costly interchanges on US 1. By linking land uses and providing bicycle paths, buses and, perhaps in the future, trains, these community centers will reduce trip lengths and the number of intercounty trips and help to achieve goals for economic opportunity, personal mobility, community character and environmental preservation in the Treasure Coast region.

Table 4.1
Martin and St. Lucie County Regional Land Use Study
Comparison of Potential Implementation Measures

Implementation Measure	Primary Objective(s)	Primary Area of Application	Capital / Operating Cost to Implement	Admin. Effort	Private Sector Support	Potential Effectiveness	Notes
Changing the Land Use Pattern							
Establish mixed-use overlay areas (future land use and zoning)	maximize infill and redevelopment opportunities	Centers Redevelopment	Low	H	Required	Moderate	Gives developers a predictable framework for approval of specific uses and designs
Establish criteria for accelerated development approval for projects meeting design criteria	maximize infill and redevelopment opportunities	Centers Redevelopment Vacant	Low	M	Preferred	Moderate	Requires initial effort to draft and adopt guidelines. Creates an incentive for developers to build within specific areas
Establish impact fee waiver or reduction zones	maximize infill and redevelopment opportunities	Centers Redevelopment	Medium to High	M	Not Required	Moderate	Offers tangible incentive to developers to build within specific areas; reduces overall revenue stream for improvements
Offer density/intensity bonuses (Land Development Regulations: LDRs)	promote compact urban form in infill and redevelopment areas	Centers Redevelopment	Low	L	Preferred	Moderate	Offers tangible incentive to developers to build within specific areas
Reduce building setbacks through waivers or reductions (LDRs)	promote compact urban form and walkable areas with buildings closer to streets	Centers Redevelopment	Low	L	Preferred	Strong	Establishes clear design direction for sites. May conflict with drainage and sight distance at intersections
Establish architectural and sign guidelines unique to each sub-area for non-residential uses (LDRs)	provide for an orderly and aesthetically pleasing environment	Centers Redevelopment Vacant	Low	L	Preferred	Strong	Establishes clear design direction for sites so that non-residential areas are easier to navigate and more attractive
Revise parking standards to avoid large parking expanses and encourage pedestrian/transit connections on-site	promote compact urban form and with smaller parking areas	Centers	Low	L	Required (banks/dev. require adequate parking)	Strong	Creates walkable parking areas and reduces intra-site automobile movements

Table 4.1
Martin and St. Lucie County Regional Land Use Study
Comparison of Potential Implementation Measures

Implementation Measure	Primary Objective(s)	Primary Area of Application	Capital / Operating Cost to Implement	Admin. Effort	Private Sector Support	Potential Effectiveness	Notes
Reduce parking requirements for non-residential uses through waivers or reductions (LDRs)	promote compact urban form and with smaller parking areas	Centers	Low	L	Required	Moderate	Reduces development costs and impervious areas so that parking areas are smaller and sites are walkable
Create Tax Increment Districts to fund specific capital investments	promote specific areas for capital investments	Redevelopment	High	H	Required	Strong	Redirects private sector property tax revenue to pay for capital projects within specific areas
Establish tax deferral or abatement zones for certain types of development or job creation	encourage directed private investment	Redevelopment Centers	High	H	Required	Moderate	Offers tangible incentive to developers to develop specific types of projects within certain areas
Establish a jobs-to-housing ratio or threshold	encourage directed private investment	Centers Redevelopment Vacant	Low	L	Required	Strong	Limit the amount of new housing until more non-residential space is built
Invest in targeted areas by building government facilities (libraries, parks, schools, administrative centers)	promote private investment in nearby properties and stimulates economy	Centers Redevelopment	High	H	Required	Moderate	Encourages private investment in targeted areas
Prioritize capital projects for water, sewer and roads based upon service to targeted areas	promote private investment in nearby properties and stimulates economy	Centers Redevelopment	High	H	Preferred	Strong	Encourages private investment in targeted areas
Purchase properties with inconsistent zoning or future land use designations	promote private investment in nearby properties and stimulates economy	Redevelopment Vacant	High	H	Preferred	Strong	Encourages private investment in targeted areas by rezoning for appropriate and desirable uses
Purchase and assemble smaller parcels of land for re-sale in targeted areas	promote private investment in nearby properties and encourages redevelopment	Redevelopment Vacant	High	H	Preferred	Strong	Encourages private investment in targeted areas by reducing the number of property owners involved and increasing available parcel size

Table 4.1
Martin and St. Lucie County Regional Land Use Study
Comparison of Potential Implementation Measures

Implementation Measure	Primary Objective(s)	Primary Area of Application	Capital / Operating Cost to Implement	Admin. Effort	Private Sector Support	Potential Effectiveness	Notes
Create a Transit-Oriented Development District along identified future transit corridors	promote compact urban form and with higher density development, transit stops, pedestrian connections, and street furniture	Centers Redevelopment Vacant	Medium	H	Preferred	Strong	Encourages public transit investment in targeted areas by providing for higher densities and connections
Establish MSTU or infrastructure bank for small developers within a targeted area to pool their resources for large infrastructure investments	promote compact urban form and with higher density development and adequate infrastructure	Centers Redevelopment Vacant	Medium to High	M	Required	Moderate	Encourages public investment in targeted areas by providing for higher densities
Encourage shared parking between adjacent uses and projects (provide joint parking agreements that are easy to execute between owners)	promote compact urban form and with less parking	Centers Redevelopment Vacant	Low	H	Preferred	Strong	Reduces development costs and impervious areas so that parking areas are smaller and sites are walkable
Developing a Balanced Transportation System							
Set up Transportation Concurrency Exception Areas (TCEA)	Limit future road widening and promote alternative modes of travel	Centers Redevelopment	Low	L	Preferred	Moderate	Allows developers to build within existing downtowns and targeted infill areas by providing other transportation choices and waiving road concurrency
Create Multimodal Transportation Districts with easily accessible bike paths, sidewalks, and transit stops	Provide for an environment friendly to pedestrians, cyclists, and transit riders	Centers Redevelopment Corridors	Medium	M/H	Required	Moderate	Requires development of LOS standards for non-automobile modes to demonstrate capacity
Identify transit emphasis corridors to connect centers	Identify roadways or corridors that should be suitable for future transit investments	Centers Redevelopment Corridors	High	M	Preferred	Strong	Establishes an agreed upon set of LDRs and network of connections between points in the community

Table 4.1
Martin and St. Lucie County Regional Land Use Study
Comparison of Potential Implementation Measures

Implementation Measure	Primary Objective(s)	Primary Area of Application	Capital / Operating Cost to Implement	Admin. Effort	Private Sector Support	Potential Effectiveness	Notes
Lane reduction: reduce the number of existing lanes for selected roadways	Create a pedestrian and cyclist friendly environment instead of automobile through-way (through-trip corridor)	Centers Redevelopment Corridors	Medium	H	Required	Strong	Can be applied to state roads but requires administrative responsibility
Limit future road widening to a maximum of 4 lanes along identified roadways	Maintain and create a pedestrian orientation along existing roadway corridors	Centers Redevelopment	Low	H	Preferred	Moderate	Prevents road projects from becoming unwieldy and unsightly eyesores
Create multi-use trails for pedestrians and cyclists that connect centers	Establish a viable network of trails for recreation and commuting or errands	Centers Redevelopment	Medium	M/H	Required	Strong	Establishes an alternative to the automobile for accessing parks and other points in the community
Provide pedestrian and cyclist amenities in targeted areas, along roadways, and on multi-use trails	Create a pedestrian and cyclist friendly environment to promote alternative transportation modes	Centers Redevelopment	Medium	M	Preferred	Moderate	Increasing comfort and convenience of alternative modes of transportation within existing areas
Retrofit existing roadways to accommodate other users	Maintain and create a pedestrian orientation along existing roadway corridors	Centers Redevelopment	High	M	Preferred	Moderate	Creates an environment that is NOT exclusively automobile oriented
Construct 2-lane collector roads	Improve transportation system connectivity	Centers Redevelopment Corridors	Medium/High	M/H	Preferred	Strong	Traffic calming may be needed to allay complaints
Implement traffic calming measures	Change motorist behavior and reduce speed	Centers Redevelopment Corridors	L/M/H (varies)	M	Preferred	Strong	The implemented range of strategies depends on objective(s)
Build structured parking garages in targeted areas	promote private investment in nearby properties and stimulates economy	Centers Redevelopment	High	H	Preferred	Strong	Encourages private investment in targeted areas by providing more parking in compact area

APPENDIX A

PUBLIC INVOLVEMENT

REGIONAL LAND USE STUDY
PUBLIC MEETINGS, WORKSHOPS, ETC.

DATE	EVENT	LOCATION
November 8, 2000	Public Workshop	Stuart Rec. Center
November 9, 2000	Public Workshop	Port St. Lucie Community Center
December 9, 2000	Public Display	Treasure Coast Square Mall Jensen Beach
January 24, 2001	Real Estate Roundtable	TCRPC Offices, Stuart
February 20, 2001	Presentation/Briefing to City Officials*	City Hall, Port St. Lucie
March 8, 2001	Briefing to County Commissioners*	County Administration Building, Fort Pierce
March 16, 2001	Elected Officials Briefing	Howard Johnson's Restaurant, Stuart
March 16, 2001	County Staff Briefing	County Administration Building, Martin County
March 28, 2001	Public Workshop	Stuart Recreation Center
March 29, 2001	Public Workshop	Port St. Lucie Community Center
April 16, 2001	Martin County MPO*	County Administration Building, Martin County
April 25, 2001	Real Estate Roundtable	TCRPC Offices, Stuart
May 3, 2001	Briefing to St. Lucie County Chamber of Commerce Committee	Johnny's Restaurant, Port St Lucie
June 13, 2001	Port St. Lucie Area Council	In Port St. Lucie
August 29, 2001	Joint TAC Meeting	County Administration Building, Martin County
October 19, 2001	TCRPC Board and Elected Officials Briefing	Howard Johnson's Restaurant, Stuart
November 19, 2001	Port St. Lucie Community Redevelopment Agency	Port St. Lucie City Hall

*Paid for by Jurisdiction, outside scope of contract

Martin & St. Lucie County Regional Land Use Study

Prevailing development patterns in Martin and St. Lucie County have helped create a transportation system that is out of balance with land use. In recent years development has boomed west of Florida's Turnpike, near I-95 and along the western edge of the urban area, largely bypassing suitable vacant land or areas where re-development might occur in the eastern portion of the two counties. As development sprawls farther to the west, it strains public facilities, consumes open space and threatens the environment and natural resources. This spreading out of the population, further separating housing from places of work, results in a limited number of transportation choices and worsening traffic congestion on major roads. Studies show that the amount of cross-county automobile travel between St. Lucie and Martin County continues to increase, creating pressure for major, multi-million dollar construction on US 1.

There are alternatives. Instead of just building new and wider roads that often become congested after they are built, the region could make better use of its existing developed areas by encouraging a more compact, mixed use development pattern that expands transportation choices, revitalizes declining areas and provides a broader range of housing types and mobility options for all citizens.

The ***Regional Land Use Study*** is a multi-agency initiative designed to explore alternative growth management strategies. The study includes an inventory of vacant and redevelopable land, an evaluation of alternative land use and transportation scenarios, and a market analysis of land uses. A key part of the study is to recommend changes in local government comprehensive plans to implement the study findings.

Public Involvement

Citizen participation is a vital component in the planning process for the Regional Land Use Study. Get involved in shaping the future of the study area by joining the Plan Information Network, viewing project materials on the Internet and attending community workshops. You can share your ideas and concerns about development and transportation issues, and help shape the vision for growth in your community.

There will be a series of community workshops as well as roundtable discussions with real estate and development experts to gain insight into community values, develop and evaluate alternatives, and select a preferred vision for the study area's development. A series of presentations will explain the study purpose, findings, analysis results and recommendations. The study is expected to be complete by Fall 2001.

The Regional Land Use study boundary encompasses the urban service area of Martin and St. Lucie Counties, including the municipalities of Port St. Lucie, Fort Pierce, St. Lucie Village, Stuart, Jupiter Island, Town of Sewall's Point and Ocean Breeze Park. The southern boundary of the study area is south of Cove Road.

Please detach and mail

LAND USE & TRANSPORTATION SURVEY

Please share your thoughts about regional development and transportation issues and return this form to the address listed. Your input is important! Thank you.

1) In which city and zipcode do you live?

_____

2) In which city and zipcode do you and other household members work? (if applicable)

_____

3) Please rank the following issues in order of importance to you (1 to 9), with 1 being the most important.

___ Major highway improvements
___ Integrated network of trails, bike paths
___ Proximity of jobs to residences
___ Emergency evacuation routes
___ Mass transit, including buses and rail
___ Mixed use development (ie, mix of office, residential and retail)
___ Redevelopment of older, declining areas
___ Pedestrian-friendly development
___ Other (please describe):

_____

_____

If you want to be included in the Plan Information Network, or PIN, please complete:

Name: _____
Address: _____
City, State: _____
Zip Code: _____
Telephone: _____
Fax: _____
Email: _____
Affiliation: _____
(e.g., homeowner's association, civic group, etc.)

Place Stamp Here

Martin & St. Lucie County Regional Land Use Study
c/o Treasure Coast Regional Planning Council
301 East Ocean Boulevard
Suite 300
Stuart, Florida 34994

Martin & St. Lucie County Regional Land Use Study

Developing a land use and transportation plan that promotes sustainable development and expanded transportation choices.

Summary of Project Development Process:

Workshop 1: Identify priority issues and establish goals and evaluation measures for the study area

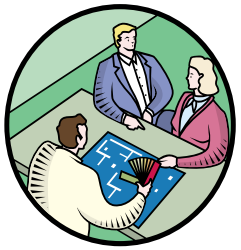
Workshop 2: review and comment on alternative land use-transportation visions that have been developed for the study area

Workshop 3: review findings & develop study recommendations; review the long-term costs & benefits of the various land use-transportation alternatives, and the strategies required for implementation.

Study Coordinator:

Treasure Coast Regional Planning Council
Contact: Mr. Terry Hess, AICP, Planning Director
Telephone: (561) 221-4060

A Project Steering Committee composed of representatives from the Agency Study Partners meets monthly to guide the study. In addition, the public will have numerous opportunities to provide input at key decision points in the study via a series of workshops, the Internet and public meetings.



Study Partners:

Treasure Coast Regional Planning Council
Martin County
St. Lucie County
City of Stuart
City of Port St. Lucie
City of Fort Pierce
Florida Department of Transportation, District 4
Florida Department of Community Affairs

Martin & St. Lucie County Regional Land Use Study

Regional Land Use Study

Implementing a Regional Vision for Integrating Land Use & Transportation

Bookmark this site for project updates and materials:
www.tcrpc.org

Treasure Coast Regional Planning Council
Martin County, St. Lucie County
Cities of Stuart, Port St. Lucie and Fort Pierce
Florida Department of Transportation
Florida Department of Community Affairs

Martin & St. Lucie County

Regional Land Use Study

Volume 1, Issue 1 November 2000

Regional Land Use Study Examines Development Patterns

The Treasure Coast Regional Planning Council (TCRPC), an organization whose mission is to address and define policy issues with impacts that extend beyond county and municipal boundaries, is the lead coordinating agency for a ***Regional Land Use Study for Martin and St. Lucie Counties***. This study is an effort to evaluate alternative land use and transportation options so that roadway widenings to US 1 in the two counties can be minimized or pehaps even avoided. This cooperative effort includes study partners from Martin and St. Lucie Counties, the cities of Stuart, Port St. Lucie and Fort Pierce, the Florida Department of Transportation (FDOT), the Department of Community Affairs, and the TCRPC.

BACKROUND

Land use and development patterns in the two-county, 180 square mile study area result in a large number of long cross-county trips, particularly in the peak hours of 7 - 9 AM and 4 - 6 PM weekdays, causing FDOT to recommend widending the roadway to 6- and 8-lane sections with overpasses at certain intersections. In addition, development potential in the area contributes to the belief that US 1 should be further widened.

THE STUDY

Consistent with the tenets of the Eastward Ho! Initiative in the region, the Regional Land Use Study seeks to provide a quantitative assessment of how alternative development patterns can create a more balanced transportation system with improved travel choices. With the help of the public, a community vision will be developed that will establish guidelines for future development, and direct growth in a manner that makes transportation options like walking, bicycling, and riding public transit more attractive for residents and visitors.

LAND USE STUDY *continued on page 3*

Project Study Area Map

Summary of Study Activities

- Develop and implement a public involvement plan
- Inventory vacant and redevelopable land
- Develop alternative visions for US 1 & the study area
- Evaluate land use and transportation scenarios
- Prepare new comprehensive plan and land development policies

Public Participation Key to Study Success

Smart Growth or Sprawl? You make the call.

By whatever name is in vogue, decisions will be made on future development patterns in Martin and St. Lucie County. Public input is critical to making sure those decisions meet community expectations for services, adequate facilities and neighborhood quality. New town centers, redevelopment, mixing land uses and other ways to manage growth will be important considerations in the **Regional Land Use Study**. Your input early in the process will help planners take your ideas and concerns into account and communicate them to public officials.

This includes making project data and materials available, helping you understand key assumptions, constraints and development options, and providing a chance throughout the study process to comment on interim work products and recommendations.

There will be many opportunities throughout the development of the study for you to become involved. A public involvement plan prepared for the study describes these activities. They start with community workshops scheduled for November 8th at the Flager Recreation Center in Stuart, and

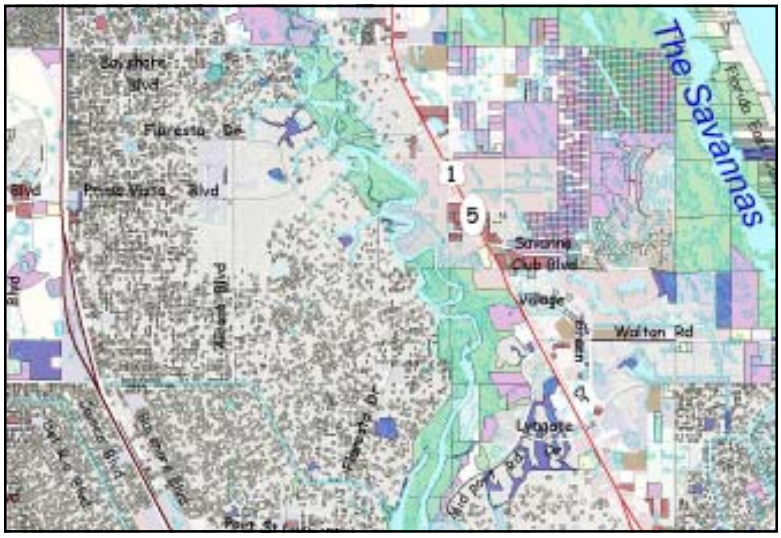
PUBLIC OUTREACH *continued on page 2*

LAND INVENTORY TO IDENTIFY DEVELOPMENT CAPACITY

Assessment of vacant land and redevelopment potential will guide alternatives

Travel through Martin County and St. Lucie County and it's hard to miss the vacant land, declining strip commercial buildings, car lots and older industrial areas along the US 1 Corridor, sprinkled among newer office buildings, shopping malls and subdivisions. Travel west toward the Turnpike, and the new shopping centers and subdivisions – many walled or gated – fill up the landscape. In the western and southern fringes of the urban area, mega-housing developments shoulder up to the Turnpike amid golf courses, acres of platted vacant lots and miles of curving residential streets.

It's called leap-frog development, and it is a pattern that has played out in countless communities across Florida and the nation during the post-World War II era. As highways improve accessibility to outlying areas, relatively cheaper land attracts new development, leaving older established areas with a declining tax base and aging infrastructure. The result is encroachment on environmentally sensitive lands, longer trips from home to work, increasingly congested travel conditions and a lack of viable travel choices, such as safe walking, bicycling and public transit.



Digital mapping of Property Appraiser and other land use data provide the foundation for analysis of vacant and redevelopable land in the study area.

Is it reasonable to think this scenario can change? Are there suitable areas for new development or redevelopment within the U.S. 1 corridor that could allow for mixed uses, moderate increases in density and a stronger pedestrian orientation?

The first step in understanding whether substantial re-investment in land within the U.S. 1 corridor is feasible is to identify vacant land suitable for development, and land with a strong potential for redevelopment. According to comprehensive plans, there is enough vacant land in Martin County, St. Lucie County and their municipalities to accommodate any foreseeable population growth. Unfortunately, much of the vacant land is either located in environmentally sensitive areas or it is far from existing utilities and services. Therefore, redevelopment of older commercial centers may prove to be an effective strategy to preserve community character as population increases.

Real estate prices are often more attractive along the suburban fringes – where community costs are high. This development pattern is expensive because governments must provide roads, fire, police, parks and utility services to a larger area. Governments are reluctant to place barriers on development because of private property rights concerns. Accordingly, the regional study identifies ways to redirect growth to existing built-up areas.

A key step is to identify vacant and redevelopable land in the study area using Property Appraisers data, aerial photographs, future land use and zoning classifications, and consulting with real estate professionals working in the area. Digital comparisons of land use data will be made, with maps created for analysis. The information is sorted to identify environmentally sensitive land and areas with a high development potential. Various land characteristics are identified as indicators of development potential. Each characteristic is weighted by its relative importance to real estate developers.

This portion of the study will catalogue the development potential of the study area to give local governments a better understanding about their ability to redirect growth into built locations through land use and transportation policies and/or programs. The potential benefit is preservation of environmentally sensitive land and a more compact development pattern that encourages shorter trips.

As the study nears its conclusion, the evaluation of development potential will also include an assessment of market factors, an analysis of the long-term costs and benefits of alternative land use and transportation visions, and how local government comprehensive plans will need to be changed to reflect the preferred future development scenario.

Public meetings provide a forum for citizens to provide input and help to shape the community's future vision for development.

***PUBLIC OUTREACH** continued from page 1*

November 9th at the Port St. Lucie Community Center. These workshops will provide an opportunity for the community to define key issues that will serve as study objectives and evaluation measures.

Specific public outreach activities include creation of a Plan Information Network (PIN) (see article on page 4), a project brochure, newsletters, media briefings and news releases, a web site (www.tcrpc.org), discussions with real estate professionals and public meetings and presentations. All activities will seek to maximize public participation *throughout* the study. Please take the time to get informed and participate. Your community's future depends on it.

Martin and St. Lucie County Develop Long Range Transportation Plans

The future of transportation systems in the Region is under consideration as both St. Lucie and Martin County undertake efforts to update their respective Long Range Transportation Plans (LRTP). The LRTPs, which are federally required for all urban areas, set a 25-year blueprint for transportation projects based on anticipated funding levels. The Metropolitan Planning Organization (MPO) of each county* oversees development of the LRTPs, as well as all other regionally significant transportation planning activities. Elected officials from the county and its municipalities lead each of the two MPOs and vote to adopt the LRTP.

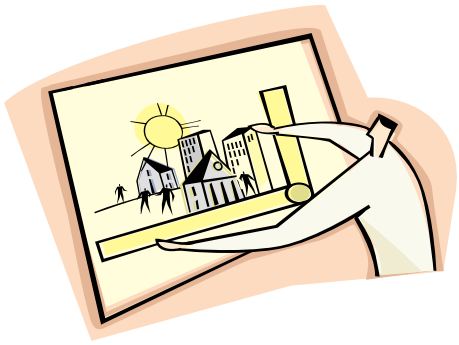
What are the key transportation issues in Martin and St. Lucie County? What mix of capital improvements and strategies will best address those issues? How will the improvements be funded? These are all questions that will be answered in the two LRTPs.

In Martin County, the MPO is currently evaluating the benefits of five different combinations, or alternatives, of improvements that vary from a full package of new roads, road extensions and widening projects to a more transit-oriented system that includes light rail within the FEC rail line and bus service within six geographic zones in the county.

The St. Lucie MPO is undergoing a similar process, ranking important road projects and determining how and at what level to implement fixed route public transit service in the county.

Of particular importance are projects that facilitate transportation linkages between the two counties. The proposed Western Corridor, US 1 capacity and signal system improvements, fixed route bus service on US 1, light rail transit and Tri-Rail service are all projects that have received joint consideration by the MPOs. However, without carefully addressing land use to create a more transit-supportive development pattern, public transit service initiatives will have difficulty ever being truly effective. That is a key objective of the ***Regional Land Use Study***. Depending on the outcome of the Study, its recommendations may require amendment of the MPO Long Range Transportation Plans, as well as the local government Comprehensive Plans that govern future land use and various forms of infrastructure.

To meet federal deadlines, both LRTPs are scheduled for adoption by the end of this year. For more information, contact Cheri Fitzgerald of the St. Lucie MPO at (561) 462-1576 and Mark Mathes of the Martin County MPO at (561) 288-5485.



LAND USE STUDY *continued from page 1*

WHAT'S NEXT?

The study began this summer and is well underway. The first goal of the public workshops is to get public input on key values, issues and ideas for the development of alternatives.

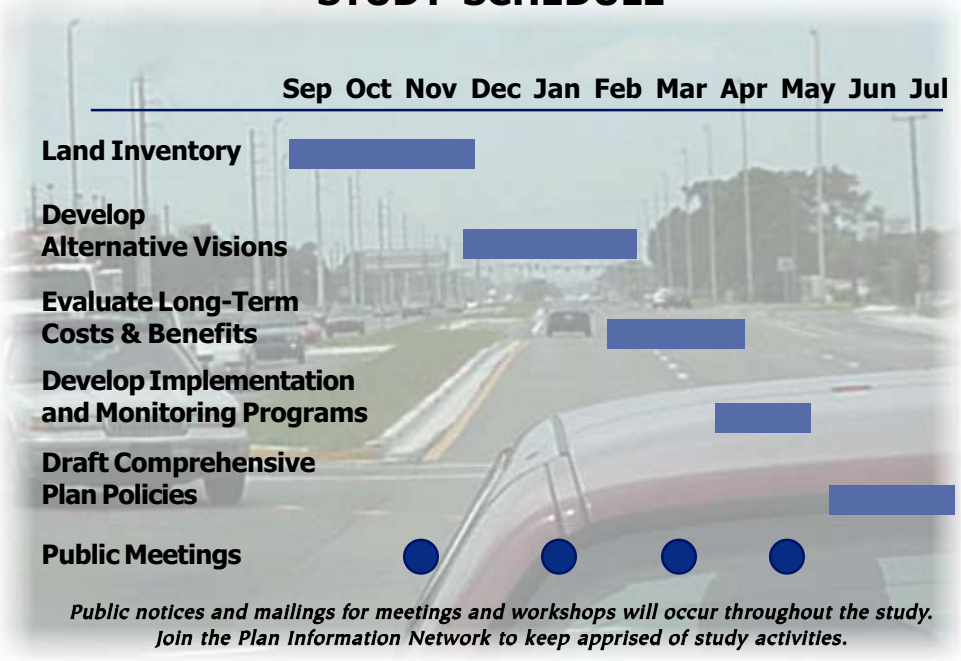
The project is expected to be completed by June 2001. Upon completion of the study, a community vision for the region will be selected. Then, Comprehensive Plan and land development code changes will be identified so that development may occur in a manner that is consistent with the study recommendations.

** Located within the Community Development and Growth Management Departments of St. Lucie County and Martin County, respectively.*

Most of the transportation evaluation to take place in the ***Regional Land Use Study*** over the next several months will focus on what options can be considered as alternatives to further widening of existing roads, including US 1. Strategies will focus on alternative land use patterns that help to reduce the number of long cross-county trips and create opportunities for expanding public transit through buses or rail.

Throughout most of Martin and St. Lucie Counties, US 1 is a heavily traveled and often-congested 4 to 8 lane highway. Current traffic count data shows that 25,000 to 40,000 cars travel the corridor daily, much of it in congested, stop-and-go conditions. Traffic is projected to double in volume by the year 2020.

STUDY SCHEDULE



Public notices and mailings for meetings and workshops will occur throughout the study. Join the Plan Information Network to keep apprised of study activities.

Project Steering Committee Members

Treasure Coast Regional Planning Council

Martin County

St. Lucie County

City of Stuart

City of Port St. Lucie

City of Fort Pierce

Florida Department of Transportation, District IV

YOU'RE INVITED!

Regional Land Use Study Public Workshops:

Nov. 8 - Flager Recreation Center, downtown Stuart
Nov. 9 - Port St. Lucie Community Center
7 - 9 PM

Attend the meeting most convenient for you - topics and format will be the same. Call 561-221-4060 for details or directions

Treasure Coast Regional Planning Council

Contact:
Mr. Terry L. Hess, AICP
Planning Director
(561) 221-4060
301 East Ocean Boulevard
Suite 300
Stuart, Florida 34994

Visit the project web site:
www.tcrpc.org

STAMP

Join the Plan Information Network (PIN) and Get Involved

Citizen participation is an integral part of the planning process for the ***Regional Land Use Study***. To better involve all segments of the community, a **Plan Information Network (PIN)** is being developed which consists of a wide array of community interest groups, organizations and agencies, from homeowners associations to business groups and environmental interests.

Members of the **PIN** serve as liaisons between their organizations and the study staff and consultants, helping to establish and maintain a dialogue throughout the project. **PIN** members are encouraged to attend public meetings held during the study period through spring of 2001, and to communicate frequently with other members in their organization or group.

The ***Martin and St. Lucie County Regional Land Use Study*** needs your input. Get involved in shaping the future of the study area by joining the **Plan Information Network** and attending community workshops. You can share your ideas and concerns about development and transportation issues, and help shape the vision for growth and development in your community.

Send a completed form to the Regional Land Use Study Team, c/o Renaissance Planning Group, 3165 McCrory Place, Suite 185, Orlando, Florida 32803; or via telephone at (407) 893-8175, ext. 14; or via fax at (407) 893-4988; or send an email to dschultz@CitiesThatWork.com.

Plan Information Network (PIN)

Name _____
Affiliation or neighborhood:
_____
Address _____
_____
_____
Phone _____
Fax _____
E-mail _____

Thanks! The PIN will play a very important role in the study process by providing needed input at key points in the project and by sharing study progress and findings.

Martin & St. Lucie Counties

Regional Land Use Study

Issue 2 November 2001

A Multi-Agency Project For Integrated Land Use And Transportation Planning

STUDY RECOMMENDS COMMUNITY CENTERS

Over the next 25 years, local governments should concentrate future residential and commercial development in special zones dispersed throughout a large part of St. Lucie and Martin Counties to boost the local economy, expand travel choices and avoid building costly interchanges on US 1. These "community centers" would include a mix of apartments, retail stores and offices to serve nearby areas. Bicycle paths, buses and, perhaps in the distant future, trains would connect centers to each other and to other parts of the region and state.

That is the main recommendation of the *Regional Land Use Study for Martin and St. Lucie Counties*, a project coordinated by the Treasure Coast Regional Planning Council and jointly funded by local and state agencies. Other recommendations are to build a select few new roads, such as the West Virginia Corridor in Port St. Lucie, and expand public transportation services, particularly north-south along US 1, to better connect future community centers and reduce traffic congestion.

The study found that traffic congestion between the two counties would be significantly lower by dispersing development in clusters located throughout the 180-square mile area. With the creation of multiple town centers, future residents will enjoy shorter trip distances, improved public transportation service, less road congestion and more opportunities to walk to meet some needs. The study indicates that building two new interchanges on US 1 at Jensen Beach Boulevard and Port St. Lucie Boulevard, as recommended by the Florida Department of Transportation at a projected cost of $80 million, would not be needed under the Community Centers plan.

FINDINGS *continued on page 2*

Also in this Issue:

Why Community Centers?.....2
Transportation Findings.....3
The Future of US 1 Flyovers...5
Land Inventory Analysis.....6

REGIONAL LAND USE STUDY VISION STATEMENT

The vision for the study area is to:

Establish geographically dispersed compact, mixed-use activity centers that provide for a better jobs-housing balance through complementary land uses in closer proximity to residential areas.

The intent of creating such activity centers is to preserve environmentally sensitive areas and agricultural resources, and reduce the number of inter-county automobile trips and length of trips through expanded travel choices for residents and employees.

In support of these activity centers, the region will:

- Develop US 1 as a multi-modal transportation corridor through quality redevelopment and new development that features transit-supportive and pedestrian-friendly site design and amenities;
- Define the scale and develop design guidelines for mixed-use centers that reflect market demand and local character;
- Invest in public transportation strategies that reduce dependence on automobile travel between activity centers in St. Lucie and Martin Counties by providing accessible and convenient premium transit service linking key origins and destinations;
- Create an integrated network of roadways, greenways and bicycle/pedestrian facilities that improve connectivity and accessibility throughout the region, and
- Monitor land use and transportation trends to track the effectiveness of the Community Centers vision in meeting the area's livability and mobility objectives.

Study Partners

The following organizations provided financial support, technical assistance or policy guidance for the Regional Land Use Study:

Treasure Coast Regional Planning Council
Martin County
St. Lucie County
City of Stuart
City of Port St. Lucie
City of Fort Pierce
Florida Department of Transportation District Four
Florida Department of Community Affairs

For additional information regarding this project, please contact the study coordinator:

Mr. Terry Hess, AICP
Planning Director
Treasure Coast Regional Planning Council
301 East Ocean Blvd., Suite 300
Stuart, Florida 34994
(561) 221-4060

Visit the project web site:
www.tcrpc.org

Project Consultant:

Renaissance Planning Group
Orlando, Florida
www.citiesthatwork.com

Why Community Centers?

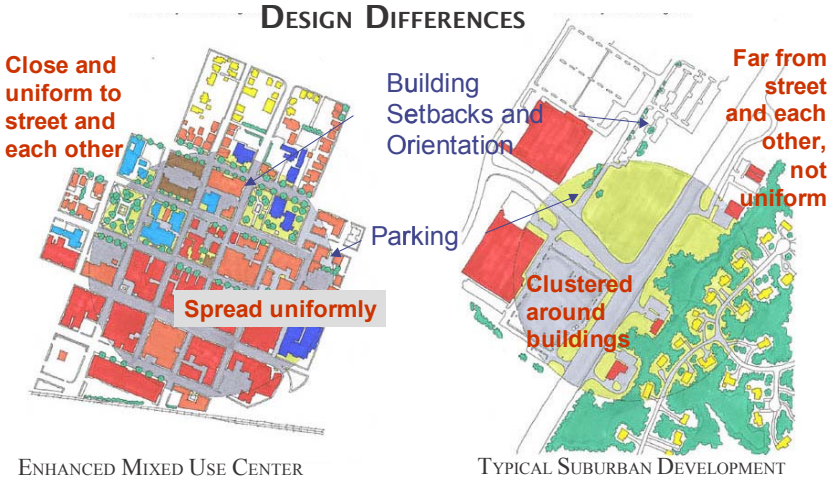
Land use has a profound influence on the transportation system. A dispersed, low-density development pattern, segregated into areas of single-use development with large parking lots or wide roadways as barriers, limits travel choices and forces near absolute reliance on the personal auto for transportation.

Transportation costs under such a development pattern can be staggering, particularly with right-of-way acquisition. In the case of Martin and St. Lucie Counties, most commercial development is along US 1, and much of the area's employment, particularly higher paying jobs, is in Martin County. As a result, traffic congestion continues to overburden the area's limited roadway network and solutions point to building more roads and constructing interchanges on US 1.

While some new roads are needed, the Regional Land Use Study is recommending the development of Community or Town Centers to help change the area's travel patterns to shorten trip lengths, reduce future roadway construction costs and lower the demands for new public services in undeveloped areas. The centers

CENTERS *continued on page 3*

Design Differences



Enhanced Mixed Use Center — Typical Suburban Development

FINDINGS *continued from page 1*

While US 1 will continue to carry more than 60,000 cars per day, under the recommended plan the road would have the fewest miles of congestion. Traffic delays would be less severe.

The Community Centers should be carefully designed to ensure building proximity and a walkable environment, and could occur as redevelopment of older strip commercial buildings along US 1, or new construction in undeveloped areas within the urban services boundaries of each county. The study tallied the amount and location of vacant lots where new development will occur through 2025, and also identified areas in the two counties where redevelopment is more likely. Much of the growth potential is in Port St. Lucie, a community with tens of thousands of small platted lots for homes, but with few large employment or retail centers. Creating such centers helps reduce inter-county trips and expand economic opportunity for residents and local governments.

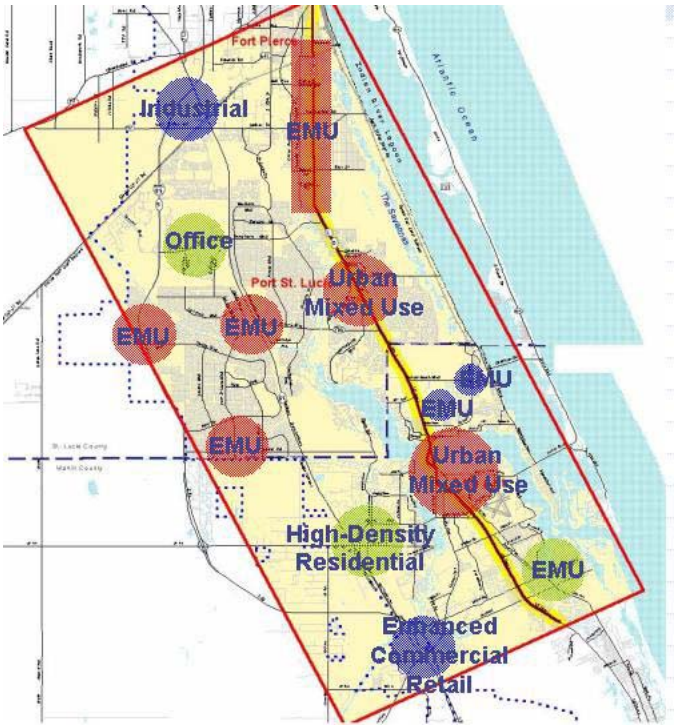
***CENTERS** continued from page 2*

would serve as focal points for surrounding neighborhoods and communities where commercial, civic, recreational, higher density residential or employment activities take place. Centers should be well-connected to adjacent developments via local streets, pedestrian and bicycle paths and, where feasible, local bus service.

To reduce trip-making, town centers should be established at key locations throughout the area to serve the market of surrounding homes. For example, one or possibly two new town centers will be needed at the western edge of the urban boundary near I-95 to reduce the number of automobile trips going east to US 1 and south from St. Lucie County into Martin County. Other centers should include redevelopment of older buildings along US 1 to create new mixed-use town centers.

In contrast to a typical suburban-style development that includes a cluster of storefronts and drive-through buildings separated by a large parking lot, the mixed-use town centers should contain the following elements:

- A mix of uses including residential, retail and office;
- An interconnected local street system consisting of multiple streets within a quarter-mile area;
- Use of on-street parking and/or common (shared) parking areas to encourage building proximity;
- Sidewalks on all streets and well-defined pedestrian crossings;
- Transit infrastructure (shelters, signs and benches)
- Minimal setbacks between buildings and the street or between buildings, and
- Usable public open space rather than just for stormwater retention.



EMU = Enhanced Mixed Use

This map shows the general location of various types of "community centers" that were evaluated in the Regional Land Use Study, and recommended as the best approach to manage future population growth in the region. Priority centers are those identified along US 1 and in the Port St. Lucie area.

Creation of mixed-use development nodes can boost the local economy. The development pattern often increases property values through design standards and by making more efficient use of the land. By offering a diversity of land uses, clustered development patterns also enhance the local tax base.

For effective town centers, pedestrian-scale street and building design must be supported by an interconnected local street pattern that reflects the character of the surrounding community. Well-defined centers are an antidote to sprawl.

Transportation Findings Support Community Centers Vision

Clustering development into well-defined town centers results in less traffic congestion and enables creation of a more balanced transportation system, potentially saving taxpayers millions of dollars in road construction funds, according to the transportation evaluation completed for the Regional Land Use Study.

The Community Centers vision compares favorably with the existing suburban development pattern of low-density housing and shopping malls, resulting in fewer miles of congestion on US 1 and other major roadways. The level of congestion on US 1 between Fort Pierce and Stuart drops by 14 percent with the Community Centers vision when compared with the adopted long-range transportation plans for the Martin and St. Lucie Metropolitan Planning Organizations (MPOs). Total vehicle miles of travel and automobile emissions are also lower.

The Community Centers alternative accomplishes those results with fewer new or widened roadways than assumed in the transportation plans adopted by the two counties. While significant traffic congestion will continue to exist under the Community Centers vision, the overall performance of the transportation system is better, with fewer hours of delay and fewer road-widening projects. Funds not needed for some

***TRANSPORTATION** continued on Page 4*

TRANSPORTATION *continued from page 3*

roadway projects could be shifted to improve the area's public transportation system, such as creating a system of fixed bus routes or establishing a connection with Tri-Rail or Amtrak to serve the area with passenger rail service.

The lower congestion levels with fewer road widening projects result primarily from three influences: shorter trips to work or from home to the grocery store, more trips made by walking in places where different activities take place and buildings are located closer together, and creation of a more balanced transportation network. With Community Centers located at strategic places in Martin and St. Lucie Counties, fewer people will have to drive to US 1 or from St. Lucie County into Martin County for work or shopping trips. Traffic delays, vehicle miles of travel and fuel consumption all decline under the Community Centers alternative. Furthermore, using research of travel patterns in communities with well-defined mixed-use town centers versus typical suburban areas, certain kinds of trips, such as from an office to a restaurant or home to work, are more likely to be made by walking instead of driving a car.

The transportation analysis also found that a balanced transportation system is needed for the Community Centers vision to work. First, it means the region must build more interconnecting roadways to reduce traffic pressure on a few key roads like Port St. Lucie Boulevard and US 1. The West Virginia Corridor in Port St. Lucie, the Western Corridor and Green River Parkway in Martin County, for example, are needed to support the creation of new Community Centers. These and other interconnecting roadways are effective in reducing traffic congestion levels, although other roads, like Midway and Cove Roads, will need to be widened by 2025. See related article on page 5 about how the Community Centers vision addresses the proposed US 1 interchanges at Port St. Lucie and Jensen Beach Boulevards.

Illustration of a busway on State Road 24, as adopted in the Gainesville (FL) Long Range Transportation Plan. A similar concept is proposed for US 1 between St. Lucie and Martin Counties.

Second, the Community Centers vision includes a stronger role for public transportation to meet mobility needs. To be effective, transit service must be reasonably direct and frequent enough to compete with other travel choices. Inter-county transit service, such as a dedicated lane for buses within the US 1 corridor, and establishment of a few fixed bus routes along major roadways to link town or community centers is needed to support the alternative. The creation of distinct and interconnected town centers at key places in the study area is a key ingredient for effective public transportation service in the region, enabling the viability of rail service to other South Florida counties in the future.

The total transportation cost for the Community Centers alternative, including public transportation projects, is $615 million. This is about 40 percent of the cost of the adopted MPO transportation plans with greater mobility benefits.

Developing US 1 as a Multi-modal Corridor

In support of the redevelopment plans and creation of a new downtown in Port St. Lucie within the US 1 corridor, a seamless public transportation system is needed to link the two counties and town centers along US 1. Beyond just operating bus service, adjacent land uses need to evolve in a way that provides an improved pedestrian and bicycling environment to increase support for public transportation investments. This requires attention to building and street design, transit infrastructure such as bus shelters and visible pedestrian connections, and an increasing diversity of land uses along the corridor. Ultimately, steps should be made to provide premium transit service in the US 1 corridor. The region should work toward the long-term objective of developing a dedicated lane for buses within the US 1 right-of-way, and initiating rail service linking the area with other South Florida counties.

Short-term (1-5 years) strategies for US 1 include:

- Initiate fixed route bus service
- Establish Multi-modal Transportation Districts for concurrency management
- With redevelopment, construct non-auto facilities and amenities
- Develop mixed-use zones with transit-oriented design guidelines.

Longer term strategies for supporting rail and bus service are described in the final report.

Regional Land Use Study Examines Need for US 1 Flyover Ramps

A major reason for initiating the Regional Land Use Study was to evaluate whether changes in the land development patterns of the region could help avert the projected need to construct major highway capacity projects on US 1 through the study area. The Florida Department of Transportation identified the need for construction of interchange ramps at the intersections of US 1 at Jensen Beach Boulevard and Port St. Lucie Boulevard.

A recent DOT study concluded that the flyovers are needed to keep pace with projected traffic growth in the next 20 years as a result of population growth and a continuation of current travel patterns that contribute to ever-increasing traffic moving between the two counties.

Among the alternatives, only the Community Centers land use scenario demonstrated it could eliminate the need to construct the flyover ramps on US 1.

Indeed, traffic volumes on US 1 are projected to exceed 100,000 cars per day at Jensen Beach Boulevard by the year 2025, which threatens to exceed the capacity of the roadway to handle traffic from its east-west feeder roadways. The estimated cost for the two interchanges is about $80 million, a prohibitive amount based on existing financial resources. Local elected officials and staff have expressed a reluctance to endorse these kinds of costly and physically imposing modifications to the intersections on US 1.

Diagram of proposed overpass at the intersection of Port St. Lucie Blvd. and US 1.

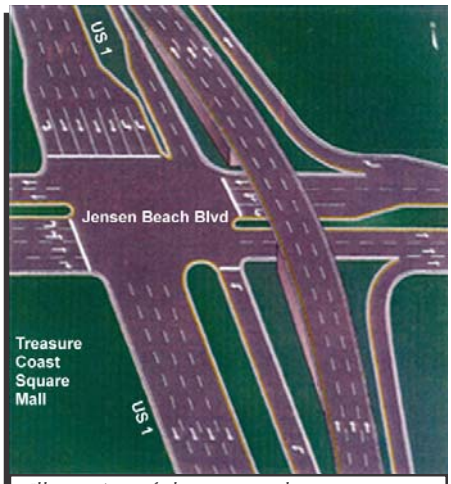


Illustration of the proposed overpass at the intersection of Jensen Beach Blvd. and US 1.

In assessing whether major changes in future development patterns – one of the chief determinants of travel behavior – could affect the need for the US 1 flyovers, the Regional Land Use Study entailed a technical analysis of three integrated land use and transportation scenarios. The scenarios included a continuation of existing land use trends with the road projects in the adopted long range transportation plans of both counties, investing heavily in public transportation and transit-orietned development within the US 1 corridor, and creating several community or town centers spread throughout the study area. Each scenario produced a traffic forecast for 2025, which was used to assess the need for building flyover ramps at the two US 1 intersections.

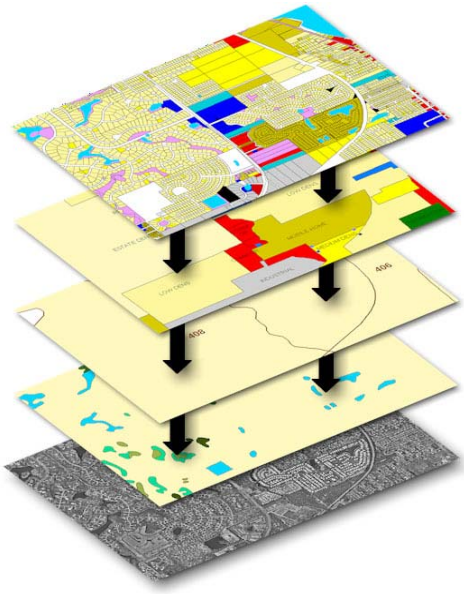
Unique among the alternatives, the Community Centers land use scenario, if implemented as envisioned, demonstrated that it could reduce the need to construct the flyover ramps on US 1 at Jensen Beach and Port St. Lucie Boulevards. The alternative resulted in substantially lower numbers of conflicting turns at the intersections and a reduction in vehicle trips within the US 1 corridor to the point where grade separation of those two intersections would not be necessary in the year 2025.

The Community Centers scenario does not result in an elimination of all traffic congestion on US 1 or elsewhere. In fact, some segments of US 1 and other roadways will still need to be widened to handle traffic growth even with creation of the community centers. Rather, the Community Centers vision creates a more balanced transportation system built upon strategic road construction projects that increase connectivity, expand the existing public transportation network and provide greater accessibility for pedestrians and bicyclists at logical community gathering points.

Land Use Inventory Yields Insights into Patterns of Development

Urban Service Area Analysis

One of the initial tasks of the Regional Land Use Study was to evaluate whether there is sufficient vacant and redevelopable land within the urban service area to accommodate projected population and employment growth. The Martin County and St. Lucie Metropolitan Planning Organizations (MPOs) have projected that study area population will climb to more than 360,000 persons by the year 2025 and employment will reach nearly 125,000. The MPOs' socioeconomic data projections have been used to determine whether the urban service area should be expanded and to identify the criteria for evaluating future requests to expand the urban service area. The land inventory involved the identification of vacant lands, environmentally sensitive lands and properties that were considered to be redevelopable within the study area. The starting point for the vacant and redevelopable land inventory was parcel level data and maps. A geographic information system (GIS) software platform was used to efficiently identify vacant, environmentally sensitive and redevelopable land.



The analysis indicates that that there are about 48,000 acres of developable vacant land and 9,000 acres of redevelopable land in the study area, or just over 70 percent of the total land area. Much of the vacant land is classified as agricultural, residential or conservation. If current suburban development patterns continue, the vacant land analysis indicates there will not be enough land to accommodate the anticipated growth in the next 25 years.

However, if future land development patterns are clustered consistent with the recommended Community Centers vision, the capacity of vacant and redevelopable land meets or exceeds the 2025 total projected population and employment estimates. Thus, it may not be necessary to expand the urban service area with the Community Centers development pattern.

Implementation and Monitoring Program Needed to Achieve Vision

Is the vision for community centers in the St. Lucie County - Martin County region practical? Would it require, in the words of one elected official, use of a nuclear bomb to change the development pattern into one that better supports a range of choices for housing, location of the workplace and travel?

While the challenge to change development patterns is daunting, communities like Fort Pierce and Stuart have used various strategies, from capital investments to revising land development codes, to add economic value and enhance community character.

One thing area local governments would have to change is how they monitor the performance of the transportation system. Current measures that count the number of cars and measure delay at intersections to determine whether a new development project can be approved should be reconsidered. Instead of that narrow view of the adequacy of the transportation system, local governments should introduce building, parking lot and street design elements, as well as non-auto transportation facilities and services, into the site plan and concurrency review process.

Another proposed change would be to dramatically improve interagency coordination and consistency in growth policies and strategies. Local governments must coordinate resources and strategies in an organized way to influence the market demand for development. The Community Centers alternative reflects market demand in many respects, but the clustering of a mix of land uses requires land acquisition, stormwater master plans and improved connectivity - all potentially costly measures. Much of this coordination should take place through routine joint meetings of the St. Lucie and Martin County MPOs.

Another recommendation is to create an annual monitoring report that tracks trends in development and the transportation system to measure progress toward achieving the Community Centers vision.

Phase II to Focus on Implementation

Regional Land Use Study

Translating Community Centers from Concept into Practice

The next phase of the Regional Land Use Study will address ways to begin changing development patterns to support the Community Centers alternative. This entails reviewing local government comprehensive plans and land development codes – the documents that guide who can build what and where – and recommending changes to encourage more compact, mixed-use developments designed to promote travel choices and economic vitality. Strategies will likely include a combination of policies, programs and capital projects to stimulate the market for redevelopment and compliance with desired physical design characteristics of the centers.

A key task in phase two is to complete a demonstration project for an actual site in the study area. The idea is to examine a particular area and provide a site analysis to create a community center design, as recommended in the first phase of the study. By working through the process of creating the desired development concept for an actual site, the demonstration project will serve as a useful guide to communities in the area.

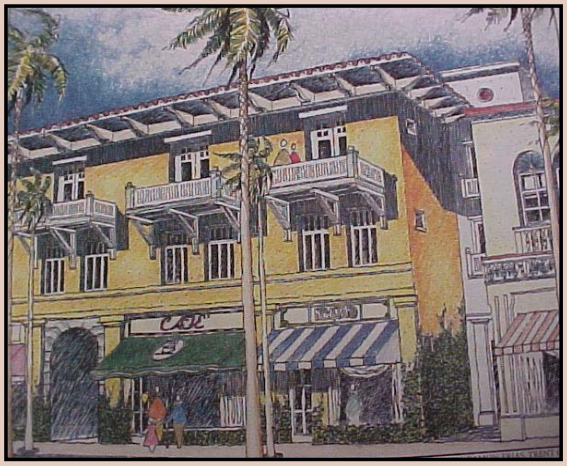
Efforts are underway to select the site for the demonstration project, and work is expected to begin soon. The Treasure Coast Regional Planning Council will serve as administrator of the project, coordinating the consultant's work on Phase Two with the same Steering Committee members involved in the first phase of the Regional Land Use Study.

This phase will also include establishment of a monitoring program. The monitoring program will include an annual report summarizing land use and transportation trends in the study area and will be designed to reflect changes occurring over time compared with existing conditions. It will be important for the monitoring report to not only focus on numerical changes, but on the effectiveness of a capital project or whether a particular land use change contributes to the regional land use vision.

This second phase of the Regional Land Use Study is funded by a grant awarded to Martin County by the Federal Highway Administration. The grant aims to investigate the relationships between transportation, community development and private sector-based initiatives. Grants are awarded to plan and implement strategies that improve the efficiency of the transportation system; reduce environmental impacts of transportation; reduce the need for costly future public infrastructure investments; ensure efficient access to jobs, services, and centers of trade; and examine private sector development patterns and investments that support these goals.

A demonstration project to be completed in the federally-funded Phase II of the Regional Land Use Study will examine the transformation of an existing part of the study area into a site plan for a mixed-use community center. With support from local government staff, the project will include:

- Site development master plan
- Street layout, parking locations and transit infrastructure
- Development guidelines
- Pedestrian ways and street design standards
- Cost analysis, and
- An implementation plan and schedule.



Martin and St. Lucie Counties Regional Land Use Study

The Treasure Coast Regional Planning Council (TCRPC), an organization whose mission is to address and define policy issues with impacts that extend beyond county and municipal boundaries, is the lead coordinating agency for the ***Regional Land Use Study.*** The project is a multi-agency initiative designed to explore alternative growth management strategies for a 180-square mile area in Martin and St. Lucie Counties. The study evaluates alternative land use and transportation options to determine whether major expansion to US 1 in the two counties can be minimized or avoided. A key part of the study includes recommended changes in local government plans, capital projects and development regulations to address study findings. This newsletter summarizes those findings.

Treasure Coast
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Regional Land Use Study

Regional Land Use Study

Growth and Transportation Challenges Subject of Community Workshops

By Whit Blanton

When Lee and Catherine Griffis began planning a move to the Treasure Coast area from Kendall in Miami-Dade County last year, the "empty nest" couple looked for homes in Palm City, Hobe Sound and Stuart. They settled in Port St. Lucie instead.

"There was a $10,000-20,000 difference" in prices for comparable lots, explained Lee Griffis. "It was an economic decision."

They came to the area because of a job opportunity in Port St. Lucie, but six months after moving into the area, the couple is now retired and renting until they build a new home in the same area. For the most part, he likes what they have found living east of US 1 in St. Lucie County – a quiet semi-rural area, surrounded by nature and only 15 minutes to the beach or major metropolitan amenities. "We haven't fallen in love with everything, but the area has almost all the conveniences of a larger area within a short drive."

What haven't they fallen in love with? "The area lacks a sense of community," Griffis states. "Maybe it's the area we live in or the fact we're renting, but you really have to seek it out." He observes that government has scattered services out further to the west to meet the needs of growth, and laments a lack of commercial development east of US 1. "Not even a convenience store," he says. "Everything is single-family residential, and it's a 3-5 mile drive to get to a 7-11." Griffis said he would like to see more blending of commercial with residential land uses, as long as uses could be compatible. "It would need to be attractive."

He and his wife would like to have a grocery or something close enough to walk. "At our age," Griffis states, "we're getting more and more conscious of getting some kind of exercise."

The Griffis' may or may not be representative of residents elsewhere in St. Lucie County or in Martin County. The point is that it is a diverse, growing region. Less than half of the land in the two-county area being studied for the Treasure Coast Regional Planning Council's Regional Land Use Study is developed. Estimates are that more than 500,000 people will call Martin and St. Lucie Counties home by 2025, an increase of more than 200,000. The region is half a billion dollars short of its projected highway needs and some roads planned for widening will continue to fail in the future. Walking, bicycling and using public transportation are not viable travel options for most residents.

Each community in the area has different challenges and needs – with Port St. Lucie it is the 80 square miles of small platted lots; in Stuart and Martin County, it is protection of wetland areas and a lack of affordable housing. What all the communities share is a problem with transportation and managing coming growth, whether it's people like the Griffis' relocating from South Florida or young families looking for their first home.

The purpose of the Regional Land Use Study is to identify how changes in development patterns and land use characteristics can help address transportation problems. Citizens met with study planners in Stuart and Port St. Lucie in late March to help develop and evaluate alternatives for future development in the area. The consultants are using the results of those meeting activities to refine alternative future land use scenarios and develop supporting transportation options. Please take part in helping to create the future of Martin and St. Lucie Counties.

Whit Blanton is vice president of Renaissance Planning Group in Orlando, the consulting firm hired by the Treasure Coast Regional Planning Council to conduct the Regional Land Use Study.

- 30 -

Public Meetings

Regional Land Use Study

Martin and St. Lucie Counties

Project Update

Treasure Coast Regional Planning Council
561.221.4060
thess@tcrpc.org

Where Can We Walk?

Where Can We Drive?

Where Can We Build?

We need your ideas on options to consider. Join us at one of the Interactive Workshops -

Wednesday

March 28

Stuart Recreation Center

201 SW Flagler Avenue

7-9 p.m.

OR

Thursday

March 29

Port. St. Lucie Community Center

2195 SE Airoso Boulevard

7-9 p.m.

Regional Land Use Study

Martin & St. Lucie Counties Study Examines Development Patterns

- What will future development look like in Martin & St. Lucie Counties?
- Will the patterns of development support pedestrian friendly town centers?
- How and where will growth be directed?
- Should roads be widened or overpasses built to accommodate more traffic?
- Will there be alternative means of transportation such as new bus service or rail service?

The study will focus on:

- Integrating land use and transportation
- Guidelines for future development and redevelopment
- Defining policy issues for the Region – across county and city boundaries

Public Involvement is Vital to Creating a Community Vision

- Public workshops offer upcoming opportunities to participate in planning the future of the region
- Recommendations from workshops and surveys become part of the process of updating the Long Range Transportation Plans
- To find out how to voice your comments or participate in workshops contact the Treasure Coast Regional Planning Council at the location below.

Project Steering Committee Members:

Treasure Coast Regional Planning Council
Martin County
St. Lucie County
City of Stuart
City of Port St. Lucie
City of Fort Pierce
Florida Department of Transportation, District IV

Treasure Coast Regional Planning Council

Contact:
Mr. Terry L. Hess, AICP Planning Director
(561) 221-4060
301 East Ocean Boulevard
Suite 300
Stuart, Florida 34994

Visit the project web site:www.tcrpc.org

Regional Land Use Study

Treasure Coast Regional Planning Council Sponsors Public Workshops

How can future development occur in Martin and St. Lucie County in a manner that improves travel choices, reduces the number of long, cross-county work trips, and prevents the need for continued major expansion of US 1? The Martin and St. Lucie County Regional Land Use Study, coordinated by the Treasure Coast Regional Planning Council, will answer that question through a year-long planning project that will examine existing and future land use patterns to identify and evaluate alternative visions for the area's development. The study will focus on development patterns within the US 1 corridor but will also explore ways to create more compact and sustainable development within the urban service areas of both counties from Fort Pierce to Stuart. Study partners include the cities of Stuart, Port St. Lucie, Fort Pierce, St. Lucie County, Martin County, and the Florida Department of Transportation.

Public involvement will be a high priority in the study process, and public comment will be considered critical in the process of determining appropriate recommendations for new development, redevelopment, and transportation alternatives. Initial public workshops will focus on goal setting and issues identification. The public is invited to participate in these workshops that have been scheduled as follows:

Wednesday, November 8th 7:00 p.m. – 9:00 p.m.
Flagler Community Recreation Center
201 Flagler Avenue
Stuart

Thursday, November 9th 7:00 p.m. – 9:00 p.m.
Port St. Lucie Community Center
2195 SE Airoso Boulevard
Port St. Lucie

Any person requiring special assistance or accommodations to participate in these public meetings should contact TCRPC staff at 561-221-4060 by Monday, November 6, 2000.

Renaissance Planning Group

TREASURE COAST REGIONAL LAND USE STUDY
SUMMARY OF NOVEMBER PUBLIC WORKSHOPS

The consultant team conducted two workshops in conjunction with the Treasure Coast Regional Planning Council in November. The Martin County workshop was held on November 8th at the Stuart Community Center and included roughly 25 participants. The next evening the St. Lucie County workshop was held at the Port St. Lucie Community Center with about 12 participants. At each workshop, the team facilitated group discussions using the nominal group technique. After a brief overview of the study objectives and process, the participants were divided into groups of six to eight citizens and a facilitator recorded their ideas in an inclusive, non-biased manner.

Each group prioritized up to six issues and presented their ideas to the entire audience. This memorandum includes a summary of the prioritized issues identified at each workshop, and the list of ideas generated during the process follows as an appendix. The results from the two workshops and the input received from the upcoming mall workshop will guide development of study goals, objectives and evaluation measures and help shape the alternatives development task of the Regional Land Use Study.

The two workshops revealed striking similarities and differences regarding the goals for the study between the two counties. In Stuart, the citizen group priorities focused on inflexible land use regulations, sustainable growth patterns and land use patterns. Three of the four groups identified a lack of intergovernmental cooperation as a priority issue. Priority issues included the following:

- Access: Traffic signals are not synchronized making it difficult to get out of side streets and it is difficult to get from one business or use to another adjacent use.
- Alternative Modes: Public transportation is needed to ease gridlock. The community also needs more bike paths, pedestrian pathways, and parks.
- Bridges: There are not enough river crossings (Indian St. Bridge and Walton Road).
- Congestion: There is too much traffic and congestion is exacerbated by the lack of buses and alternative travel routes.
- Connectivity: There are insufficient alternative north to south and east to west roads and limited connections between the existing roadways.

- Land Uses: Existing land uses are disjointed and there is an imbalance of land uses. Existing commercial areas should be redeveloped into pedestrian-friendly centers.
- Regulations: Land development regulations do not recognize market forces, are inflexible, and do not support rational solutions or innovation.
- Utilities: The urban service boundary is arbitrary and inflexible. Utility lines should be extended into infill and redevelopment areas (e.g., Jensen Beach).

In Port St. Lucie, connectivity was also a priority issue including east/west corridors to help alleviate congestion on US 1. An emphasis was placed on economic development and mixed-use development patterns that can create alternative housing options for seniors and lower-to-middle income families. The St. Lucie County participants agreed with Martin County regarding a need for pedestrian-oriented centers but they added a desire to generate new businesses and nearby jobs for residents of Port St. Lucie. Their priority issues included the following:

- Bridges: There are not enough river crossings (Indian River and North Fork of the St. Lucie River).
- Connectivity: There are insufficient alternative east to west roads. Roads don't connect to one another. Port St. Lucie Blvd. should be extended into Martin Co.
- Land Uses: Create more economic opportunities in western PSL to reduce commuting distances and encourage more mixed-use developments with affordable housing options for seniors and daycare uses.
- Town Centers: Create new mixed-use, multi-story town center in Village Green area and other locations, as appropriate.
- US 1: Need Port St. Lucie/Lennard Road intersection improvement and West Virginia road extension to create east to west options to US 1.

Both workshop groups identified three similar issues as significant: bridges, connectivity and land uses. While both groups were concerned about US 1 congestion, their solution approaches seemed dissimilar in that Martin County residents pointed out the need for both east to west and north to south roads to alleviate US 1. St. Lucie County residents felt that east to west roads alone would alleviate congestion. A major distinction between the priorities of the two counties is that automobile mobility is a higher priority in St. Lucie County – nearly to the exclusion of other transportation choices. Both communities recognized the relationship between land use and transportation but the St. Lucie County citizens focused on ideas that would make it easier to drive around. In Martin County, the priority issues were more varied and this may have been because the Martin County group was larger. Landscaping and beautification was also

emphasized by Martin County whereas economic development was more significant in St. Lucie County.

The lists of priority issues along with other issues brought up at the workshops are included on the attached pages. Goals, objectives and evaluation measures are under development and will be completed following a study display for public input at the Treasure Coast Mall on December 9, 2000.

Renaissance Planning Group

Stuart, FL - November 8, 2000

GROUP A:

Prioritized Issues

1. Lack of adequate river crossings (Indian St. Bridge) and roadway network and capacity
2. Recognition of market forces
3. Geographic imbalance of land uses in 2 counties and inflexible land use designations
4. Disjointed land uses, land development regulations don't promote integrated transportation & land use
5. Public transportation to ease gridlock
6. US 1 – thoroughfare or neighborhood friendly – no longer a regional road?

Other Issues

- Don't substitute zoning regulations for safety
- Intergovernmental coordination
- Dangerous bike paths – wider sidewalks
- Arbitrary & inflexible urban service boundary
- Turnpike for public use
- Set aside public parks & greenbelts
- Intercommunity pubic transportation
- Green River Parkway
- Mixed use zoning – apartments/stores
- Use right-of-way to (secure) make use of medians for transit, etc.
- Lack of money
- Protection of height limits – retain

GROUP B

Priority Issues

1. Better intergovernmental coordination
2. Ensure Landscape/beautification
3. More E-W connections/corridors
4. Signalization timing – hard to get out of side streets
5. Create more N-S corridors to funnel traffic away from US 1

Other Issues

- Create a secondary grid along US 1 to allow alternative routes
- Meet sustainable vision
- Plan for frontage roads on local efficient level
- Stormwater treatment, include existing areas, pre-treat runoff before it enters the river
- Bridging the river
- Ability to meet technical infrastructures needs
- No flyovers!
- Create localized town centers within walking distance to shopping
- LOS interconnectivity of commercial sites
- Create greenway/green spaces connectivity
- Promote mixed use
- Availability of public transit
- Ensure new bike lanes and retrofit
- Bury utilities with new development
- Traffic maintenance during construction to maintain business access

GROUP C

Priority Issues

1. Lack of transportation alternatives, mainly alternate routes, ex: Green River Parkway
2. Existing regulations that prevent rational or creative land use decisions/solutions
3. Construct bridge from Port St. Lucie to Hutchinson Island
4. Redevelop to pedestrian-friendly centers of villages
5. Expand utilities to infill/redevelop areas, ex: Jensen Beach
6. A lack of intergovernmental cooperation

Other Issues

- It looks like, functions like it is "Anywhere Suburban USA," change sprawl highway to urban boulevard design including land use
- Give builders/developers financial incentives for infill (smart growth)
- More intermixing between commercial and residential uses
- US 1 is an auto-only environment
- Connecting all US 1 uses so you don't have to get back on US 1
- Get people out of their cars – allow gridlock?
- No logical area to be a transportation hub, no central place
- Create mechanism for new building concepts, ex: unique shopping centers w/parking in center and buildings around perimeter, treescape, less clutter. Bad = TCSC w/apartments around outside

- Too many public internal streets (every 200') & associated regulations (setbacks, traffic calming, etc.)
- Should we be going from place-to-place or is that the right place for the use?
- Eliminate conflicting land uses (referring to existing regulations issue above)
- On major roads there should be a safe design for autos, pedestrians and bikes

GROUP D

Prioritized Issues

1. Not enough connectivity of grid network
2. Need new bridge over river in Stuart
3. Too much traffic
4. Poor bus system
5. Want more bike areas & parks, pedestrian pathways

Other Issues

- Extension of Walton Road east across the Indian River Lagoon to South Ocean Drive/AIA
- Extension of Walton Road west to corner of Del Rio Boulevard and existing E/W road, then extending to connect with I-95
- Extension of Gilson Road, South Port St. Lucie side of the river – with a bridge across to Stuart side of the river connecting with Britt Road
- In Southwest Stuart, extension of Citrus Boulevard/48th Ave, CR 76A - crossing CR 714 north to cross Becker Road east of Darwin Boulevard
- Extension of Wiloughby Blvd south at Salerno Road, crossing Cove Road and extending south to CR 708/Bridge Road

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Port St. Lucie – November 9, 2000

GROUP A

Priority Issues

1. W. Virginia (new E-W road) to alleviate US 1
2. More mixed use development with reasonably priced residential housing options and institutional uses including daycare/school
3. Encourage more economic development opportunities out west to alleviate US 1 trips/congestion
4. Need Port St. Lucie/Lennard Road intersection improvement to create parallel options to US 1/west on Port St. Lucie Boulevard
5. Growth is an issue: how do we handle it?

Other Issues

- Create more town centers
- Expand community transit system
- Lack of residential alternatives – density, housing options, townhouses/row houses, elderly housing options (independent)
- Lack of interconnectivity that relates to trip travel length
- Ratio of non-residential to residential land (there is an imbalance – design)
- Environmental Boundaries/restrictions/regulations prevents distribution of services/infrastructure (bridge over river @ W. Virginia)
- Lack of useable pedestrian-bike corridors
- Investigate Jennings Rd extension to US 1/Town Centre Blvd to Morningside Blvd
- Need more jug-handles to enable u-turns (safety)
- "Chain store hell" imbalance between local businesses and chain stores
- Minimal landscaping/streetscaping is a problem (visual clutter)
- Need a streetscape where buildings are closer to road (no sea of parking)
- Diversify traffic patterns

GROUP B

Priority Issues

1. Create a town center in the Village Green area – multi-story/mixed use
2. Need 3rd crossing over the river
3. Need more E-W roadways through the City
4. Lack of connectivity of roads
5. Connection of Pt. St. Lucie Blvd to Martin County

Renaissance Planning Group

Other Issues

- Build performing arts/entertainment boardwalk center along river
- Connect Green River Parkway with Jensen Beach Blvd
- More fixed route/bus stop systems
- Beautification/landscape US 1
- More sidewalks
- Improve access/connections to beaches
- Disparity of shopping opportunities
- More mixed use cores
- Connect Mariposa to Green River Parkway

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TREASURE COAST REGIONAL LAND USE STUDY
SUMMARY OF MARCH PUBLIC WORKSHOPS

Two public workshops were held within the study area (one on March 28th in Stuart and the other on March 29th in Port St. Lucie) in order to gain input regarding the potential desirability and location of four distinct "community element" development prototypes and supportive transportation improvements within the study area. This input will guide the development of conceptual land use and transportation alternatives for testing and evaluation.

Each workshop began with a presentation that defined and gave examples of the four community element prototypes as well as the relative compatibility of each to several different types of transportation investments. The four community elements defined for the workshop were: enhanced mixed use, enhanced highway commercial, enhanced multifamily residential, and enhanced neighborhood commercial.

The participants were then formed into smaller groups of 6-8 individuals and each was provided with a base map on which to mark their community element preferences using colored dots. Group members were allowed to place up to three dots representing enhanced multifamily residential, up to four dots for enhanced highway commercial, up to five dots for enhanced mixed use, and up to six dots for enhanced neighborhood commercial on their base map. These allocations were maximum limits—participants could choose to place fewer dots for each community element type or even exclude one or more types.

After each group member marked up his/her base map, the group facilitator helped the group to reach a consensus by comparing each base map and noting common trends and patterns. With the aid of the group members, the facilitator then marked up a large base map with dots for each community element similar to the methodology described above to represent the group's consensus.

Finally, each group member was instructed to note on his/her base map the top three transportation investments (in ranked order) which would best support the land use vision he/she

had articulated. Participants were allowed to select any transportation investment (roadway improvements, transit service, bicycle/pedestrian facilities, etc.) that they felt were appropriate.

Land Use Results

The results of the workshop held in Stuart indicate that most participants felt development should be clustered along US 1, generally from the Village Green area down to the Cove Road area. New development would also be clustered in Stuart and Jensen Beach. A few participants also indicated a desire for new development, particularly enhanced highway and neighborhood commercial, to occur in west and southwest sections of Port St. Lucie.

Not surprisingly, participants at the Port St. Lucie workshop expressed a desire for development to be focused mostly in Port St. Lucie and the portion of Fort Pierce within the study area. Participants in this workshop focused new development, particularly enhanced highway commercial, along US 1 from Ft. Pierce to Jensen Beach Boulevard as well as along Gatlin Boulevard, Port St. Lucie Boulevard, and Prima Vista Boulevard. In contrast to the other development types, proposed locations for enhanced neighborhood commercial were spread throughout the study area, although primarily within the City of Port St. Lucie. Participants at both workshops were concerned about improving the current housing/employment imbalance that exists between the two counties.

Transportation Results

In general, workshop participants indicated a preference for alternative corridors to US1, extension of West Virginia Drive, and implementation of both fixed route and demand response bus service. Several participants also expressed a desire for light rail transit, Amtrak, or Tri Rail service. The following list summarizes the responses from both workshops regarding priority transportation improvements; responses are grouped by priority order.

#1 Transportation Priorities

- Extending West Virginia Drive across the north fork of the St. Lucie River (3 responses)
- Alternative roadway corridors to US 1 (Green River Parkway, Willoughby Avenue)

- Fixed route bus service (limits not defined) (2 responses)
- Bus service along an expanded West Virginia Drive corridor from I-95 to Village Green
- Bus service for shopping between Stuart and Hutchison Island
- Palm City-Stuart busway
- Demand response transit service
- Increased commuting options (transit, carpooling, etc.)
- More sidewalks with shade trees throughout the study area
- Bus/rail service within the US 1 corridor from Ft. Pierce to Palm Beach County

#2 Transportation Priorities

- Fixed route bus service (limits not defined) (3 responses)
- Complete widening of Port St. Lucie Boulevard east to US 1
- Completion of the Green River Parkway
- Bus service along US 1 from Walton Road to Green River Parkway
- Fixed route bus service between St. Lucie West and Port St. Lucie (Walton Road/US 1)
- Transit service between downtown areas
- Demand response transit service
- Park and ride lots (locations not defined)
- Walking/bicycling paths within and connecting urban areas

#3 Transportation Priorities

- Amtrak or Tri-Rail service (4 responses)
- Light rail transit service (limits not defined)
- Completion of the Palm City Bridge
- Bus service along Green River Parkway and Jensen Beach Boulevard
- Bus/rail service connecting Satalite City, Stuart, and Hutchison Island
- Deviated fixed route bus service (limits not defined)
- Increased bicycle/pedestrian amenities throughout the study area
- Connecting "greenways" for bicycles
- More sidewalks in the Bayshore Boulevard/St. James Drive area

Unranked Transportation Priorities

- Completion of the West Virginia Drive corridor
- Greater street connectivity throughout the study area
- Increased bicycle/pedestrian amenities throughout the study area

WELCOME

This survey will take 1 – 5 minutes to complete.

The purpose of this survey is to determine which building and community styles are desirable. Afterwards, you will be asked to identify on a map appropriate areas for growth.

Part one takes less than a minute and consists of choosing between two sets of photographs by marking either a "U" or an "S" on the chart .

Part two will take a little more thought and time. You will be given a map and sticky dots so that you can indicate where future growth would be suitable.

Thank you for your time.

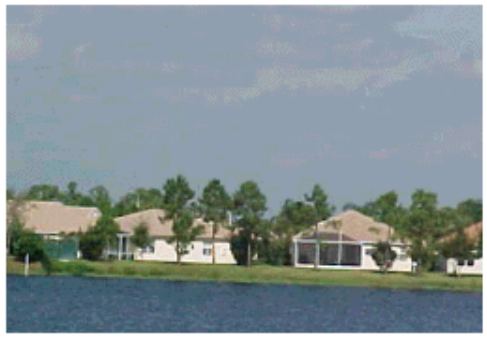
Regional Land Use Study

Choose either Group U or S:

Residential Uses

Group U Photo Array

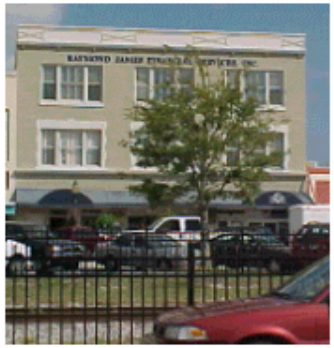
Group S Photo Array



Choose either Group U or S:

Group U Photo Array

Businesses



Group S Photo Array

Choose either Group U or S:

Mixed Uses

Group U Photo Array

Group S Photo Array

Martin & St. Lucie County

Enhanced Multifamily Residential

Enhanced Mixed Use

Enhanced Corridor Commercial

Neighborhood Commercial

Enhanced Multifamily Residential:

This development prototype would typically involve a heavy concentration of high and medium density residential uses interspersed with a mixture of other uses. Buildings and sites would feature pedestrian-oriented designs with buildings close to or clearly connected to sidewalks. Typical building height would range from two to four stories. High-density residential development would entail attractive and pedestrian-oriented apartments and condominiums (between 12 and 16 units per acre). Medium-density residential development would be characterized by duplexes and town homes ranging in density from six to ten units per acre. Supporting land uses would focus on retail and service businesses designed to serve nearby residents and would likely include a mixture of cafes, restaurants, offices, medical offices, retail stores, local markets, small gas stations, daycare centers, stationary stores, dry cleaners and other compatible uses. Large employment centers, industrial uses, manufacturers, storage, automotive, boat and other vehicle-related businesses are incompatible with this prototype. Where possible, homes, non-residential uses and parking could be located in the same building. Typically, retail uses would occur at street level facing sidewalks with offices and homes located on upper floors. Otherwise, residential and non-residential uses would be closely proximate or incorporated into the same development site to facilitate walking.

Enhanced Corridor Commercial:

This development prototype would typically provide easy access from a highway or arterial roadway and would feature large retail uses (e.g. Home Depot, Barnes and Noble, Office Max, Stein Mart, Rooms To Go). Building and site designs would feature a pedestrian orientation with buildings located close together and adjacent to roads. Large parking expanses would be divided into smaller areas by including landscaped walkways, clear internal connections between buildings and intermingled with retail uses. Dispersed among these large retailers would be a mixture of service businesses, local retailers, restaurants, and offices incorporated into a single site design or project. These areas would serve regional shoppers from the largest market area. Uses would likely include major "big box" retailers, department stores, office supply stores, retail chains, movie theaters, large restaurants, employment centers, and other compatible uses. Transit stops or stations would be integrated into the site and may serve as local hubs. Automotive and vehicle sales, services and storage businesses are incompatible with this prototype. Occasionally, convenience stores and gas stations would be included on out parcels so long as the out parcel architecture, site design and access points were integrated into the project design. Where possible, residential uses could be incorporated into a project; otherwise, residential uses should be close to the site with clear and convenient pedestrian access ways.

Enhanced Mixed Use:

This development pattern would typically include a broad mixture of commercial, service, offices and residential uses incorporated into one building or site plan. Buildings and site designs would retain a pedestrian scale while being located on a modified grid street layout with on-street parking. Typical building heights would range between three and seven stories. Primary uses would be retail, office and service businesses designed to serve residents of the broader market area. The mixture of uses would likely include major employers, hospitals, apartments, condominiums, educational centers, retailers and restaurants interspersed with professional offices, dry cleaners and other compatible uses. All automotive and vehicle sales, services and storage businesses are considered to be incompatible. Where possible, homes, non-residential uses and parking could be located in the same building as businesses. Typically, retail uses would occur at street level facing streets and sidewalks with professional offices and homes located on upper floors. Otherwise, residential and non-residential uses would be closely proximate to employment and shopping centers or incorporated into the site design.

Neighborhood Commercial:

This development prototype would always be centered on supporting an adjacent residential neighborhood at appropriate intersections. Business activity would be compactly structured and lighting, noise, parking or other features would not encroach into neighborhoods. These prototypes are reflective of neighborhood commercial uses of the 1950s era and typically involve tight concentrations of retail and service uses geared toward residents of the immediate area. Buildings and sites would be very pedestrian-oriented with buildings close to sidewalks. Typical building height would range from one to two stories in a character and scale reflective of adjacent housing uses. Uses would likely include a mixture of cafes, dentists, optometrists, local markets, small gas stations, local convenience stores, daycare centers, stationary stores, dry cleaners and other compatible uses. Large employment centers, industrial uses, manufacturers, storage, drive-through restaurants, automotive, boat and other vehicle-related businesses are incompatible with this prototype. Parking supply would be limited to keep in scale with the neighborhood and encourage walking from nearby areas. Where possible, on-street parking, transit stops, religious institutions, and educational facilities would be located within or adjacent to neighborhood commercial districts.

tcrpc.org
treasure coast regional planning council

Renaissance Planning Group

Regional Land Use Study

Study Partners:

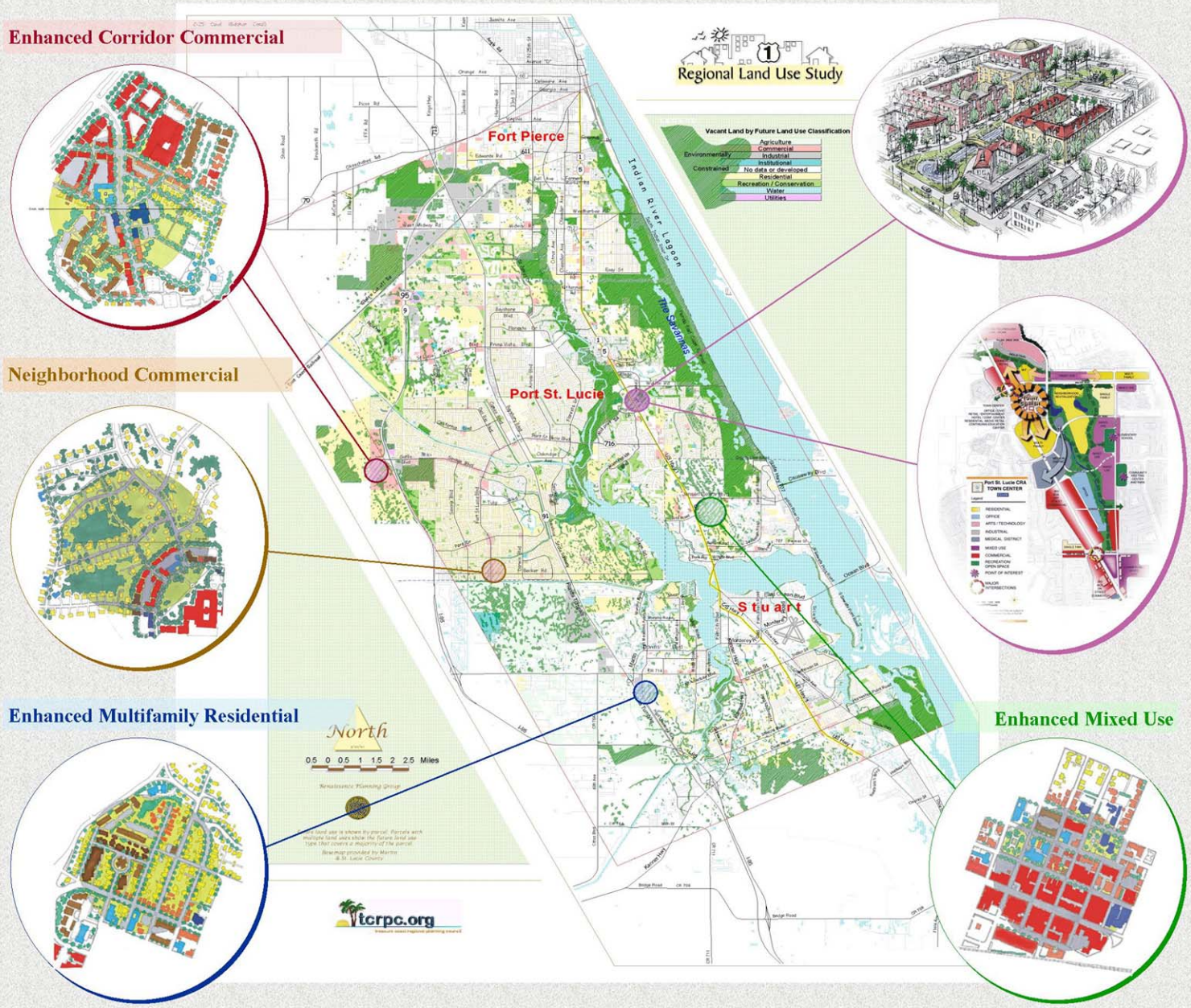
- Treasure Coast Regional Planning Council
- Martin County
- St. Lucie County
- City of Stuart
- City of Port St. Lucie
- City of Fort Pierce
- Florida Department of Transportation, District 4
- Florida Department of Community Affairs

Issues:

- Economic imbalances between the two counties
- Lack of connectivity and travel options
- Few gathering points and centers
- Too many/too long vehicle trips on the roadway network
- Negative or inaccurate images and perceptions of the cities in the region

Study Purpose:

The Regional Land Use Study is a multi-agency initiative designed to explore alternative growth management strategies. The study includes an inventory of vacant and redevelopable land, an evaluation of alternative land use and transportation scenarios, and a market analysis of land uses. A key part of the study is to recommend changes in local government comprehensive plans to implement the study findings.



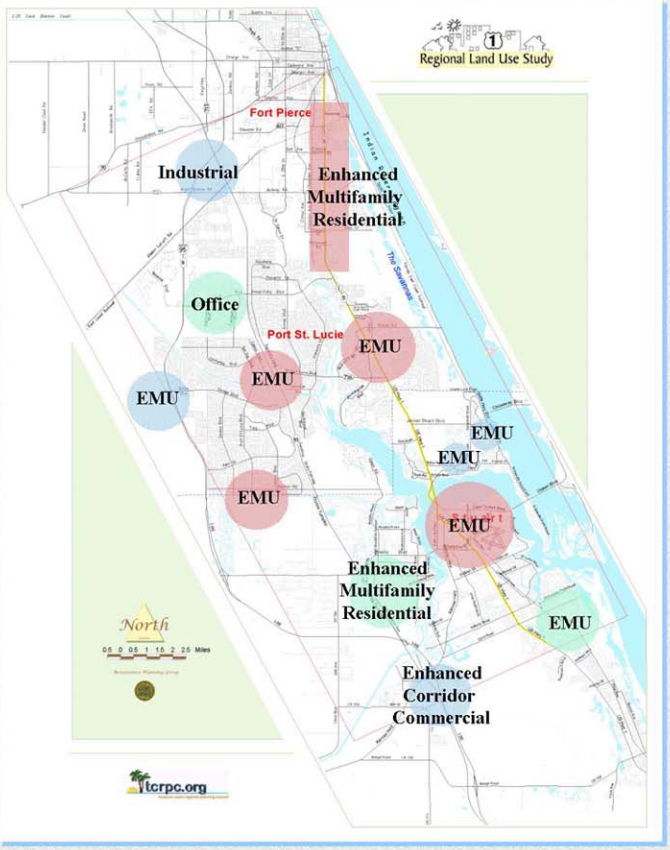
Alternative Land Use Scenarios:

This Regional Land Use Study has the potential to redirect future development and consider two alternative land use scenarios: the "Nodal Alternative" and "US 1 Corridor" (illustrated elsewhere on this display). These two different approaches balance competing community goals.

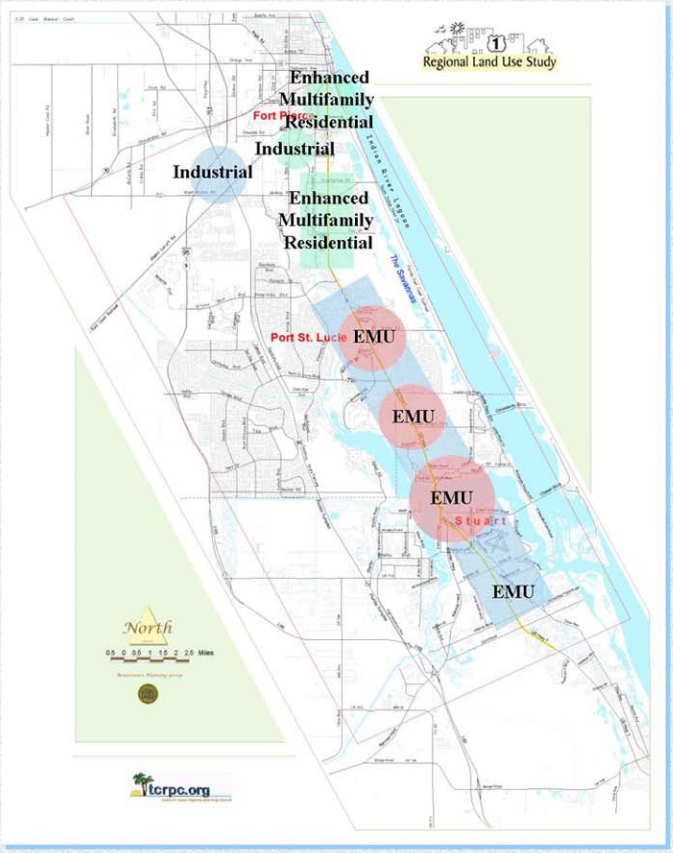
- The "Nodal Alternative" takes advantage of existing roads and developments while establishing a local balance between the number and location of jobs and homes. It is based upon a planning theory that locates several centers of business activity at key intersections throughout a region and close to homes to shorten travel times and distances.
- Alternatively, the "US 1 Corridor" development scenario was designed to maximize redevelopment and infill development opportunities along key road corridors and to preserve the scenic beauty of the natural environment. It tries to achieve a better balance between the number and location jobs and homes on a broader regional level. The US 1 Corridor scenario was also designed to reduce single-occupant vehicle trips and maximize the potential for bus, light rail and other potential transit corridors by concentrating homes and jobs along key roads.

Once a preferred alternative is selected, potential implementation strategies become the focus of the study.

Nodal Development Alternative



US1 Corridor Development Alternative



Primary **Secondary** **Tertiary** **EMU = Enhanced Mixed Use**

Several of the Descriptions Are Called "Enhanced," What Is the Definition of "Enhanced" in This Context?

"Enhanced" community prototypes are atypical because they reflect high-quality design concepts and development patterns generally built in premier communities. In contrast to typical suburban communities, these "enhanced" areas would be more traditional in design character reflecting the architecture, community layout, street network, and public space design of pre-World War II America. Attractive and architecturally distinct structures would be located close to streets and each other. Buildings would be located closer to roads and property lines while the allowable square footage and mixture of businesses would be intensified to use land more efficiently. In general, this community prototype is more urban in character to support a more balanced transportation system. In contrast to typical suburban areas, homes would be close to jobs and service businesses. Automotive areas (roads, parking) would be designed to be safe, convenient and comfortable for walking, bicycling, and transit usage rather than being exclusively automobile-oriented. The road network would feature a modified grid pattern with narrow streets allowing more route choices and dispersing traffic among roadway connections. Rather than a single large parking lot, parking areas would be interspersed with buildings and/or landscaping to promote proximity of land uses. Sidewalks, street furniture, bike lanes and transit stops would be integrated into the street designs. These design concepts would lead to a balanced land use pattern and expand transportation options designed to help reduce commuting times and the number of car trips.

Regional Land Use Study
Martin and St. Lucie Counties
Real Estate Roundtable Discussion Group – Meeting No. 1
9:00 to 11:00 a.m.—January 24, 2001
TCRPC Conference Room
301 E. Ocean Boulevard, Suite 300, Stuart, Florida

Attendance: See attached sign-in sheet

Also in Attendance: Terry Hess, Treasure Coast Regional Planning Council
Steve Ball, Port St. Lucie
Dennis Murphy, St. Lucie County
David Ginns, St. Lucie Community Transit
Whit Blanton, Renaissance Planning Group
Abra Horne, Renaissance Planning Group
Linda Dozier, DRMP

Meeting Summary

After welcome and staff introductions, Mr. Hess described the origination and purpose of the Regional Land Use Study. He addressed the study objectives, described the study partners and explained the study process. He then turned the discussion over to Mr. Blanton, who gave a brief presentation on the tasks, status and schedule of the Regional Land Use Study. He distributed a copy of the presentation materials and a meeting agenda. Mr. Blanton also described the purpose of the roundtable discussions and the objectives for this first meeting. There was some discussion, particularly related to market imbalances and transportation investments. Mr. Blanton asked for the continued involvement of this group of participants in similar discussions to be held as the study progresses.

Ms. Horne of Renaissance Planning Group then led the participants in an interactive discussion of various land use, development and transportation issues. A record of their major comments is presented in this document. Some editing and elaboration has been made on the comments to aid in clarity. Following this list of comments, the summary section compiles the comments into key themes.

The next meeting of the Real Estate Roundtable Discussion Group will be held sometime during the week of March 19th to discuss alternatives.

Discussion Topics and Comments

What is attractive about Martin and St. Lucie County?

- Convenient location – two hours from Orlando and Miami
- World class fishing opportunities – rivers, inlets, ocean
- Land use opportunities, growth and development potential

What are challenges about this area?

- Geography – Port St. Lucie was ill-conceived
- Lacking proximity to airport
- Travel needs – where are people going? Retirees are major element of the population and they clog the roads
- Everybody is from someplace else – difficult to build sense of community around massive migration
- Competition between jurisdictions/agencies for economic development; no shared sense of purpose

Business/Economic Development Needs

- Encourage higher-end housing to direct business growth to PSL/St. Lucie County
- Business needs to be within 30 minutes of a major airport
- Good educational system
- Nearby entertainment and cultural amenities – survey findings
    - Hotels
    - Museums
- Companies look at regional demographics/geography in making location decisions; local factors are less important
- Port St. Lucie lacks land inventory – availability of larger parcels
- Martin County has historically been unable to offer any kind of incentives to lure businesses (may now change)
- Long-term incentives (e.g., land assembly, transportation investments) are more important than short-term incentives (e.g., impact fee waivers) for economic growth
- All incentives play a role, but their importance is sometimes overstated

Development Process Issues

- Incentives do not drive the process; they are important but are secondary to other issues concerning development and growth
- Emphasis should be on creating east-west corridors
- The planning process/system is an impediment to economic growth; regulations are confusing, contradictory and often too prescriptive
- Martin County permitting has historically been obstructionist
- The system (i.e., concurrency) tells you to put development in places it should not go because of a lack of market demand or development constraints
- Changing land uses to non-residential is time and money consuming; this is a real disincentive to expanding economic opportunity in the study area
- Redevelopment should be demand-driven; let the markets determine where redevelopment occurs and what it will entail
- Political insight/structure is needed to guide the process more steadily; there is a lack of consistency and will

Opportunities/Areas for Growth

- US 1 North – redevelop this segment with residential uses; not retail or office. There is no market for those uses from Prima Vista to Virginia.
- This area should continue to market low density and affordability – these are attractive to many people
- School – workplace locational effects need to be addressed; proximity to good schools will be a key influence over location decisions, particularly for executives and managers
    - Need to promote St. Lucie County's education system; it gets a bad rap but it is actually a good system (school choice)
    - Colleges offer a base for learning/recruiting; the area needs a good technical college to attract more businesses growth and economic diversity
- Businesses want existing buildings in place – cheaper and more efficient
- Martin County should focus on bringing in office and technology – not retail development; the retail will come if the other uses are in place
- Businesses are moving into the area from South Florida – cheaper labor, less congestion, etc.
- The retiree influence here is strong, and needs to be considered in the study (e.g., travel habits and needs, development character and land uses, buying habits, etc.)

Conflicts/Problems to Address:

- The desire to remove traffic from US 1 and redevelop US 1 is an internal conflict; redevelopment will add traffic to the corridor
- Newcomers and older residents make different lifestyle choices and have different perspectives on development in the area
- There are no rewards in the Development of Regional Impact (DRI) system – it is overly expensive and time consuming, yet it is the kind of process that should work to encourage more mixed use, internally consistent development that is desired
- Flexibility is important; for planned developments, government should specify what it does *not* want, and allow the developer to figure out how best to avoid those things rather than being overly specific on what the developer must do

US 1 Corridor

- Subsidies and incentives are needed for redevelopment – to direct growth back to the corridor
    - Impact fee waivers
    - Utilities and infrastructure
- Density needs to be addressed – 10 dwelling units per acre may be too low for the US 1 corridor
- There is a cycle to the market process that should be reflected and addressed in the study – investment, growth, decline, vacancy and then redevelopment; different segments of US 1 are in different phases of that cycle
    - The market process for US 1 needs to be laid out in a timeline

Summary

This was a lively, wide-ranging discussion that covered a variety of topics related to development and growth in Martin and St. Lucie Counties. The key issues related to the need for a more market-oriented perspective to growth and development that reflects available infrastructure, level of income and land availability. The development process should be examined to allow for greater flexibility in targeted growth areas, with incentives and disincentives used strategically to encourage the desired development pattern and type of uses. There should be a more coherent vision for how the area is to develop – from a technical and procedural level up to a policy/political level.

The comments from this meeting will be used to help the study team and steering committee finalize the goals, objectives and evaluation measures for the project, and to begin developing land use – transportation alternatives for analysis. The second roundtable discussion will occur in mid- to late-March to acquaint the participants with the alternatives and get feedback on the concepts and projects, as well as implementation strategies.

Realtor's Round Table Discussion Guide
January 24, 2001
Draft Version
(9:00 a.m. – 10:30 a.m.)

- What do **you like** about the Treasure Coast area? What is unique about it?
  - Beautiful area
  - Recreation opportunities (golf, boating, beaches, & parks)
  - Easy access to other areas via Turnpike and I-95
  - Close to West Palm Beach
  - Less expensive and less crowded than South Florida
- What characteristics of this community make it **easy to sell/develop?**
  - Marinas and golf courses
  - North Fork of the St. Lucie River
  - Access to the ocean, intercostal waterway, and Lake Okeechobee
  - Low land prices in comparison to South Florida
  - Many people/households/rooftops
  - Median or disposable household income
- Which areas are perceived as being **more attractive** now and in the future?
  - St. Lucie West
  - Westmoreland Blvd
  - Stuart, Jenson Beach and Ft. Pierce downtowns
  - Hutchinson Island
- What are the **emerging trends** in this area?
  - What is changing and what could change?
  - Continue as a bedroom community or not? What's desirable?
  - Are different types of development projects being considered in the area?
  - More attractive for single-family, multi-family, retail, or office development?
  - Are developers changing the way that they view the area?
  - What characteristics make segments along US 1 more or less desirable?
- Are there **less desirable** areas within the Treasure Coast area?
  - White City
  - Village Green Shopping Center
  - South Ft. Pierce
  - MC and SLC Airports

- What would **you change** about the Treasure Coast area?
    - Congestion along US 1
    - More bridges to Hutchinson Island
    - Fewer used car dealerships
    - Should the development pattern/design/type of land uses change?
    - Different architecture or taller buildings?
    - Large office parks or more industrial development?
    - More jobs and employment centers?
    - Connected town centers?
    - Sense of place?
    - More transportation options?

- **Where should new development** or redevelopment occur within the study area?
    - Should redevelopment be encouraged along the US 1 corridor? Why or why not?
    - Should there be a western development boundary?
    - Should it be easy or difficult to change the urban service area?
    - What would have to happen to stem westward growth?

- Are buyers or national developers interested in developing **mixed-use projects** along U.S. 1?
    - Why or why not?
    - Do projects with increased accessibility, pedestrian-friendly design sell?
    - If not, why not?
    - If so, to whom or what market?

- Would developers support **land development regulations** that encourage or require new developments to be pedestrian-friendly?
    - What would encourage you to support this effort? (e.g., faster approvals, density bonuses, etc.)
    - What would discourage you?
    - What incentives would you offer developers, if you were writing the LDRs?

- Does **transportation have an impact** on real estate development?
    - Does travel time impact the size and scope of a market study?
    - Do national developers ask about traffic?
    - Are they concerned about U.S. 1 congestion or development patterns?
    - Does transportation affect developers pro formas or bottom line?
    - Has a buyer ever walked away due to transportation concerns?

- What is the first question that potential buyers ask when **<u>considering a purchase</u>** of property located in this corridor?
    - Zoning – allowable uses?
    - Potential for land use change?
    - Jurisdiction – which local government will review the project?
    - Infrastructure – availability of water and sewer services?
    - Transportation – intersections or congestion?
    - Access points – where will driveways be permitted?
    - Other immediate concerns?

- What are the significant thresholds for these **<u>evaluation measures</u>** being used to identify vacant or desirable redevelopment areas within the study area?
    - Located close to major roadways
    - Adequate Infrastructure
    - "Underzoned" properties (where Future Land Use compared to Zoning)
    - "Undervalued" properties (where some properties are cheaper than comparables)
    - Located in development "hotspots" (DRI's, malls, activity centers, near big boxes, and within or adjacent to downtown areas)
    - Large vacant parcels of land
    - Ability to combine various parcels for development (nearby vacant land and few owners per acre)
    - Environmental constraints
    - Building age
    - Platted parcel or existing subdivision
    - Rank the importance of these criteria for the corridor?

- What is your 10 and 20-year **<u>vision</u>** for the Treasure Coast area?
    - How can the area be improved?
    - What would you change?
    - What would you eliminate?

Regional Land Use Study
Martin and St. Lucie Counties
Real Estate Roundtable Discussion Group – Meeting No. 2
9:00 to 10:30 a.m.—April 25, 2001
TCRPC Conference Room
301 E. Ocean Boulevard, Suite 300, Stuart, Florida

Attendance: See attached sign-in sheet

Also in Attendance: Terry Hess, Treasure Coast Regional Planning Council
David Ginns, St. Lucie Community Transit
Whit Blanton, Renaissance Planning Group
Jacob Riger, Renaissance Planning Group
Greg Kern, DRMP
Linda Dozier, EDAW

Meeting Summary

After welcome and staff introductions, Mr. Hess gave a brief overview on the tasks, status and schedule of the Regional Land Use Study. He then turned the discussion over to Mr. Blanton, who gave a brief presentation describing the purpose of the roundtable discussions and the objectives for this second meeting.

Mr. Blanton then began the workshop discussion by identifying several challenges in the region to changing land use patterns and transportation investments. Specific issues that were listed and discussed include:

- Economic imbalances between the two counties
- Lack of connectivity and travel options
- Few gathering points and centers
- Too many/too long vehicle trips on the roadway network
- Negative or inaccurate images and perceptions of the cities in the region

This generated much discussion among the group regarding the purpose and ultimate objectives of this study. It was noted that different types of development will attract different types of people with different values, such as young professionals who might be attracted to a high density, urban setting vs. families attracted to a low density, small town setting.

A key component of this discussion was the observation that elderly/retired individuals often view driving as a social function because of the opportunity it affords to interact with a wide range of people (such as the local hairdresser, banker, doctor, etc.). The group then debated whether elderly/retired individuals actually like having to drive to multiple locations to complete their errands or whether they place primary emphasis on the social interaction that occurs once at

their destination. The other key component to this discussion was a debate within the group about how negative sprawl really is. The observation was made that many families are moving to Port St. Lucie specifically because they value the inexpensive housing costs and residential environment that the city offers. Accordingly, one member asked what was wrong with westward sprawl from the coast. The counterpoint given was that sprawl is more expensive to serve and is economically, environmentally, and socially inefficient.

Mr. Blanton gave a detailed overview of the alternatives and solicited input. A lively discussion ensued; the main points are summarized as follows:

Key Discussion Points Regarding Land Use Alternatives

- Explore changing the platted lot structure of Port St. Lucie to consolidate lots.
- Target areas for employment (across the Turnpike, Western Corridor, etc.).
- Each distinct area of Port St. Lucie should be self-sufficient (LTC Ranch, Westchester, etc.).
- Port. St. Lucie may expand far to the west.
- Government incentives are minor compared to market forces of demand and profit.
- People won't get out of their cars or pay to ride the bus. Reasons for this include poor health and the mentality that people moved from up north to get away from urban/traffic problems and want to drive their own car.
- However, people may use transit because of lack of parking at employment destinations.
- Government should make it more expensive to develop in undesirable areas and vice versa.
- Government should provide incentives, such as transfer of development rights. This will require political will as well as certified receiver sites that are formally identified and approved of by governments. This would help eliminate NIMBY ("not in my backyard") responses.

Questions were then asked about the strategy screening process and how the group's input at this meeting would be reflected in refining the alternatives. There was a consensus of the group in preferring the nodal alternative because it was felt that it was more flexible, easier to implement and better reflects market demand.

Mr. Blanton then led the group in a discussion of identifying viable public sector strategies to encourage private investment to implement the land use vision. The overriding comment was that the most effective strategy for changing market demand and land use patterns is government investment in capital facilities. Following are some of the key points that were made as part of this discussion:

Key Discussion Points Regarding Viable Implementation Strategies

- What is the ultimate goal of the community? This should govern the chosen strategies.
- Government should assemble land and make it available for development.
- Provide certainty in the planning/permitting process for developers.
- There should be increased governmental coordination to achieve that certainty.
- Don't pit communities against each other.
- Provide government services (such as sewer, water, and schools) to designated sites.
- Lower the parking requirements for certain uses, encourage shared or joint parking, and rearrange the site orientation of parking lots to make the overall site more pedestrian and transit friendly.
- There is inadequate parking for workers in commercial and industrial areas, especially when uses change and a newer, more intense use demands more parking.
- There are inequities between commercial and employment parking standards (i.e., plentiful parking is required for commercial uses but not enough for employment uses).
- How do you encourage community political support?
- Development will occur around where government centers, hospitals, schools, and other institutional uses are located.
- Officially designate and promote mixed use areas.

Summary

This was a lively, wide-ranging discussion that covered a variety of topics related to development and growth in Martin and St. Lucie Counties. The key issues related to the public sector's role in encouraging private sector investment to accomplish community goals as well as some of the challenges to be overcome in changing existing land use patterns. The group felt that, while the public sector does have a key role to play in providing incentives and policy direction, market forces are much greater influences on the location and character of development. The most important strategy governments can use is to make capital investments, such as in water, sewer, and other development infrastructure.

The comments from this meeting will be used to help the study team and steering committee refine the conceptual land use alternatives as well as in drafting implementation recommendations. The third roundtable discussion will likely occur in August to present the performance results of the land use and transportation alternatives and address specific implementation steps.

APPENDIX B

ENVIRONMENTAL POLICY ASSESSMENT

TREASURE COAST REGIONAL LAND USE STUDY
ENVIRONMENTAL POLICY ASSESSMENT
MEMORANDUM

This is an assessment of the environmental policies that may effect development within the US 1 corridor within Martin and St. Lucie Counties. These policies include development restrictions concerning wetlands, surface waters, shoreline protection, noise pollution, dredge and fill activities, erosion control, mangrove protection, and upland preservation. The policies will affect development patterns within the corridor, especially on vacant parcels of land. Each jurisdiction within the corridor has been evaluated for environmental policies that would affect development. By and large the Cities within the corridor have deferred environmental regulations to the County and/or State level. There where no significant inconsistencies noted from the County level to the State level.

Martin County

Martin County has several restrictive policies regulating the development of vacant parcels. There are restrictions for upland and wetland areas, surface waters, shoreline areas, mangrove areas, stormwater run-off and erosion control. Preservation of rare upland habitats such as Sand Pine-Scrub Oak and Turkey Oak habitat will be required for new development. Twenty-five percent of these rare habitats must be preserved on-site, restricting the developable area. In addition, Martin County has a no impact policy to protected areas. Impacts to wetlands or protected uplands are only allowed for established waivers or by variance. Waivers allowed by code are: 1) lots of record recorded prior to April 1, 1982, 2) access to a property, 3) bridges within right-of-way, 4) utility extensions, 5) construction of boat docks, board walks, and boat ramps, 6) removal of exotic vegetation. Activities outside of these areas which propose wetland impacts must be approved by the Board of County Commissioners at a public meeting and must meet the variance criteria of Martin County.

Wetlands must also be buffered to prevent secondary impacts and to provide habitat for plants and wildlife. A seventy-five (75) foot buffer must be provided to wetlands which are connected to waters of the state, such as creeks, rivers, lakes, and estuaries, a fifty (50) foot buffer must be provided to wetlands that are isolated (no connection to waters of the state), and a one-hundred (100) foot buffer must be provided to County designated Wetlands of Special Concern. Wetlands of Special Concern are listed in the Martin County Code.

Martin County will prohibit the direct run-off of stormwater to wetlands and surface water bodies. Pre-treatment of stormwater is required via ponds or other acceptable methods to reduce the degradation of water quality within wetlands and other surface waters.

St. Lucie County

St. Lucie County also has several restrictions concerning the development of vacant parcels. There are restrictions for uplands, wetland aquatic preserves, shoreline protection, coastal/dune protection, well field protection and flood plain protection.

Vacant upland areas will be regulated through vegetation clearing regulations, native plant communities protection and endangered and threatened species habitat protection. St. Lucie County will only allow clearing of upland areas via a permit process through the County Engineer's Department. Clearing must be tied to some type of development activity with mandatory protection of native trees greater than 12 dbh. If native trees are proposed to be cleared mitigation activities will be required. Twenty-five percent of all rare upland vegetative communities must be preserved on vacant parcels, including scrub communities, hammocks and historic dunes. In addition, habitats which support populations of endangered or threatened species must be protected from development. If a vacant parcel does contain endangered or threatened species a permit to develop must be granted by the County as well as the Federal and State permitting requirements.

Wetland areas must be delineated and permitted by the County. Basic standards of review are similar to State and Federal regulations with the following exceptions. St. Lucie County will not regulate isolated wetlands less than 0.5 acres in size. All other wetland areas must be permitted if impacts are proposed during development. All wetland areas to be preserved must have a ten (10) foot wide upland vegetated buffer in which no development activities are allowed.

Shoreline areas within designated aquatic preserves contain buffering regulations. The designated water bodies are the Indian River Lagoon and St. Lucie River. A fifty (50) foot vegetated buffer must be provided by all developments, residential or commercial, adjacent to the Indian River Lagoon. Development adjacent to the St. Lucie River and its tributaries contain two buffer requirements. A seventy-five (75) foot buffer/setback to development is required and a 300 foot buffer is required for impacts to the flood plain.

St. Lucie County also requires buffering to potable water wells through well field regulations. Buffering requirements have been established for land uses that may have a negative effect on drinking water sources. Two hundred feet buffers are required for commercial and residential septic tanks and drain fields, three hundred feet buffers are required for stormwater ponds and five hundred feet buffers are required for sewage treatment facilities.

Flood plain protection within St. Lucie County is equal to the federal standard of one foot above base flood elevations for development. However, as stated under shoreline protection regulations a three hundred feet buffer within the flood plain is required within designated aquatic preserves.

Water Management Districts and Florida Department of Environmental Protection

The Water Management Districts (WMD) and the Florida Department of Environmental Protection (FDEP) regulate wetlands and other surface waters within the State. Regulations range from protection of wetlands, stormwater regulations and consumptive water use permitting. The regulations of the WMD and FDEP are very similar, containing procedural differences. The WMD will typically review and permit projects such as development of residential and commercial projects, and roadway projects, while FDEP typically permits utility projects, landfills and projects by the WMD.

The WMD and FDEP will permit impacts to wetlands and other surface waters, if an applicant can provide assurance that there are no significant temporary or permanent impacts to the wetlands or other surface water bodies or that the significant temporary or permanent impacts can be mitigated by activities completed by the applicant. These activities include creation, enhancement, restoration, and preservation of other wetlands or other surface waters. While mitigation activities and not required by rule, they are the easiest method of assuring impacts to wetlands will not significantly impact State wetlands and wetland dependent wildlife.

Florida Fish and Wildlife Conservation Commission

The Florida Fish and Wildlife Conservation Commission (FFWCC) protects wildlife species listed as endangered, threatened or species of special concern. The FFWCC regulates the "taking" of a listed species to protect that species from human activity. A "take" means to harm, kill, handle, feed, or sell a species that has been listed by the FFWCC. The FFWCC has developed regulations concerning each listed species, including survey requirements, buffering requirements, and mitigation requirements if a take is approved.

Attached is a matrix of the above regulations. The matrix can be used as a quick reference to regulations which will govern development within the project corridor. No major inconsistencies were found between the agencies that regulate development. Wetlands, rare uplands, listed species, mangroves, and the rest will be regulated under similar policies and rules. The difference will be from one location to another within the corridor. There will be large tracts of land that can be developed or re-developed that will not be affected by the environmental rules due to the existing conditions on site. However, there will be large tracts of land that will not be developed due to the environmental constraints found on site. The Regional Planning Council has been given the environmental constraints map and should be able to target areas that have the potential to be impacted by environmental regulations.

The overall impact environmental policies will have to development again will be dependent on the existing conditions of the site. The environmental constraints map shows the areas which have the greatest potential to be impacted by policies and regulations. The question has been asked, "Can the corridor be developed or re-developed with the existing policies and regulations in place today?" Based on the environmental constraints map and the research of the regulations, the corridor can be developed or re-developed, while maintaining the level of environmental protection in place today. This may require, on some parcels, less development or less intense development.

Policies that are in place which may help development within the corridor include mitigation, transfer of development rights, and the use of preservation trust funds. All the agencies within the corridor allow for the use of the above measures to off-set impacts to the environment. The transfer of development rights could be very helpful within this corridor due to the restrictions placed on wetland impacts by the Counties. By allowing the transfer of development rights from the wetlands to the uplands, developers can regain density or square footage lost to wetland regulations.

APPENDIX C

US 1 MARKET ANALYSIS

TREASURE COAST REGIONAL LAND USE STUDY
ANALYSIS OF US 1 MARKET FEASIBILITY

OCTOBER 2001

INTRODUCTION

The complete study data, provided by the participating Counties to Renaissance Planning Group, includes a list of 30,511 parcels in the study area. The original intent was to track parcels, sold within the last year, which fall within an identified four to five mile sample corridor of US Hwy 1. However, upon initial analysis of the data, too few parcels resulted from the original parameters to provide an adequate statistical sample. Therefore, the market study was reconsidered and expanded to include vacant land sales from 1999 to the time of acquiring the sales data and to include seven miles of the US 1 corridor. For our analysis, we have 23 parcels in St. Lucie County and 10 parcels in Martin County.

ANALYSIS OF VACANT PARCELS

From the original lists of parcels, data sorts were made to limit the parcels being analyzed to those fitting the parameters above plus those for which there was incomplete data. Parcel information includes identification number, transportation analysis zones, acres, future land use designation, land value and total value (as a check to ensure the vacant status), taxable value, sales date, sales price, jurisdiction and proximity to the US 1 corridor.

After paring down the original list of parcels in the study corridor to about 500 parcels, 108 have been ground-truthed in St. Lucie County, including 40 for which there was no detailed data. Of those 40, many were not vacant land sales. For Martin County, 46 parcels were ground-truthed. By visiting each site, we were able to determine if the property should be included in the study.

Of the parcels eliminated, many were small residential sites not relating to the market study. Other parcels were eliminated due to errors in data relating to vacancy or clear evidence that sales were not "arm's length," for example those sales of $100.00, which may reflect a re-organization or a corporate sale to a subsidiary.

The following analyses are provided:

Parcel Size Analysis

	Max. Ac.	Min. Ac.	Avg. Ac.
St. Lucie County	37.94	0.23	4.21
Martin County	17.22	0.11	4.07

Sales Price Analysis

	Max. $/Ac	Min. $/Ac	Avg. $/Ac
St. Lucie County	$ 570,421.00	$ 39,203.00	$ 190,306.00
Martin County	$5,795,222.00	$ 37,736.00	$ 973,317.00

Sales by Land Use

	Industrial Parcels		Commercial Parcels		Residential Parcels	
	Avg. Ac.	Avg. Price	Avg. Ac.	Avg. Price	Avg. Ac.	Avg. Price
St. Lucie County	0.96	$ 86,250	2.36	$ 23,140	21.94	$ 419,750
Martin County	0	0	1.85	$ 781,320	7.99	$ 1,116,400

Sales by Jurisdiction

	Industrial Ac.	Commercial Ac.	Residential Ac.
St. Lucie County	0	1.91	0
Martin County	0	11.11	23.96
City of Pt. St. Lucie	1.93	42.85	43.88

Countywide Vacant Land Comparison

	Industrial Ac.	Commercial Ac.	Residential Ac.
St. Lucie County[1]	6,475	1,535	9,362
	75.5% of Ind.	40.5% of Comm.	35.6% of Res.
	1.9% of Co.	0.5% of Co.	2.8% of Co.

Martin County[2]	3,716	1,064	28,193
	77.6% of Ind.	42.8% of Comm.	51.6% of Res.
	1.1% of Co.	0.3% of Co.	8.1% of Co.

[1] Source is the 1998 update of Comprehensive Plan.

[2] Source is the 9/00 update of Commercial and Industrial land uses and the 9/99 update of the Comprehensive Plan for Residential land use.

Attached are spreadsheets for each County which are based on the County Property Appraiser data. The columns provided include the parcel identification, transportation zone, acres of the properties, the local government jurisdiction, market value by the Property Appraiser, the date and value of the sale, the sale price per acre and the proximity of the parcel to US 1. The last column provides any noteworthy information that was obtained during the parcel research. The vacant property sales are shown on the attached US 1 Corridor Map.

While we had originally intended to track each parcel's time on the market, we have found that there in no available data for this information. No multiple listing databases are kept for commercial and industrial properties.

Treasure Coast Regional Land Use Study

Revised 10/2/01

Sales from 1999 to Receipt of Data

St. Lucie County Vacant Sales

	PARCEL NUMBER	TAZ	FLU	ACRES	JURISDICTION	TOTALVALUE	SALE DATE	SALE PRICE	SALEP RICE / AC	MKTSA	NOTES
1	342064506440006	306	COM	0.22957	PSL	$12,000.00	03/13/1999	$14,500.00	$63,161.56	0.50	New Office Construction. See Map Note #B
2	342064506450003	306	COM	0.68871	PSL	$54,000.00	03/13/2000	$27,000.00	$39,203.73	0.50	New Office Construction. See Map Note #B
3	342080500080006	308	COM	1.60518	PSL	$253,200.00	06/04/1999	$500,000.00	$311,491.55		
4	343534300010006	298	COM	20.22602	PSL	$130,300.00	02/19/1999	$1,600,000.00	$79,106.02	0.50	
5	343560100470001	297	IND	0.96284	PSL	$63,700.00	03/28/2000	$89,000.00	$92,434.88	0.50	
6	440160600020007	308	COM	1.27946	PSL	$272,600.00	07/30/1999	$400,000.00	$312,631.89	0.25	
7	341450119061007	291	COM	1.90750	SLC	$75,700.00	12/14/1999	$90,000.00	$47,182.18	0.50	
8	341450147160008	310	COM	5.21552	PSL	$293,300.00	02/12/1999	$335,000.00	$64,231.37	0.25	See Map Note #A
9	341450162010009	306	RES	5.93845	SLC	$90,700.00	04/30/1999	$99,500.00	$16,755.21	0.50	
10	341450162040000	306	RES	37.93907	SLC	$652,000.00	05/19/1999	$740,000.00	$19,504.96	0.25	See Map Note #C
11	342064506480004	306	COM	0.45914	PSL	$19,200.00	03/13/2000	$85,000.00	$185,128.72	0.25	See Map Note #B. Same as above?
12	342064506500001	306	COM	0.23005	PSL	$12,000.00	03/13/2000	$85,000.00	$369,484.89	0.25	See Map Note #B. Same as above?
13	342080500050005	308	COM	0.98092	PSL	$233,300.00	12/06/1999	$248,900.00	$253,741.39	0.25	See Map Note #E.
14	342252000080008	313	COM	0.48210	PSL	$105,000.00	05/01/2000	$275,000.00	$570,421.07	0.25	
15	343559000010006	297	COM	0.54592	PSL	$99,600.00	02/19/1999	$230,000.00	$421,307.15	1000.00	See Map Note #F.
16	343560100490005	297	IND	0.96639	PSL	$65,900.00	03/28/2000	$83,500.00	$86,404.04	0.50	
17	440171100020000	309	COM	0.99925	PSL	$267,400.00	07/30/1999	$316,300.00	$316,537.40	0.25	
18	440150100000001	309	COM	2.70666	PSL				$0.00		
19	441250600010007	310	COM	1.07469		$402,700.00	07/29/1999	$190,000.00	$176,795.17	1000.00	New Hollywood Videos
20	343582100010003	298	COM	0.57088	PSL						
21	343582100040004	298	COM	1.20833	PSL						
22	343582100050001	298	COM	1.99225	PSL						
23	343582100030007	298	COM	2.35816	PSL						

Martin County Vacant Land Sales

1	18-37-41-004-002-0001.1-700	404	COMlmt	0.602	MCO	$135,000.00	12/13/1999	$600,000.00	$996,677.74	0.25	notice of LU Change
2	18-37-41-004-002-0001.1-700	404	RESmf	2.554	MCO	$135,000.00	12/13/1999	$600,000.00	$234,925.61	1000.00	Sold with No.1 for single site.
3	19-37-41-000-000-0022.0-000	404	RESsf	17.686	MCO	$289,000.00	03/15/1999	$1,374,600.00	$77,722.49	0.25	Interior of Sunset Blvd. Properties. No apparent access. May have relationship with Nos. 4&5.
4	19-37-41-000-000-0022.0-000	404	RESsf	17.220	MCO	$289,000.00	03/15/1999	$1,374,600.00	$79,825.78	0.25	Interior of Sunset Blvd. properties. No apparent access. May have relationship with Nos. 4 & 5.
5	19-37-41-000-000-0024.1-500	404	RESsf	4.186	MCO	$154,155.00	03/15/1999	$1,374,600.00	$328,380.32	0.25	Due east of No. 3. For sale with No. 5.
6	19-37-41-001-001-0000.0-300	404	RESmf	2.488	MCO	$450,945.00	03/15/1999	$1,374,600.00	$552,491.96	1000.00	NW corner of Sunset & US1. For sale with No. 4.
7	19-37-41-001-001-0000.0-300	404	COM	5.138	MCO	$450,945.00	03/15/1999	$1,374,600.00	$267,536.01	1000.00	NW corner of Sunset & US1. For sale with No. 4.
8	19-37-41-006-000-0007.0-500	409	COM	0.106	MCO	$12,800.00	04/05/1999	$4,000.00	$37,735.85	0.25	Part of office/commercial condo.
9	29-37-41-000-000-0056.1-600	408	COM	4.975	MCO	$144,110.00	08/27/1999	$230,000.00	$46,231.16	0.25	Club.
10	32-37-41-022-000-0003.0-700	412	NO DATA	0.293	MCO	$47,919.00	05/01/1999	$1,698,000.00	$5,795,221.84	0.25	Part of Northshore Plaza parking area.

APPENDIX D

TRANSPORTATION STRATEGY SCREEN

Treasure Coast Regional Land Use Study
US 1 Corridor Strategy Screening
Level 1 Strategies

Strategy	Result	Conclusion
GROWTH MANAGEMENT/ACTIVITY CENTERS		
Land use policies/regulations		
1. Is significant land available for development?	**Yes.** There are many platted, vacant lots and other developable parcels, particularly within Port St. Lucie.	**Strategy is applicable.** There is sufficient vacant and redevelopable land within the corridor that land use policies and regulations could have applicability.
2. Is projected population and/or employment growth high?	**Yes.** Both population and employment are expected to increase substantially by 2025 within both counties. Much of that growth (especially population) will occur within the study area.	
3. Has the corridor been designated as a redevelopment or growth area?	**Yes.** Several CRAs have been established within the study area.	
4. Is the corridor's SOV share for work trips high?	**Yes.** A majority of work trips (>95%) occur in SOVs.	
5. Is the corridor's transit share for work trips low?	**No.** There is currently no fixed route transit service within the study area.	
6. Does the corridor pass the transit enhancement /expansion criteria?	**Yes.** The corridor passes this screen (in Level 2).	
7. Will alternative travel modes be available within the corridor?	**Yes.** Fixed route transit service is planned for the US 1 corridor. Other travel modes may also be implemented in the future.	
Design standards		

Strategy	Result	Conclusion
1. Is commercial office space being developed in the corridor?	**Yes.** The US 1 corridor does include increasing office and commercial development, particularly in Martin County.	**Strategy is applicable.** Encouraging design standards is an appropriate strategy for the corridor.
2. Are there pending building permits in the corridor? 3. (Also see Land use policies/regulations above.)	**Yes.** There is much active construction within the corridor.	
Locations of jobs and housing		
1. Is commercial office space being developed in the corridor?	**Yes.** The US 1 corridor does include increasing office and commercial development, particularly in Martin County.	**Strategy is applicable.** This strategy has potential application within the corridor.
2. Has the corridor been designated as a redevelopment or growth area?	**Yes.** Several CRAs have been established within the study area.	
CONGESTION PRICING		
Road user fees		
1. Is the v/c ratio on at least 70% of corridor freeway/arterial lane miles greater than 1.1 (or CMS threshold)?	**Potentially.** Depending on which future condition is analyzed, this threshold may be met for US 1.	**Strategy is not applicable.** Road user fees within the US 1 corridor would not likely be politically acceptable.
2. Is the answer to question 1 still affirmative if proposed roadway for congestion pricing is excluded?	**No.**	
3. Is a limited access facility available in corridor?	**Yes.** Both I-95 and the Florida Turnpike are located a few miles west of US 1.	

Strategy	Result	Conclusion
4. Are alternative travel modes available within the corridor?	**Yes.** Bicycle/pedestrian facilities and demand response transit service currently exist in the corridor. Fixed route transit service is planned for the US 1 corridor. Other travel modes may also be implemented in the future.	
5. Will revenues be used for transportation improvement projects?	**Yes.** Revenues from road user fees would likely be used for transportation improvement projects.	
6. Are tolls on the facility politically acceptable?	**No.** Tolls within the US 1 corridor would not be politically acceptable.	
Parking fees		
1. Are there primarily commercial or retail land uses in the congested area?	There are primarily retail land uses in congested areas along US 1.	**Strategy is not applicable.** Parking fees are very politically unpopular and there are few areas of concentrated parking (such as a downtown parking garage) where fee-based parking could be implemented.
2. Are there alternative travel modes available within the corridor?	**Yes.** Fixed route transit service is planned for the US 1 corridor. Other travel modes may also be implemented in the future.	
TRANSPORTATION DEMAND MANAGEMENT		
Telecommuting		
1. Is the type of employment at activity center/downtown suitable for telecommuting?	**Potentially.** There are a few employment centers in downtown Ft. Pierce and Stuart, and in St. Lucie West for which telecommuting may be viable.	**Strategy may have some applicability.** Telecommuting may be an option, but only with heavy promotion and education. Its overall impact on trip reduction is likely to be minimal.
2. Is public agency participation likely?	**No.** Public agency participation is not likely.	
Trip reduction ordinances		
1. See Employee Trip Reduction Ordinances strategies in Level 3.	**See Level 3.**	**See Level 3.**

US 1 Corridor Strategy Screening
Level 2 Strategies: Alternative (Non-Auto) Modes

Screening Question	Result	Conclusion
PUBLIC TRANSIT CAPITAL IMPROVEMENTS		
Exclusive ROW – Rapid Rail		
1. Will the corridor's net residential density be at least 12 dwelling units (d.u.) per acre, or alternatively, is the gross population density at least 8,600 persons per square mile?	**No.** Although several TAZs within Fort Pierce and Stuart are projected to exceed 8,600 persons per square mile, the study area as a whole will fall well below this threshold.	**Strategy not applicable.** The study area will not contain sufficient residential densities or employment centers in the year 2025 to support rapid rail transit.
2. Will the corridor's major employment area (downtown, activity center) have at least 50 million square feet of non-residential floor space?	**No.** Neither downtown Fort Pierce, Port St. Lucie nor Stuart will meet this threshold.	
3. Will the corridor's major employment area (downtown, activity center) have at least 70,000 employees?	**No.** Neither downtown Fort Pierce, Port St. Lucie nor Stuart will meet this threshold.	
4. Will the corridor's major employment area (downtown, activity center) have an employment intensity of at least 15,000 employees per square mile?	**No.** Neither downtown Fort Pierce, Port St. Lucie nor Stuart will meet this threshold.	

Screening Question	Result	Conclusion
Exclusive ROW – Commuter Rail		
1. Will the corridor's net residential density be at least 1 dwelling unit (d.u.) per acre, or alternatively, is the gross population density at least 350 persons per square mile?	**Yes.** A majority of TAZs in and adjacent to Fort Pierce and Stuart exceed this threshold. Several TAZs in the Port St. Lucie area meet this threshold.	**Strategy is applicable.** Given the projected relative density of Fort Pierce and the size of the three major employment destinations – West Palm Beach, Fort Lauderdale and Miami – at least a portion of the study area may be able to support commuter rail service by the year 2025.
2. Will the corridor's major employment area (downtown, activity center) have at least 75 million square feet of non-residential floor space?	**Yes.** Downtown West Palm Beach, Fort Lauderdale and Miami will exceed this threshold by the year 2025.	
3. Will the corridor's major employment area (downtown, activity center) have at least 150,000 employees?	**Yes.** Downtown West Palm Beach, Fort Lauderdale and Miami will exceed this threshold by the year 2025.	
4. Will the corridor's major employment area (downtown, activity center) have an employment intensity of at least 15,000 employees per square mile?	**Yes.** Downtown West Palm Beach, Fort Lauderdale and Miami will exceed this threshold by the year 2025.	
Exclusive ROW – Light Rail		
1. Will the corridor's net residential density be at least 9 dwelling unit (d.u.) per acre, or alternatively, is the gross population density at least 6,550 persons per square mile?	**No.** Residential densities within the corridor will not meet these thresholds through 2025.	**Strategy is not applicable.** The corridor will not contain sufficient residential or commercial densities by 2025 to support light rail.
2. Will the corridor's major employment area (downtown, activity center) have at least 20 million square feet of non-residential floor space?	**No.** This threshold will not be met within the corridor through 2025.	

Screening Question	Result	Conclusion
3. Will the corridor's major employment area (downtown, activity center) have at least 42,000 employees?	**No.** This threshold will not be met within the corridor through 2025.	
4. Will the corridor's major employment area (downtown, activity center) have an employment intensity of at least 10,000 employees per square mile?	**No.** This threshold will not be met within the corridor through 2025.	
Exclusive ROW – Busway		
1. Will the corridor's net residential density be at least 3 dwelling units (d.u.) per acre, or alternatively, will the gross population density be at least 1,900 persons per square mile?	**Yes.** Depending on future development patterns, it is likely that these thresholds will be met within the corridor by 2025.	**Strategy may be applicable.** Depending on future development patterns and resources dedicated to transit, a busway along US 1 may be a viable strategy.
2. Will the corridor's major employment area (downtown, activity center) have at least 20 million square feet of non-residential floor space?	**No.** This threshold will not be met within the corridor through 2025.	
3. Will the corridor's major employment area (downtown, activity center) have at least 42,000 employees?	**No.** This threshold will not be met within the corridor through 2025.	
4. Will the corridor's major employment area (downtown, activity center) have an employment intensity of at least 10,000 employees per square mile?	**No.** This threshold will not be met within the corridor through 2025.	

Screening Question	Result	Conclusion
5. Will the corridor have any sections with a volume to capacity (V/C) ratio of at least 0.80 with bus headways of 4 minutes or less in the peak hour?	**Potentially.** Several roadway segments will meet the V/C ratio threshold. Peak hour bus service frequencies will depend on the amount of resources dedicated to transit in the future.	
Bus Bypass Ramps		
1. Does the corridor pass the exclusive ROW busway screen?	**Yes.** The corridor passes the busway screen.	**Strategy is not applicable.** Even if a busway is implemented within the corridor, bus bypass ramps are probably not feasible.
2. Will the corridor have any exclusive busway sections? If yes, then go to question 5.	**Potentially.** As discussed above, implementation of a busway may be possible by 2025.	
3. Will the corridor have any HOV lane sections? If yes, are there 15 or more buses scheduled on any of these sections in the peak hour?	**Not Applicable.**	
4. Does the corridor pass the HOV lane screen?	**Not Applicable.**	
5. Does the corridor have any freeway sections with a V/C of at least 0.80 and 15 or more buses scheduled in the peak hour.	**No.** These conditions will not be met within the corridor.	
Fleet Expansion		
1. Does the corridor pass the service enhancement/expansion screen identified later in this table?	**Yes.** The corridor passes this screen.	**Strategy is applicable.**

Screening Question	Result	Conclusion
Vehicle Replacement/Upgrade		
1. Does transit service currently exist in the corridor?	**Yes.** Fixed route transit service is planned for the US 1 corridor. Other travel modes may also be implemented in the future.	**Strategy is not applicable.** Transit service and vehicle characteristics within the corridor do not support this strategy.
2. Is the corridor's transit mode share at least two percent for work trips?	**No.** The transit mode share for work trips is projected to be less than two percent through 2025.	
3. Does the corridor's number of transit vehicles in peak hour revenue operation exceed 20?	**No.** This condition will not likely be met within the corridor.	
4. For the transit operator's entire system, is the average age of the bus fleet greater than seven years, or is the average age of the rail fleet greater than 15 years?	**No.** The average age of the bus fleet is less than seven years.	
Transit Park and Ride Facilities		
1. Will transit service exist in the corridor?	**Yes.** Fixed route transit service is planned for the US 1 corridor. Other travel modes may also be implemented in the future.	**Strategy may be applicable.** If premium transit service is implemented within the study area, park and ride lots would be a viable strategy.
2. Will there be at least one express bus in the corridor with a one-way trip length of at least eight miles?	**Not known.** Although there are no current plans for express bus service, this may be a viable option by 2025.	
3. Will the corridor's HOV mode share be greater than 15% for work trips?	**No.** The corridor's HOV mode share will not be greater than 15% for work trips.	
4. Will there be rapid rail, light r ail or commuter rail service in the corridor?	**Potentially.** Depending on future development trends, commuter rail service may be viable within the corridor by 2025.	

Screening Question	Result	Conclusion
5. Does the corridor pass the HOV lane, rapid rail, light rail, commuter rail or exclusive ROW bus screens?	**Yes.** The corridor passes the commuter rail and busway screens.	
Other Intermodal Facilities		
1. Will there be any location in the corridor where there is not an existing intermodal facility and at least two of the following modes converge: rapid rail, light rail, commuter rail, exclusive ROW bus, express bus, local bus or intercity bus?	**Potentially.** If premium transit service (busway or commuter rail) or enhanced fixed route bus service is implemented within the corridor, intermodal transfer facilities would be needed.	**Strategy may be applicable.**
Paratransit Services		
1. Are there any areas in the corridor not currently served by paratransit?	**No.** All developed areas of both counties are currently served by paratransit.	**Strategy is not applicable.** Adequate paratransit service currently exists within the study area.
2. Will requests for paratransit service be denied because of capacity restrictions?	**No.** Capacity restrictions are not anticipated.	
Increased Transit Security		
Has the number of crimes related to transit service, or security-related complaints received by the transit agency serving the corridor, increased in each the last two years?	**Not Applicable.**	**Not Applicable.**
PUBLIC TRANSIT OPERATIONAL IMPROVEMENTS		
Service enhancement/service expansion		
1. Are there any routes for which the peak hour load factor is greater than 0.8?	**No.** There are no routes for which the peak hour load factor is greater than 0.8.	**Strategy may be applicable.**

Screening Question	Result	Conclusion
2. Is the population density of any zone or census tract in the corridor greater than 3,150 persons per square mile or the percentage of low income residents in the corridor greater than 20%.	**Yes.** There are several zones within the corridor which currently or are projected to meet these thresholds.	
Traffic Signal Preemption		
1. Will the corridor have transit service?	**Yes.** Fixed route transit service is planned for the US 1 corridor. Other travel modes may also be implemented in the future.	**Strategy may be applicable.** Depending on the level of future transit service investment, this strategy may be viable.
2. Will there be any routes for which the peak hour load factor is greater than 0.8?	**No.** There are no routes for which the peak hour load factor is greater than 0.8.	
3. Will the frequency of any of these routes be greater than six buses per hour (10 minute headway)?	**Potentially.** Depending on future transit service investments, this threshold may be met within the corridor.	
Fare reductions		
1. Is the transit mode split for work trips in the corridor greater than 0.8?	**Potentially.** Depending on future transit service investments, this threshold may be met within the corridor.	**Strategy may be applicable.**
2. Is the average population density in zones adjacent to these routes greater than 1,575 persons per square mile or the percentage of poor in these zones greater than 10%?	**Yes.** There are several zones within the corridor which currently or are projected to meet these thresholds.	

Screening Question	Result	Conclusion
Transit Information Systems		
1. Will the peak hour load factor on any route in the corridor be greater than 0.8? If yes, are there at least three transfer points on any of these routes?	**No.** There are no routes for which the peak hour load factor is greater than 0.8.	**Strategy may be applicable**, depending on the level of transit service ultimately provided within the study area.
2. Does the corridor have any transfer center serving at least three routes?	**Potentially.** If premium transit service (busway or commuter rail) or enhanced fixed route bus service is implemented within the corridor, intermodal transfer facilities would be needed.	
Transit Coordination		
1. Will there be at least two transit agencies/operators providing service within the corridor?	**Yes.** Both the Martin County and St. Lucie MPO 2025 Long Range Transportation Plans include fixed route transit service within the study area. There is also potential for implementation of Tri-Rail or Amtrak service in the study area by 2025.	**Strategy may be applicable**, depending on the level of transit service ultimately provided within the study area.
2. If yes, will the fare payment methods or the transit schedules be coordinated? (Negative answer implies potential application)	**Not known.** Local fixed route and Tri-Rail service is not currently in place.	
3. Are there at least four possible transfers within the corridor?	**Potentially.** Ft. Pierce, mid-St. Lucie County, Port St. Lucie, and Stuart could all serve as possible transfer points.	

Screening Question	Result	Conclusion
Transit Marketing		
1. Will there be at least one activity center with more than 500 employees in the corridor accessible by transit?	**Yes.** Depending on future development patterns, there could be several such transit accessible activity centers in the corridor by 2025.	**Strategy is applicable**. This strategy is appropriate for the corridor.
2. Will the difference in travel time between competing modes be less than 30 percent?	**Not known.**	
3. Can the transit system handle more patrons?	**Yes.** The transit system can handle more patrons.	
ADVANCED PUBLIC TRANSPORTATION SYSTEMS		
Intelligent Bus Stops		
1. Will the average population density in any of the zones within one quarter mile be greater than 1,575 persons per square mile or will the percentage of transportation disadvantaged in these zones be greater than 10 percent?	**Yes.** There are several zones within the corridor which currently or are projected to meet these thresholds.	**Strategy may be applicable**.
2. If yes, will the peak hour load factor in any route in the corridor be greater than 0.8?	**No.** There are no routes for which the peak hour load factor is greater than 0.8.	
ENCOURAGE THE USE OF NON-MOTORIZED MODES		
Bicycle Facilities		
1. Does the corridor have any jurisdictions with a bicycle plan?	**Yes.** Both the St. Lucie and Martin County MPOs have bicycle and pedestrian plans.	**Strategy is applicable.** Existing plans, work trips lengths and the presence of college

Screening Question	Result	Conclusion
2. Will at least 15 percent of the corridor's work trips be under five miles or 10 minutes in length?	**Yes.** Although impossible to know with certainty, it is likely that this threshold could be met by 2025, particularly given supportive development patterns.	campuses support provision of bicycle facilities within the study area.
3. Will the corridor have any rail or express bus service?	**Potentially.** There is the potential for initiation of Tri-Rail, Amtrak, or express bus service by 2025.	
4. Will the corridor's net residential density be at least 4.5 dwelling units per acre or, alternatively, will the gross population density be at least 3,150 persons per square mile?	**Yes.** Depending on future development patterns, it is likely that several zones will meet these thresholds by 2025.	
5. Will the corridor's employment density be at least 4,000 persons per square mile.	**No.** Although several zones may meet this threshold by 2025, most zones will not.	
6. Does the corridor have a college campus?	**Yes.** The study area includes the main (and a branch) campus of Indian River Community College as well as the developing FAU/FIU joint center.	
Bicycle Storage Systems		
1. Will the corridor have exclusive ROW bicycle facilities?	**Potentially.** It is possible that such facilities could be constructed by 2025.	**Strategy may be applicable.**
2. Does the corridor pass the bicycle facilities screen?	**Yes.** The corridor passes this screen.	
3. Will the corridor's bicycle mode share be at least 0.5% for work trips?	**No.** This threshold is not likely to be met by 2025.	

Screening Question	Result	Conclusion
Pedestrian Facilities		
1. Will the corridor have any rail or fixed route bus service?	**Yes.** Fixed route transit service is planned for the US 1 corridor. Other travel modes may also be implemented in the future.	**Strategy may be applicable.** Providing pedestrian facilities is an appropriate strategy for the corridor.
2. Will the corridor's net residential density be at least 4.5 dwelling units per acre or, alternatively, will the gross population density be at least 3,150 persons per square mile?	**Yes.** Depending on future development patterns, it is likely that several zones will meet these thresholds by 2025.	
3. Will the corridor's employment density be at least 4,000 persons per square mile.	**No.** Although several zones may meet this threshold by 2025, most zones will not.	
TRANSPORTATION DEMAND MANAGEMENT		
1. Will there be any kind of transit service in the corridor?	**Yes.** Fixed route transit service is planned for the US 1 corridor. Other travel modes may also be implemented in the future.	**Strategy may be applicable.**
2. Will there be any HOV lanes in the corridor or does the corridor pass the HOV lane screen?	**No.** There are no planned HOV lanes within the corridor.	
3. Will there be any park-and-ride lots in the corridor or does the corridor pass either the HOV or transit park-and-ride lot screen?	**Potentially.** Park-and-ride lots may be constructed by 2025, particularly if premium or enhanced fixed route transit service is implanted.	

US 1 Corridor Strategy Screening
Level 3 Strategies: High Occupancy (HOV) Lanes – US 1

Screening Question	Result	Conclusion
ENCOURAGE HOV USE		
HOV Lanes		
1. Are lane additions planned or under consideration for any freeway segments that already have three or more mixed-flow lanes in one direction?	**No.** No such lane additions are planned.	**Strategy is not applicable.** HOV lanes are likely not an appropriate strategy for US 1.
2. Are there any freeway segments of at least three miles with at least 70% of lane miles congested (v/c> 0.9)?	**No.** This condition is not projected to occur within the corridor.	
3. Are there any arterial segments of at least two miles with at least 70% of lane miles congested (v/c> 0.9)?	**Yes.** There are several arterial segments within the US 1 corridor which meet this threshold.	
4. Are there 10 or more buses scheduled in the peak hour for a single facility in the corridor?	**No.** There is currently no fixed route transit service within the corridor.	
5. Is there employment of 20,000 or more in the corridor's chief activity center?	**Yes.** This threshold will be met by 2025.	
6. Is the corridor's HOV mode share greater than 15% for work trips?	**No.** This condition is not met within the corridor.	
7. Does the corridor contain freeway, expressway, or rural principal arterial facilities that connect a residential area to an employment center?	**Yes.** The corridor contains several such facilities.	

Screening Question	Result	Conclusion
HOV Ramp Bypass Lanes		
1. Does the corridor pass the HOV lane screen?	**No.** The corridor does not pass the HOV lane screen.	**Strategy is not applicable.** This strategy is not applicable within the US 1 corridor.
2. Does the corridor contain other HOV incentives, such as HOV lanes or HOV toll discounts?	**No.** There are no such incentives existing or planned within the corridor.	
3. Is there ramp-metering in the corridor?	**No.** There is no ramp metering within the corridor.	
HOV Toll Savings		
1. Does the corridor have a toll facility?	**Yes.** The Florida Turnpike is located several miles to the west of US 1.	**Strategy is not applicable.** This strategy is not applicable within the US 1 corridor.
2. Is the corridor's HOV mode share greater than 15% for work trips?	**No.** This condition is not met within the corridor.	
HOV Park and Ride Lots		
1. Does the corridor pass the HOV lane screen?	**No.** The corridor does not pass the HOV lane screen.	**Strategy is not applicable.** This strategy is not applicable within the US 1 corridor.
2. Does the corridor contain other HOV incentives, such as HOV lanes or HOV toll discounts?	**No.** There are no such incentives existing or planned within the corridor.	
3. If park and ride lots exist in the corridor, is utilization greater than 50%?	**Potentially.** This condition may be met within the corridor.	
Guaranteed Ride Home Program		
1. Does the corridor pass the HOV lane screen?	**No.** The corridor does not pass the HOV lane screen.	**Strategy may be applicable.** This strategy may have some applicability within the

Screening Question	Result	Conclusion
2. Does the corridor contain other HOV incentives, such as HOV lanes or HOV toll discounts?	**No.** There are no such incentives existing or planned within the corridor.	corridor.
3. Are riedeshare matching services available or recommended below?	**Yes.** The corridor passes the rideshare screen.	
Employer Trip Reduction Ordinances		
1. Is the corridor already subject to an employer trip reduction ordinance?	**No.** The corridor is not subject to such an ordinance.	**Strategy is not applicable.** Employment and commuting characteristics within the corridor do not support this strategy.
2. Do 20% or more of employees in the corridor work for employers of 100 or more on-site employees?	**No.** Although impossible to know with certainty, this condition is not likely to be met within the corridor.	
3. Is the corridor's drive alone mode share at least 60% for work trips?	**Yes.** The corridor's drive alone mode share for work trips is greater than 60%.	
4. Is the corridor's transit mode share at least 2% for work trips?	**No.** Without major land use and transportation policy changes, this condition will not be met within the corridor.	
TRANSPORTATION DEMAND MANAGEMENT		
Rideshare Matching Services		
1. Does the corridor pass the parking management screen?	**No.** The corridor does not pass this screen.	**Strategy may be applicable.** This strategy may have some applicability within the corridor.
2. Are at least 60% of the corridor's work trips as least 9 miles?	**Yes.** Although impossible to know with certainty, this condition is likely already met within the corridor.	

Screening Question	Result	Conclusion
Vanpooling Programs		
1. Does the corridor pass the parking management screen?	**No.** The corridor does not pass this screen.	**Strategy is not applicable.** Employment and commuting characteristics within the corridor do not support this strategy.
2. Do 20% or more of employees in the corridor work for employers of 100 or more on-site employees?	**No.** Although impossible to know with certainty, this condition is not likely to be met within the corridor.	
3. Are at least 60% of the corridor's work trips at least 9 miles?	**Yes.** Although impossible to know with certainty, this condition is likely already met within the corridor.	

MAPS

Figure 1.1 – Study Area Map

Figure 2.1 – Vacant Land by Future Land Use Classification

Figure 3.5 – Community Centers Alternative Recommended Transportation Projects

Regional Land Use Study

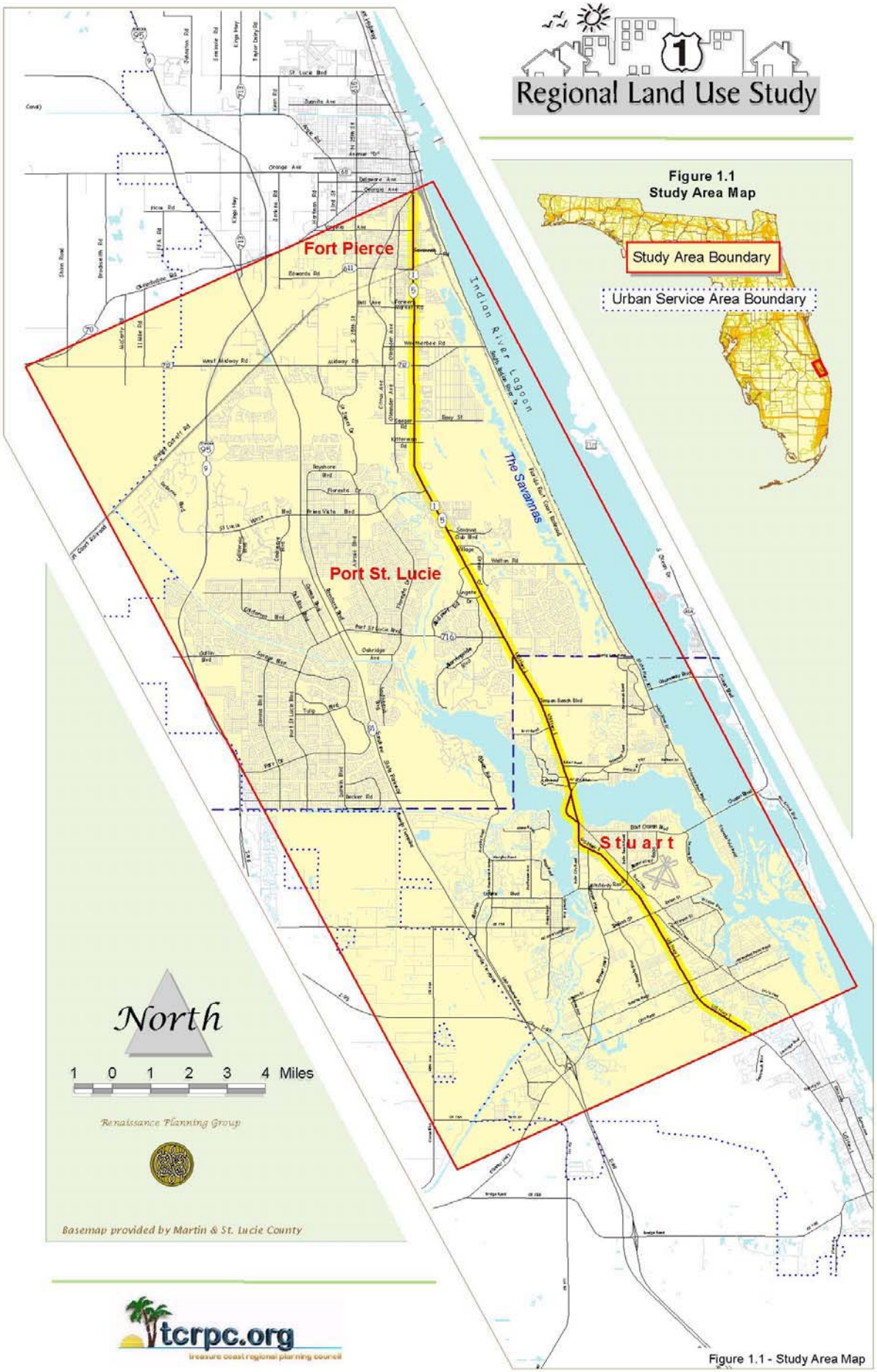


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Figure 1.1 - Study Area Map

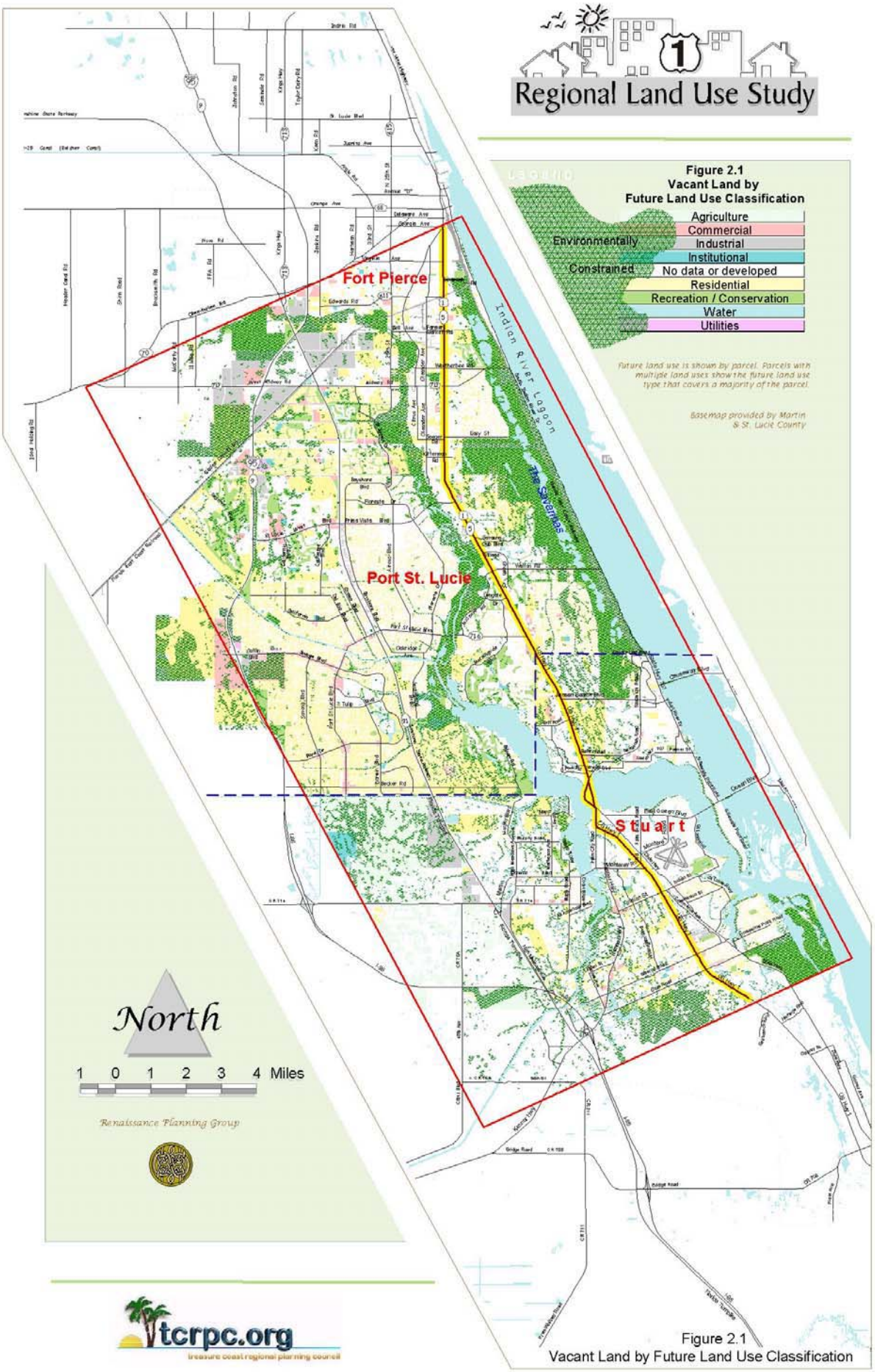

Figure 2.1
Vacant Land by Future Land Use Classification

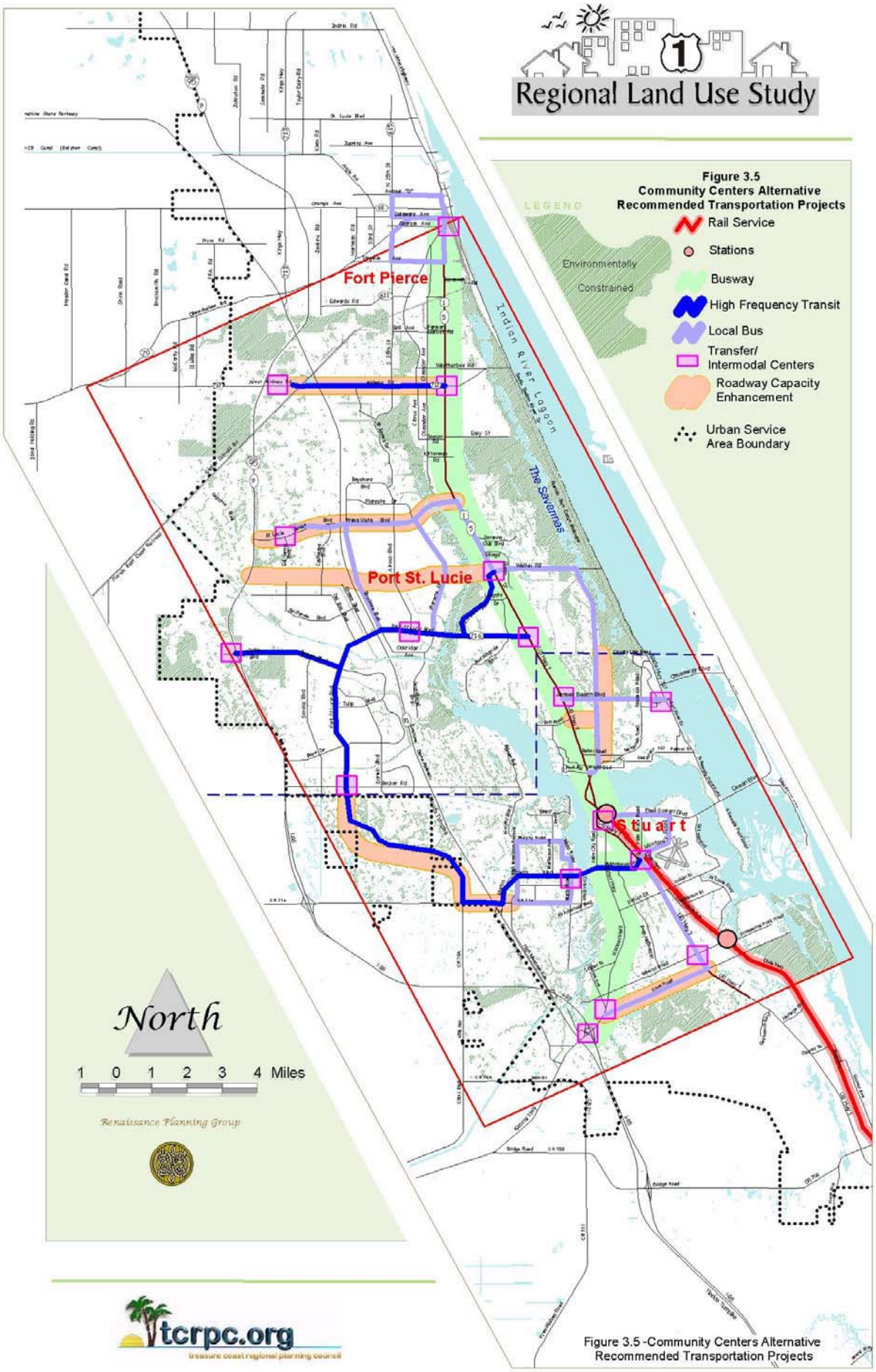

Figure 3.5 -Community Centers Alternative Recommended Transportation Projects