WESTERN GROVE

DEVELOPMENT OF REGIONAL IMPACT ASSESSMENT REPORT

TREASURE COAST REGIONAL PLANNING COUNCIL

INDIAN RIVER – MARTIN – ST. LUCIE – PALM BEACH

A DEVELOPMENT OF REGIONAL IMPACT ASSESSMENT REPORT

FOR

WESTERN GROVE

CITY OF PORT ST. LUCIE, FLORIDA

APRIL 2006

PREPARED BY:

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ABBREVIATIONS

The following abbreviations may be used in this report:

ADA	Application for Development Approval
BMP	Best Management Practice
CIE	Capital Improvement Element
Council	Treasure Coast Regional Planning Council
CSA	School District's Concurrency Service Area
DO	Development Order
DRI	Development of Regional Impact
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FFWCC	Florida Fish and Wildlife Conservation Commission
FDOT	Florida Department of Transportation
FPL	Florida Power and Light Company
FSUTMS	Florida Standard Urban Transportation Model Structure
GPD	Gallons per Day
HCM	Highway Capacity Manual
HUD	United States Department of Housing and Urban Development
ITE	Institute of Transportation Engineers
LOS	Level of Service
MGD	Million Gallons per Day
NCD	New Community Development District
NGVD	National Geodetic Vertical Datum
NPDES	National Pollutant Discharge Elimination System
PSL	City of Port St. Lucie
SF	Square Feet
SFWMD	South Florida Water Management District
SLC	St. Lucie County
SRPP	Strategic Regional Policy Plan
TAZ	Traffic Analysis Zone
TPS	Traffic Performance Standards
USFWS	United States Fish and Wildlife Service
WATS	Western Annexation Traffic Study

WESTERN GROVE DRI
REPORT AND RECOMMENDATIONS

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INTRODUCTION

This assessment of the Western Grove Development of Regional Impact (DRI) has been prepared by the Treasure Coast Regional Planning Council (Council) as required by Section 380.06(12), Florida Statutes and 9J-2.024(1), Florida Administrative Code (FAC). The primary purpose of the assessment report is to identify the regional impacts, both positive and negative, that can reasonably be expected to occur should the proposed project be approved. In carrying out this objective, the report through its recommendations, suggests opportunities to eliminate or mitigate negative impacts that are expected to occur and where possible to enhance the positive features of the proposed development.

The Western Grove Application for Development Approval (ADA) was originally submitted on September 27, 2004 and was supplemented with additional information submitted on February 17, 2005. The Western Annexation Traffic Study Final Report was completed in January 2006. On February 7, 2006 the City and the applicant were notified that the ADA for the Western Grove DRI has been reviewed by Council and found to have completed the informational sufficiency process pursuant to Section 380.06(10), Florida Statutes. The City was notified that the public hearing may be set for the proposed DRI pursuant to Section 380.06(11), Florida Statutes, and that Council will prepare the regional assessment report.

The series of recommendations contained in the Western Grove assessment report are based on the goals, strategies, and policies of the Strategic Regional Policy Plan (SRPP), adopted pursuant to Section 186.508, Florida Statutes. The recommendations of the Council are provided to assist the City in creating a development order (DO) for the DRI, consistent with 9J-2.025, FAC. This report and the recommendations are primarily directed at regional systems and facilities and do not necessarily address all local concerns. The recommendations do not foreclose or abridge the legal responsibility of the local government to act pursuant to applicable local laws or ordinances.

Once Council adopts the Western Grove DRI assessment report it is transmitted to the City. From there the City shall hold the public hearing that has been set for the proposed Western Grove DRI. At the hearing the City shall approve, deny or approve with conditions, restrictions, or limitations taking into consideration whether and the extent to which:

1. the development is consistent with local comprehensive plan and local land development regulations;
2. the development is consistent with the report and recommendations of the regional planning council; and
3. the development is consistent with the State Comprehensive Plan.

The City is required to render a decision on the proposed Western Grove DRI within 30 days after the hearing unless an extension is requested by the developer.

PROJECT INFORMATION

Project Name: Western Grove

Applicant: Tradition Development Company, LLC and Horizons St. Lucie Development, LLC

Jurisdiction: City of Port St. Lucie

Size: 1,593 acres

Location: On the east side of Range Line Road, about a quarter mile south of Glades Cutoff Road

Population: 10,153 persons

Employment: 1,736 permanent jobs

Uses: 4,062 residential dwelling units
365,904 SF retail
250,906 SF office

Buildout Date: 2020

Phases: 3 phases as described in the following table:

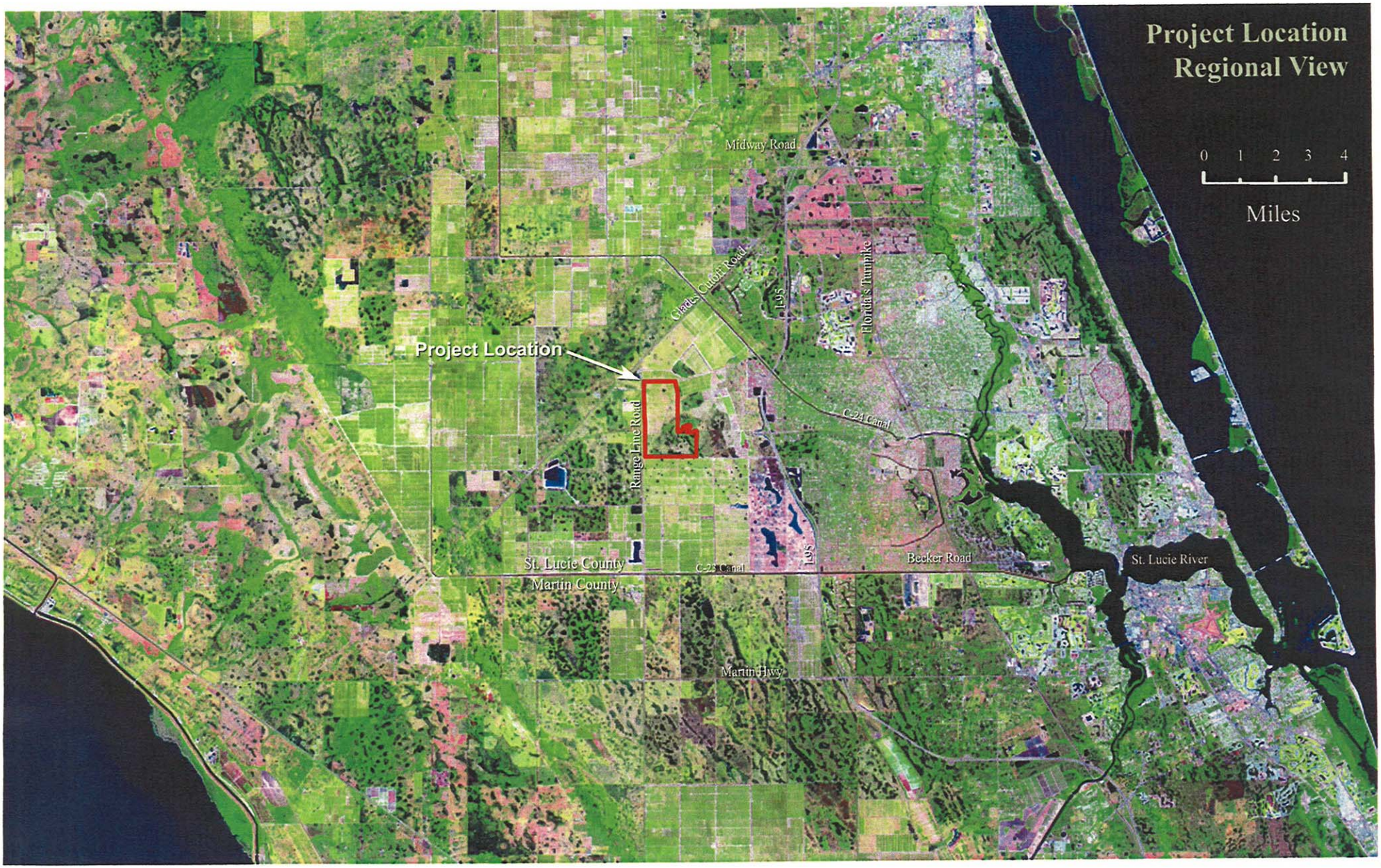
Phase	Years	Residential (DU)	Retail (SF)	Office (SF)
1	2006-2010	844	0	0
2	2011-2015	1,532	125,453	69,696
3	2016-2020	1,686	240,451	181,210
Total	2006-2020	4,062	365,904	250,906

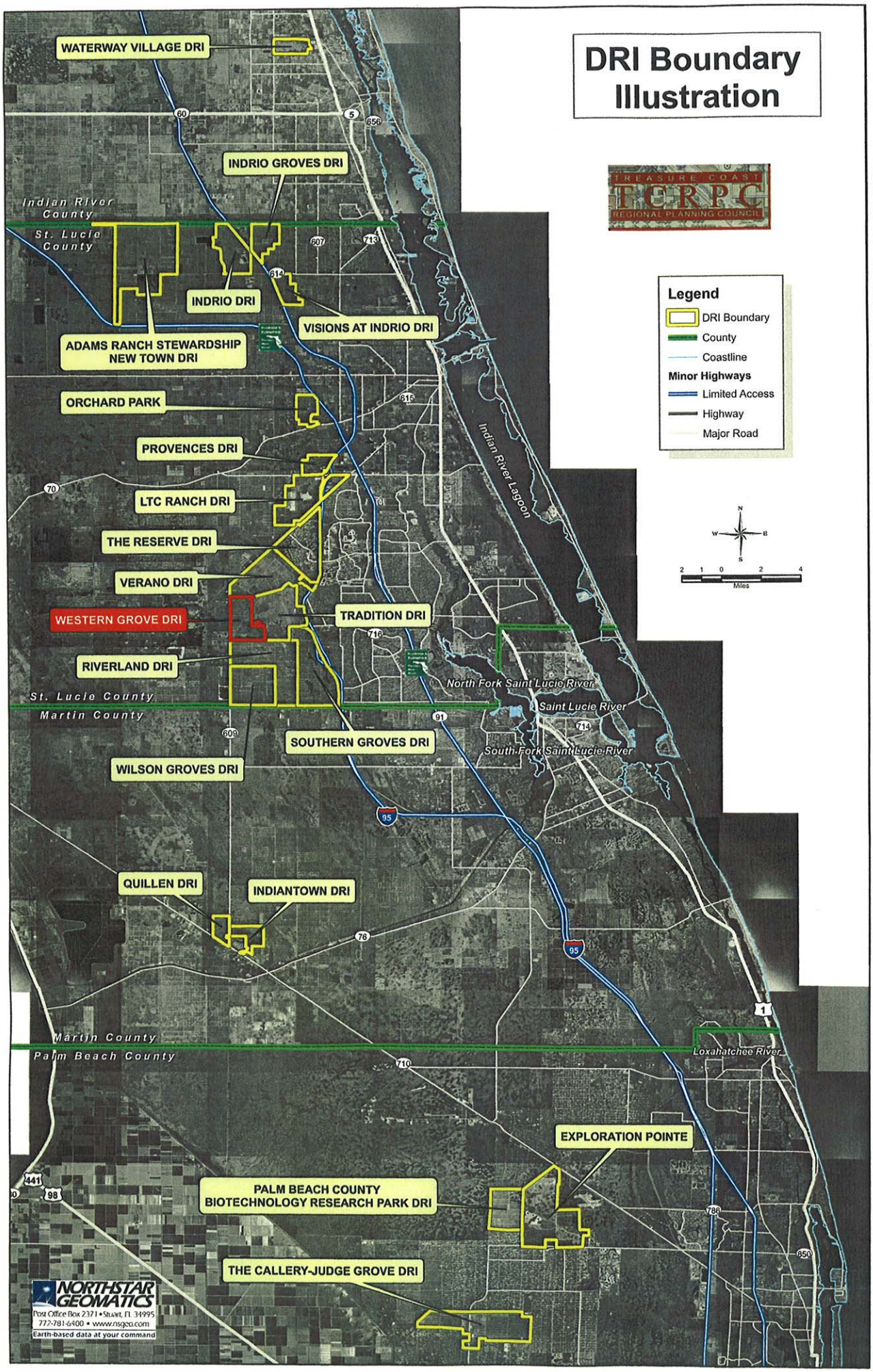
GENERAL PROJECT DESCRIPTION

The Western Grove DRI is a proposed mixed-use development on approximately 1,593 acres located in the western portion of the City of Port St. Lucie, Florida. The project site is located on the east side of Range Line Road, about a quarter mile south of Glades Cutoff Road. Currently, the site contains a mixture of native uplands and wetlands and agricultural uses, including citrus groves and improved pasture. The site is bounded by the Verano DRI (formerly known as the Montage DRI and PGA Village DRI) to the north, Tradition DRI to the east, Riverland/Kennedy DRI to the south, and by agricultural land to the west. Location maps and the proposed Master Development Plan are included on the following pages.

The Master Development Plan proposes two mixed-use neighborhood village centers surrounded by residential uses, civic uses, and conservation areas. The plan proposes a total of 4,064 residential dwelling units in a mix of single family, multi-family, town homes, and patio homes; 365,904 SF of retail; and 250,906 SF of office. Development is proposed to occur in three five-year phases with buildout in 2020. The City of Port St. Lucie Utility Systems Department will provide potable water and off-site treatment of wastewater for the project. The surface water management system will provide water quality treatment in on-site wet detention ponds prior to discharging into the Peacock Canal and ultimately the C-24 Canal.

The project site was annexed into the City in 2003. A subsequent amendment to the City's Comprehensive Plan designated 6,203.7 acres with a new Future Land Use Map category called New Community Development District (NCD). The land use density and intensity standards within the NCD land use designation allow a maximum of 12,500 dwelling units, 5.8 million square feet of commercial development and 500 hotel rooms. The City's goals and policies require all lands within the NCD land use designation to undergo DRI approval pursuant to Chapter 380, Florida Statutes, prior to development. The proposed development plan does not require an amendment to the City's Comprehensive Plan.


Project Location
Regional View
0 1 2 3 4
Miles
Midway Road
Glades Cutoff Road
I-95
Florida's Turnpike
Project Location
Range Line Road
C-24 Canal
St. Lucie County
Martin County
C-23 Canal
I-95
Becker Road
St. Lucie River
Martin Hwy



Project Location Map – Regional Context

Revised April 2006

DRAFT

Subject to modifications

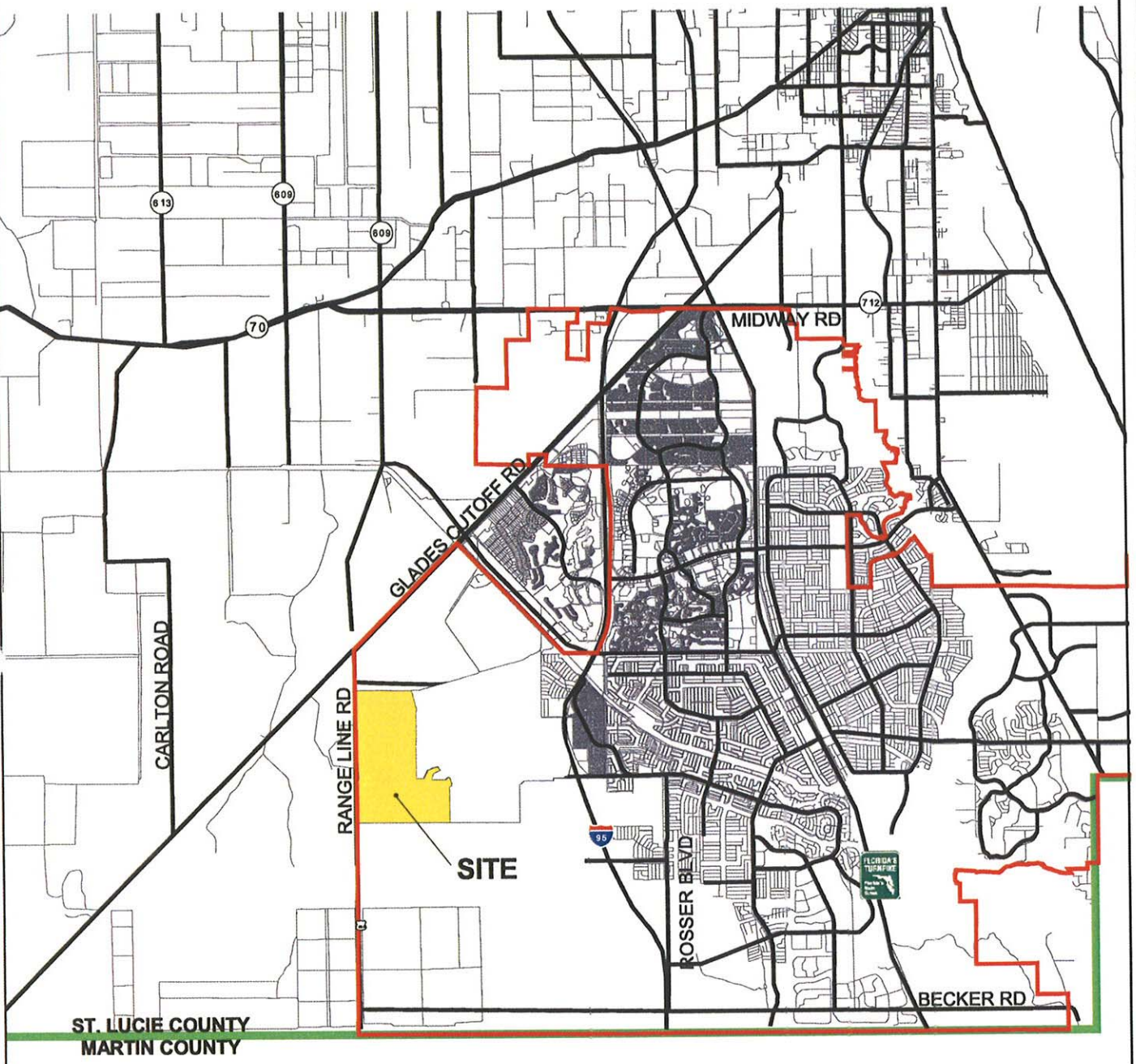
Summary of New and Recently Approved DRIs in the Treasure Coast Region

County/Project	Status	Acres	Residential Units	Hotel Rooms	Retail Sq. Ft.	Industrial Sq. Ft.	Office Sq. Ft.
Indian River County							
Waterway Village	Approved	696	1,740	0	30,000	0	0
County Subtotal		**696**	**1,740**	**0**	**30,000**	**0**	**0**
St. Lucie County							
Adams Ranch Stewardship	Pre-application	5,918	12,000	0	100,000	0	500,000
Indrio	Submitted	1,738	5,078	0	900,000	0	750,000
Indrio Groves	Submitted	1,026	3,000	0	0	0	0
LTC Ranch	Approved	2,455	6,500	0	725,000	1,960,200	1,508,500
Verano (fka Montage)	Approved	3,000	6,000	350	250,000	0	0
Orchard Park (fka West St. Lucie Farms)	Submitted	840	2,500	0	300,000	0	400,000
Provences	Submitted	733	3,350	350	1,225,000	0	500,000
Reserve	Approved	2,690	4,100	250	390,000	1,600,000	100,000
Riverland[1]	Submitted	3,719	11,700	0	1,100,000	2,722,500	0
Southern Grove	Submitted	3,606	7,388	500	2,164,061	1,999,404	2,073,238
Tradition	Approved	2,522	7,245	300	675,512	0	1,295,567
Visions at Indrio	Submitted	780	2,605	240	750,000	0	250,000
Western Grove	Submitted	1,585	4,063	0	213,400	0	164,000
Wilson Groves	Submitted	2,451	7,700	0	840,000	2,722,500	360,000
County Subtotal		**33,063**	**83,229**	**1990**	**9,632,973**	**11,004,604**	**7,901,305**
Martin County							
Indiantown	Submitted	804	1,800	0	15,000	0	15,000
Quillen	Pre-application	571	2,250	0	320,000	0	0
County Subtotal		**1375**	**4,050**	**0**	**335,000**	**0**	**15,000**
Palm Beach County							
Callery-Judge Grove	Submitted	3,872	10,000	150	1,400,000	3,000,000	600,000
Exploration Pointe (fka Vavrus Ranch South and Gardens Science & Tech. Community)	Submitted	4,763	9,982	300	644,000	2,770,000	350,000
Palm Beach Co. Biotech. Research Park	Approved	1,919	2,000	0	430,000	8,500,000	0
County Subtotal		**10,554**	**21,982**	**450**	**2,474,000**	**14,270,000**	**950,000**
Regional Total		**45,688**	**111,001**	**2,440**	**12,471.973**	**25,274,604**	**8,866,305**

[1] Includes Kennedy Groves

Highlighting indicates recently approved and proposed Western Annexation Area Developments of Regional Impact

WESTERN GROVE



Site Location

City of Port St. Lucie Boundary

County Boundary

Minor Roads

Major Roads

- Tradition Development Company, LLC — Owner
- Canin Associates, Inc. — Planning & Landscape Architecture
- Fishkind & Associates, Inc. — Economics
- EDC — Civil Engineers
- Pinder Troutman Consulting, Inc. — Traffic
- Ruden McCloskey — Legal
- Vanasse Hangen Brustlin, Inc. — Environmental

500 0 500 1000 1500 Feet

Map A
General Location Map

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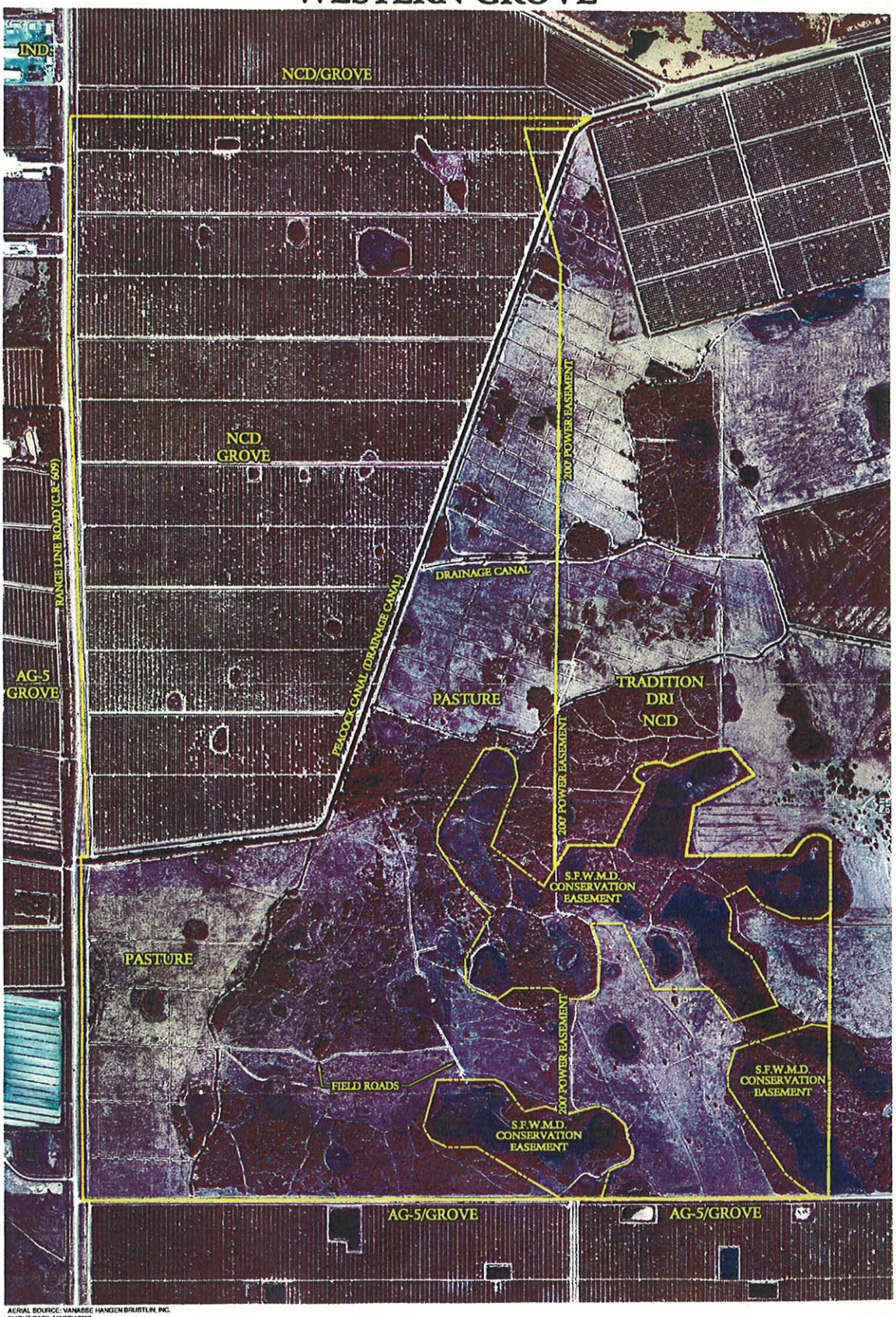
WESTERN GROVE



AERIAL SOURCE: VANASSE HANGEN BRUSTLIN, INC.
FLIGHT DATE: MARCH 2000

- Tradition Development Company, LLC — Owner
- Canin Associates, Inc. — Planning & Landscape Architecture
- Fishkind & Associates, Inc. — Economics
- EDC — Civil Engineers
- Pinder Troutman Consulting, Inc. — Traffic
- Ruden McClosky — Legal
- Vanasse Hangen Brustlin, Inc. — Environmental

500' 0' 500' 1000'

Map D
Existing Land Use Map

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Project Location Map – Immediate Vicinity

WESTERN GROVE

LEGEND

- RESIDENTIAL INCLUDING SCHOOL & SUPPORT FACILITIES , CIVIC,[1/] INSTITUTIONAL, PARK / RECREATIONAL, PLACES OF WORSHIP, CONSERVATION / MITIGATION
- NEIGHBORHOOD VILLAGE CENTER INCLUDING COMMERCIAL, OFFICE, INSTITUTIONAL, CIVIC,[1/] PARK / RECREATIONAL, RESIDENTIAL, PLACES OF WORSHIP, CONSERVATION / MITIGATION
- POWER SUB-STATION
- EXISTING RIGHT-OF-WAY
- PROPOSED MAJOR RIGHT-OF-WAY [2/]
- PROPOSED SECONDARY RIGHT-OF-WAY [2/]
- UTILITY EASEMENT
- STORMWATER MANAGEMENT [2/]
- OPEN SPACE / URBAN BUFFER
- CONSERVATION TRACT (CT-#) (UPLAND / WETLAND)

NOTES:

1/ CIVIC USES INCLUDE SCHOOL & SUPPORT FACILITIES AS WELL AS CULTURAL FACILITIES.

2/ PROPOSED RIGHTS-OF-WAY AND STORMWATER MANAGEMENT PONDS SHOWN FOR ILLUSTRATION ONLY. LOCATIONS SUBJECT TO CHANGE.

CONSERVATION TRACTS

LABEL	UPLAND	WETLAND	TOTAL
CT-1	15.33	16.20	31.53
CT-2	14.81	23.39	38.20
CT-3	62.78	76.02	138.80
CT-4	1.20	5.18	6.38
CT-5	2.34	9.99	12.33
CT-6	0.60	2.00	2.60
CT-7	1.30	4.11	5.41
CT-8	0.69	2.22	2.91
CT-9	0.97	3.74	4.71
CT-10	0.84	3.12	3.96
CT-11	0.99	2.27	3.26
CT-12	3.05	1.46	4.51
TOTAL	104.90	149.70	254.60

- Tradition Development Company, LLC — Owner
- Canin Associates, Inc. — Planning & Landscape Architecture
- Fishkind & Associates, Inc. — Economics
- EDC — Civil Engineers
- Pinder Troutman Consulting, Inc. — Traffic
- Ruden McClosky — Legal
- Vanasse Hangen Brustlin, Inc. — Environmental

500' 0' 500' 1000'

Map H (Revised)
Master Development Plan

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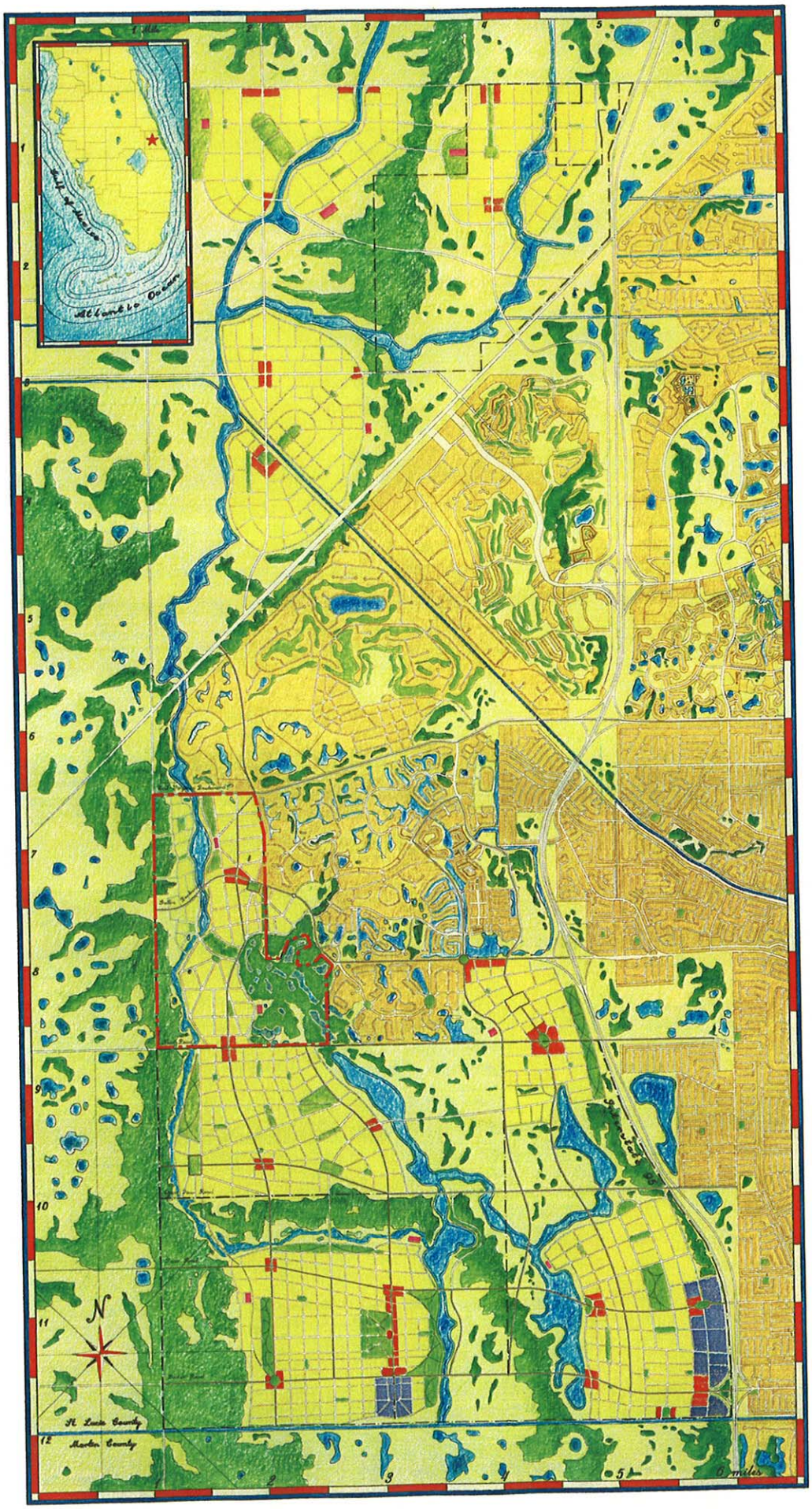


STRENGTHENING THE PHYSICAL STRUCTURE AND ORGANIZATION OF THE WESTERN GROVE DRI

STRENGTHENING THE PHYSICAL STRUCTURE AND ORGANIZATION OF THE WESTERN GROVE DRI

1/8 1/4 1/2 3/4 1 Mile

OVERVIEW OF WESTERN GROVE

Does anyone suppose that, in real life, answers to any of the great questions that worry us today are going to come out of homogeneous subdivisions and shopping malls?

- Jane Jacobs, *The Death and Life of great American Cities (1961)*

The proposed development program for the 1593-acre Western Grove DRI includes: 4,062 residential units, 365,904 square feet of retail, and 250,906 square feet of office. It is not so much the quantity of development proposed which should concern the City as much as: 1) how these uses are arranged and organized in the landscape to define its urban form; 2) how its relationship with the surrounding community can be improved; 3) how to utilize this development opportunity to correct certain limitations and deficiencies associated with existing land use patterns of the area; and 4) whether there will be adequate public facilities and infrastructure to support this development.

The project is important from a number of perspectives. First, it represents a chance for the City to correct certain limitations associated with its existing land use patterns. Second, it is one of the earlier increments of growth being considered in an otherwise undeveloped part of the countryside – a vast area being relied upon by the City to address some of its deficiencies, called the Western Annexation Area.

The City's Western Annexation Area consists of about 42 square miles of relatively undeveloped agricultural lands west of I-95. Two DRIs have been approved in the southern half of this area, Tradition and Verano. Four others, including Western Grove, are proposed (see Regional Context Map and Key).

These six DRIs at buildout will occupy more than half or 26 square miles of the Western Annexation Area, and will include: 44,096 residential units, 1150 hotel rooms, and 16, 580,182 square feet of retail and workplace space. With this magnitude of development, the City is in a one-time position to use the market forces and economics of growth to: 1) strengthen the City's urban form and address for business; 2) create highly livable neighborhoods; and 3) ensure superior job and educational opportunities for all residents.

The most fundamental elements of good urban form for a city are public streets and blocks. With the right combination of these elements, a detailed plan laying out public and private spaces, and the existence of other factors, good and identifiable neighborhoods and special mixed-use districts will form. These neighborhoods and districts become the building blocks of good, livable cities. These are the cities worth visiting more than once, the cities worth reinvesting in, the cities worth repeating, the cities worth saving – our most valuable and cherished places.

Although much of the City of Port St. Lucie was platted into residential lots with public streets and blocks, an insufficient amount of attention was paid to the need for public spaces and to the other factors which result in good neighborhoods. As a result, few identifiable neighborhoods have formed. The platting and sale of the residential lots has greatly complicated the opportunity to retrofit land uses. Sites are lacking for small commercial neighborhood centers, neighborhood parks, and other public and institutional uses which are important and help create identity for neighborhoods and great addresses for business.

In its current form, the Western Grove DRI "master development plan" fails to address these fundamental regional planning and urban design elements. The land development scheme for the project is represented by more of a concept plan. This plan offers no commitment to all of the positive features that are the result of an orderly system of streets and blocks. While the plan does propose a different mix of land uses and housing types than typically exists in comparable areas of the City, it suggests this project will build out as a series of isolated pods of development with little or no relationship to each other. The plan is overly vague and does not portray the type of authentic neighborhood structure that will contribute to the City's urban form and value. It is likely to create more problems rather than resolve existing ones that will be difficult to retrofit in the future.

Western Grove, by all accounts and by design, is not part of the City's fabric, but rather is an isolated "project." One of the unsustainable ideas behind projects is the very notion that they are projects, abstracted out of the ordinary city and set apart. To think of salvaging, regulating, or improving projects, is to compound this root mistake and foster growth by "projects," forever weakening the fabric of the City. The aim should be to get that project, the potential promise or "patch" of prosperity for the City, rewoven back into the fabric – and in doing so, strengthen the surrounding fabric as well.

The City is in a position to redirect the planning for this project to accomplish this goal. There is a great opportunity for the City to ensure there is a regular network of streets and blocks, and a detailed plan is prepared which results in self-contained neighborhoods and mixed-use districts which connect all the important components of public and private life (sites for homes, shopping, parks, jobs, schools, churches, civic use, etc.). In other words, correcting the problems of community design that plague the rest of the City.

Council's impact assessment report is provided to the City for its consideration of the Western Grove DRI. It includes a comprehensive evaluation of regional issues and 77 recommended Development Order conditions of approval designed to: 1) strengthen and detail the master plan to address some fundamental regional planning and urban design issues; 2) mitigate affordable housing and environmental impacts; and 3) assure that adequate public facilities and infrastructure related to transportation, schools, emergency public shelters, water, sewer, police and fire protection, solid waste disposal, water management, and parks and recreation, including the multijurisdictional issue of public beach and boat ramp access, are provided to support this development.

Growth is coming to the City of Port St. Lucie and the Treasure Coast Region. Where the next 25-year increment of this growth is located and the form it takes will have a profound affect on whether regional impacts and issues get addressed and on the quality of life for future generations.

CONCLUSION

To its credit, the City of Port St. Lucie has made good progress in strengthening their community and has always exercised great control of its future through its comprehensive plan. Regardless of the SRPP, the State Comprehensive Plan, other local plans, or any private sector plan, the City still maintains control of their plan and the right to choose its future. The choice this time is between two models or forms of growth: the traditional neighborhood and suburban sprawl. They are polar opposites in appearance, function and character. They look different, perform differently, create measurably different regional impacts, and are different in their capacity and ability to address regional issues (see Appendix K, Two Ways To Grow). For the Western Grove DRI it remains the City's choice of what form of development to approve.

The Western Grove DRI could be easily redesigned to be consistent with all elements of the SRPP (traditional neighborhood forms) and still deliver the positive fiscal and social impact the City and developer hope to achieve, without all the negatives of sprawl. There is a great opportunity for the City to ensure there is a regular network of streets and blocks, and a detailed plan is prepared which results in self-contained neighborhoods and mixed-use districts that connect all the important components of public and private life (sites for homes, shopping, parks, jobs, schools, churches, civic use, etc.). In other words, correcting the problems of community design, balance and serviceability that plague the rest of City.

If the City chooses to approve this DRI and require it to develop consistent with the SRPP's preferred form, Council's DRI assessment report provides a strategy and basic instructions to assist the City accomplish this task. If the City chooses suburban sprawl, the recommended DO conditions are simply designed to minimize regional impacts and reduce the damage associated with sprawl projects.

RECOMMENDATION

The Western Grove DRI assessment report contains a series of advisory recommendations for the City of Port St. Lucie based on the goals, strategies, and policies of the SRPP. These recommendations are made in response to the Western Grove master plan within the context of the SRPP. They are provided to address urban form issues, minimize project-related regional impacts, improve the project's capacity and ability to address regional issues, and to further implement the SRPP.

In its current form and given the current level of planning, the Western Grove DRI cannot be determined to be consistent with the SRPP. In response to this situation, the Western Grove assessment report makes suggestions for how the Western Grove master plan can be further detailed and improved to be consistent with the SRPP and further its implementation.

As proposed, the Western Grove DRI will also place additional demands and have regional impacts on the regional transportation system and other urban services, public facilities and infrastructure. Incorporation of conditions into a DO will provide assurance that regional impacts are mitigated.

If the City of Port St. Lucie chooses to approve the Western Grove DRI, it is recommended that, at a minimum, the conditions of approval contained in Council's DRI Assessment Report be included in the DO issued by the City of Port St. Lucie.

SUMMARY OF REGIONAL IMPACTS

During review of the proposed Western Grove DRI, Council identified several issues that will have significant impact on the City of Port St. Lucie and the Region. These issues are related to: 1) the master development plan, 2) transportation, 2) environmental and natural resources, and, 4) human resources. This section summarizes the impacts. The proposed general conditions of approval contained in this report are designed to reduce or mitigate the impacts to the Region.

MASTER DEVELOPMENT PLAN

"Until one is committed there is hesitancy, the chance to draw back, always ineffectiveness and underachievement"

- Johann Wolfgang von Goethe

Most comprehensive plans do not differentiate between acceptable and preferable development forms. Most take a regulatory approach to growth management, setting minimum standards and focusing on preventing the worst things from happening. This philosophy has often failed to result in sustainable or complete communities and limited the Region's ability to accomplish regional goals and resolve regional issues.

Although most comprehensive plans include outstanding policies to address development processes and impacts, no picture or vision was established for the community. No desired or preferred form of development was prescribed. This is a weakness which has partially undermined the intended effect of the policies to resolve problems and achieve goals identified by the community.

The SRPP is different. Council made a conscious decision that its plan for the Treasure Coast Region would overcome this inherent weakness and commit to a different approach. The Council was clear in that the Region should state a vision for the future, advocating ways to address its particular challenges and opportunities. Because of the magnitude and pace of growth expected in the Region, the Council established a principle focus for its regional planning and visioning efforts on the form and location of future development.

The most significant element of the SRPP is the Future of the Region or vision/urban form section. This element focuses on community structure and organization, urban form and patterns of development that do not sprawl. The reason for this is based on Council's conclusion that regional issues related to location, balance, mix and organization of residential types, work places and services (i.e. the built environment) will be critical to address if the Region is to accomplish its goals and sustain a high quality of life for its citizens. For example, urban form and development patterns have a profound regional effect on: 1) how often and how far we drive; 2) how much energy we use; 3) how long the regional roadway network will function; 4) how much air and water pollution we

generate; 5) how much the public must spend on public facilities and infrastructure; 6) how much land we use; 7) whether there is an adequate supply of affordable housing; 8) how successful we are at infill and redevelopment of our established towns and cities; 9) how competitive we are in attracting business and economic development; 10) how much public money we have to spend on education and care of the elderly and children; 11) how successful we are in implementing the Comprehensive Everglades Restoration Plan and restoring the Loxahatchee River, St. Lucie River, and Indian River and Lake Worth Lagoon systems; and many other important regional issues and concerns.

Right now the form or pattern of growth in the Region is represented by two types of development: traditional neighborhoods and suburban sprawl. They are polar opposites in appearance, function and character. They look different, perform differently, create measurably different regional impacts, and are different in their capacity to resolve regional issues (see Appendix K, Two Ways to Grow).

In its current form and current level of planning, the master development plan for the Western Grove DRI is overly vague and cannot be determined to be consistent with the SRPP. The land development scheme for the project is represented by more of a concept plan. This plan offers no commitment to a sustainable pattern or form of development. Based on the SRPP, it would be typified as suburban sprawl.

With that said, the Western Grove DRI could be easily redesigned to be consistent with all elements of the SRPP (traditional neighborhood forms) and still deliver the positive fiscal and social impact the City and developer hope to achieve, without all the negatives of sprawl. There is a great opportunity for the City to ensure there is a regular network of streets and blocks, and a detailed plan is prepared which results in self-contained neighborhoods and mixed-use districts which connect all the important components of public and private life (sites for homes, shopping, parks, jobs, schools, churches, civic use, etc.). In other words, correcting the problems of community design, balance and serviceability that plague the rest of City and a large part of the Region.

In response to this situation, the Western Grove assessment report contains recommended DO conditions that suggest how the Western Grove master plan can be further detailed and improved to be consistent with the SRPP and further its implementation. These recommendations are made in response to the Western Grove master plan within the context of the SRPP. They are provided to address urban form issues, minimize project-related regional impacts, improve the project's capacity and ability to address regional issues, and to further implement the SRPP.

TRANSPORTATION

"The cities will be part of the country; I shall live 30 miles from my office in one direction, under a pine tree; my secretary will live 30 miles away from it too, in the other direction, under another pine tree. We shall both have our own car. We shall use up tires, wear out road surfaces and gears, consume oil and gasoline. All of which will necessitate a great deal of work ... enough for all."

-Le Corbusier, The Radiant City (1967)

"...we shall solve the City Problem by leaving the City."

-Henry Ford (1922)

Proposed development for Western Grove DRI was included as part of the Western Annexation Traffic Study (Appendix I). This study, prepared as a joint effort between public agencies and private developers, evaluates traffic conditions due to the following Developments of Regional Impact: Western Grove, Southern Grove, Wilson Groves, and Riverland/Kennedy. The study was prepared in four five-year increments/phases with buildout dates in 2010, 2015, 2020, and 2025. Therefore, even though Western Grove has proposed three phases with buildout in 2020, the following conditions of development have been recommended up to the year 2025. Should the project be complete in the year 2020, conditions beyond this year would not apply.

The City of Port St. Lucie had not anticipated development within the Western Annexation Area as it was recently annexed into the City. This area, which is generally bounded by I-95, Range Line Road, Gatlin Boulevard, and the Martin/St. Lucie County boundary line, requires a significant number of new roads as no infrastructure had been planned for the area.

In addition to new roads required within the Western Annexation Area, other roadway modifications will be required to support the proposed development. Major modifications to the roadway network include, but are not limited to:

- Extension of Becker Road to the west to Range Line Road including an interchange with I-95.
- Extension of Paar Drive to the west to Range Line Road including an overpass across I-95.
- Construction of Crosstown Parkway (f.k.a. West Virginia Corridor) between Range Line Road and US-1 including an interchange with I-95.

Impacts to roadways within Martin County are also anticipated by projects within the Western Annexation Area given their close proximity.

The City of Port St. Lucie is working expeditiously and aggressively to complete interchange justification reports for the following interchanges of Becker Road and Crosstown Parkway with I-95. Once these interchanges have been approved by the

federal government, the City will begin construction. The traffic study assumes the interchange of Becker Road and I-95 is complete in the year 2010. The City is also working expeditiously to acquire the right-of-way necessary to build Crosstown Parkway.

Given the substantial magnitude of proposed development and the necessary modifications to maintain the roadway network at adopted levels of service, traffic monitoring has been recommended prior to the beginning of a new phase. Additionally, a traffic study is recommended should the project not be built by the year 2025.

The proposed development is expected to impact the level of service (LOS) on the regional roadway network. Rule 9J-2.045, FAC requires that state and regional roads be maintained at their adopted LOS. Mitigation through widening of roadways, expansion of intersections, and the provisions of adequate lane geometry is necessary to ensure that an acceptable LOS can be maintained on the regional roadways given the growth in the area.

Some factors may affect government's ability to maintain an acceptable LOS on the regional roadway network. Changes to the Florida Department of Transportation Adopted Transportation Improvement Program may expedite or delay construction of the required improvements to maintain adequate level of service on the regional roadway network. Rule 9J-2.045(7)(1)(b) FAC requires an assessment and report of the guaranteed improvements on no less than a biennial basis. This report needs to identify the timing of improvements to assure they will be constructed according to schedule.

On April 11, Council received a letter from the Florida Department of Transportation with recommended Development Order conditions for the Western Grove DRI. The conditions primarily deal with modal and design considerations. The City of Port St. Lucie is encouraged to consider the recommended conditions and incorporate them into the Development Order.

ENVIRONMENTAL AND NATURAL RESOURCES

Uplands

Citrus groves and improved pasture are the main land uses on the 1593-acre project site. The property contains 209.64 acres of native upland communities, including 192.90 acres of pine flatwoods and 16.74 acres of palmetto prairie. The applicant is proposing to protect 95.08 acres of native pine flatwoods in the twelve Conservation Tracts shown in the Western Grove Master Development Plan Map H. This represents protection of approximately 45 percent of all native upland plant communities on the project site, which is consistent with Council policy. The proposed plan exceeds Council's recommendation that a minimum of 25 percent of the native upland communities be protected on site. The recommended Development Order conditions include provisions for temporary fencing around the Conservation Tracts prior to commencing site clearing; preparation of a Conservation Area Management Plan; and removal of nuisance and

invasive exotic vegetation. The conditions also recommend that additional upland areas be protected to provide better linkages and connections between Conservation Tracts (Appendix J, Areas Recommended for Addition to the Conservation Tracts) and to provide additional nest site protection and foraging habitat for the Florida Sandhill Crane (see Listed Species).

Wetlands

The project site contains approximately 169.3 acres of wetlands, including freshwater marsh (127.38 acres), wet prairie (31.82 acres), hydric pine flatwoods (8.85 acres), and shrub wetland-Brazilian pepper (1.25 acres). The applicant is proposing to retain 149.7 acres of wetlands on the project site after development, including preservation of 119.07 acres of wetlands and enhancement of 30.63 acres of wetlands. The wetlands to be preserved and enhanced are all included in the twelve Conservation Tracts shown in the Western Grove Master Development Plan Map H. The plan includes the removal of 19.6 acres of wetlands. These wetlands are generally the lowest quality wetlands that have been degraded by agricultural activities. Mitigation for these wetlands has already been provided. All wetland impacts in a 14,640-acre area that includes the Western Grove DRI have been previously approved and mitigated for in Environmental Resource Permit No. 56-01544-P (Appendix B, South Florida Water Management District Impact Assessment Report for the Western Grove DRI).

Listed Species

Listed species identified on the project site include the Florida Sandhill Crane (State listed – Threatened), Crested Caracara (State and Federally listed – Threatened) , Little Blue Heron (State listed – Species of Special Concern), Tricolored Heron (State listed – Species of Special Concern), White Ibis (State listed – Species of Special Concern), American alligator (State listed – Species of Special Concern), gopher tortoise (State listed – Species of Special Concern), and water sundew (State listed – Threatened). The application indicates that no specific on or off-site mitigation is proposed at this time to protect state or federally listed wildlife or plants, other than the preservation and maintenance of the 12 Conservation Tracks shown on the Western Grove Master Development Plan Map H. The Conservation Tracts contain 254.6 acres, including 104.9 acres of uplands, and 149.7 acres of wetlands. Except for the Crested Caracara, the Conservation Tracts should provide valuable habitat for each of these species.

The main species of concern on the project site is the Florida Sandhill Crane. This species has been seen at widespread locations on the property. Cranes typically build their nests in herbaceous wetlands and forage in open prairies and grassy pastures. Evidence of nesting was detected in nine wetlands on the project site (see Appendix A, Sandhill Crane Nests Map). Cranes have been documented using a home range of 306 to 625 acres (Stys, B. 1997. Ecology of the Florida Sandhill Crane, Florida Game and Fresh Water Fish Commission Nongame Wildlife Technical Report No. 15). This document indicates that

habitat loss is one of the most serious problems facing Florida's population of Sandhill Cranes.

The Conservation Tracts will protect the most important Sandhill Crane nesting locations on the project site. However, the Conservation Tracts do not provide extensive open grassy areas, which Sandhill Cranes prefer for foraging. The Master Development Plan could be improved by providing additional foraging areas for Sandhill Cranes on the project site. The most suitable locations for additional foraging habitat, is to fill in the intrusions into the largest Conservation Tracts, and provide additional linkages and connections between wetlands known to be important for Sandhill Crane nesting (see Appendix J, Areas Recommended for Addition to the Conservation Tracts). In addition to providing foraging areas for Sandhill Cranes, these additions to the Conservation Tracts would provide an important buffer to the wetlands. This buffer would help to minimize disturbances to the Sandhill Cranes during the nesting season, and would also serve to improve the quality of stormwater draining into the wetlands in the Conservation Tracts. The areas recommended for addition to the Conservation Tracts in Appendix J are consistent with recommendations made in the South Florida Water Management District Impact Assessment Report for the Western Grove DRI (Appendix B). The District's report indicates that efforts should be made to increase the value of the preserved areas by providing upland connections between preserved wetlands, where possible, to minimize impacts to listed species.

Another species of concern is the Crested Caracara. This is a large raptor that historically occurred in open prairies in the central Florida. Most of the native prairies have been converted to pastures, where the Caracara is often found today. They typically nest in cabbage palm trees. Caracaras were not found nesting on the project site. However, the observations of this species suggest that nesting may occur west of Range Line Road, and that the west and north areas of the project site are in the home range of a breeding pair of Crested Caracaras. The South Florida Multi-species Recovery Plan prepared by the U.S. Fish and Wildlife Service (1998) indicates that the home range of the caracara may encompass an area of up to 5901 acres with an average of 3833 acres. The plan also indicates that habitat loss is the primary factor threatening this species. The proposed development is likely to displace the existing caracaras from the project site and will reduce the habitat available to them.

In addition to the species observed on the project site, it is likely that the Wood Stork (State and Federally listed – Endangered) forages for fish in the wetlands on this project site. The nearest known nesting colony of Wood Storks is on an island within the North Fork of the St. Lucie River, about nine miles to the east of the project site. The USFWS has indicated that maintaining the wetlands in an 18-mile radius around the nesting colony is critical for protecting this species. Therefore, it is recommended that there be no net loss of wetlands or foraging habitat on the project site. Creating shallow areas that will concentrate fish when water levels drop is a way of creating foraging habitat as part of the surface water management system. The recommended Development Order conditions require the provision of Wood Stork foraging habitat (see Appendix E, Wood

Stork Habitat Guidelines); maintenance of suitable foraging habitat for the Florida Sandhill Crane; and standard language concerning the protection of additional listed species in the event they are found on the project site.

Stormwater Management

The existing surface water features on the site include a series of isolated wetlands, a network of agricultural ditches, and the Peacock Canal. This canal bisects the property from approximately the southwest corner to the northeast and continues off-site where it discharges into the C-24 Canal (Appendix A, Pre-Development Drainage Plan Map). The entire project site drains into the Peacock Canal. The Peacock canal also provides drainage for property to the west of the Western Grove development.

The proposed surface water management system consists of a network of inlets, culverts, wet detention ponds, wetlands, and control structures (Appendix A, Post Development Master Drainage Plan Map). The wet detention pond system will discharge into the Peacock canal, which will be relocated to follow close to the western and northern property boundaries of the development. The relocated canal is proposed to meander within a buffer area adjacent to Range Line Road along the western boundary of the site. The Peacock canal will continue to provide drainage for property to the west of the Western Grove development. The proposed Community Development District will operate and maintain the proposed drainage system after completion of the development.

The application indicates that the quality of stormwater runoff will meet the requirements of South Florida Water Management District and the City of Port St. Lucie. The quality of post-development water leaving the site is expected to be as good as or better than the pre-development condition. Water quality control devices will cause the discharge of excess flow to occur at a later time than the pre-development condition, allowing for settlement of suspended solids and elimination of potential pollutants. The recommended Development Order conditions provide for the retention of maximum volumes of water on the project site; establishment of a water quality monitoring system to demonstrate that the Peacock Canal, C-24 Canal, and adjacent properties will not be negatively impacted by water from the project site; and the use of Best Management Practices to minimize the impact of chemical runoff associated with lawn and landscape maintenance.

Water Supply

Potable water will be supplied to the Western Grove development by the City of Port St. Lucie Utility Systems Department. The applicant has projected that the total potable water demand will be 1.158 million gallons per day (MGD) at build out. The utility currently has an adequate permitted allocation to meet the demands of this project.

The application indicates that non-potable water will be provided by using on-site surface water sources and continued use of permitted withdrawals from the C-24 Canal. The applicant has projected that the total non-potable water demand will be 1.055 MGD at

buildout. The South Florida Water Management District has indicated that the C-24 Canal allocation associated with the existing agricultural water use permit will not be automatically transferred to the new permit for the project's proposed landscape irrigation demands. The District will address this issue at the time of permitting.

The potential for re-use water is possible when the City of Port St. Lucie Utility Systems Department's Glades Wastewater Treatment Plant is completed in the future. The application indicates that the proposed system will be designed to utilize re-use water when it is made available by the City of Port St. Lucie Utility Systems Department. The recommended Development Order conditions include provisions requiring the use of treated wastewater effluent when it becomes available to the site, xeriscape landscaping, and other water conservation devices and methods.

Wastewater Management

Wastewater generated by the project at buildout is estimated to be 983,850 gallons per day. The City of Port St. Lucie Utility Systems Department will provide off-site treatment utilizing the new Glades Wastewater Treatment Plant along Glades Cutoff Road when it becomes operational. Service is anticipated to be available before the first phase of development is completed. Septic tanks are not proposed for the project.

Solid Waste and Hazardous Materials

The project as proposed will generate approximately 1,052 tons/year at the end of Phase 1; 2,169 tons/year at the end of Phase 2; and a total of 2,975 tons/year at project build-out. St. Lucie County Glades Road Landfill has indicated that it has capacity to provide the necessary services for the proposed development. Calculations by St. Lucie County Solid Waste Division indicate that sufficient capacity exists or will exist to support this project. However, Class 1 landfill capacity is projected to end in 2031. Similarly, construction and demolition debris landfill capacity is projected to end in 2019.

In addition there are no land uses that are anticipated to store, utilize or generate hazardous waste in excess of the Threshold Planning Quantity of an Extremely Hazardous Substance listed in the Federal SARA Title III Consolidate Chemical List.

Air Quality

The Florida Department of Environmental Protection (FDEP) *Guidelines for Evaluating the Air Quality Impacts of Indirect Sources* require that all LOS "E" or "F" intersections impacted by 5% or more project traffic and any surface parking area of 1500 vehicle trips per hour or a parking garage of 750 vehicle trips per hour be considered for air quality modeling for each phase of development as well as buildout. The traffic information provided in the original ADA did not include the Western Annexation Traffic Study. Upon completion of review of this study, FDEP will determine if an air quality analysis is

needed and, if required the parameters, intersections and/or parking facilities to be considered for the carbon monoxide analysis.

HUMAN RESOURCE ISSUES

Revenue Generation Summary

The Western Grove DRI is expected to generate ongoing revenue benefits to Port St. Lucie. The projected revenues generated by the DRI include ad valorem taxes, sales tax, utility taxes, gas taxes, permits, licenses, and impact fees.

At project buildout (2020), the project is estimated to generate over $8.9 million in recurring local revenue. This comprises approximately $3.1 million in ad valorem taxes and about $5.8 million in sales, franchise fees and gas taxes generated by the project.

Development of the project is expected to generate a need for approximately $33.6 million in capital facility outlays for roads, law enforcement facilities, parks and public buildings.

Total impact fee revenue from the project generated over the build out period of the DRI development is expected to exceed $7.6 million with the majority from roads, parks and law enforcement impact fees.

Fiscal Impacts

At build-out, the Western Grove DRI development is estimated to have a taxable value of $710.1 million. The applicant's fiscal impact analysis of the project estimates annual expenditures made by the City of Port St. Lucie on behalf of the residents and employees of the development to be $946,000 by 2010 and $6.9 million annually at build-out. These expenditures include general government services, police and transportation. These expenditures are contrast with projected revenues of $1.3 million by 2010 and $8.9 million at build-out, generating a net positive impact of $322,000 in 2010 and $2.1 million at build-out. The present value of this income stream for the City of Port St. Lucie over a twenty (20) year time period is $6.7 million.

The fiscal impacts to the St. Lucie County School Board are expected to be positive, or at least to have a zero net fiscal impact, over the long term with operating ad valorem taxes generated by the project reaching $815,000 in 2010 and will exceed $4.5 million at build out.

On the capital side, by 2010, the project will generate $294,000 in total capital revenue and recurring capital revenues will reach $1.7 million annually at built out. These revenues are contrast with projected capital expenditures of $351,000 in 2010 and $ 1.7 million at build out. In addition, impact fee revenue of $11.89 million will have been

calculated by build out. The net present value of project's capital fiscal impact on the School Board approaches $5.0 million.

Housing

The Western Grove DRI is designed as a 4,063 dwelling unit master-planned community, including two mixed use neighborhood village centers which will include commercial, office and multifamily residential uses. The applicant indicates the residential portion of the total project will include housing of various densities and price ranges including single family, multi-family, town homes and patio homes. Higher residential densities will be focused in the Neighborhood Village Centers.

The Western Grove DRI is expected to create approximately 1,736 new full-time jobs on site by 2020. This level of permanent employment will, in turn, generate a demand for some 700 housing units spread across very low, low and moderate income households as illustrated. The applicant's analysis suggests worker households can afford to purchase a home or rent an apartment based upon the following affordability thresholds:

Applicant's Housing Demand and Affordability Thresholds

Income Group	Demand	Maximum Income Limits[1]	Affordability Thresholds[2]	
			Purchase Price	Rent
Very-low	183	$25,400	$102,248	$706
Low	290	$40,640	$163,597	$1,129
Moderate	227	$60,960	$245,395	$1,693
Total	**700**			

[1] HUD FY 2004 Median Family Income of $50,800 for Fort Pierce-Port St. Lucie MSA.
[2] Affordability limits for home prices (for-sale housing) and maximum rental rates by income group.

Staff has reviewed the analysis and has adjusted the affordability thresholds to reflect the standard definition of affordability as housing costs for mortgage or rental payments to be no more than 30% of the household's gross income. Additionally, the maximum income limits reflect the current 2006 Median Family Income for Port St. Lucie – Fort Pierce MSA. These adjusted affordability thresholds are:

TCRPC Housing Demand and Adjusted Affordability Thresholds

Income Group	Demand	Maximum Income Limits[1]	Affordability Thresholds[2]	
			Purchase Price	Rent
Very-low	183	$27,300	$72,000	$683
Low	290	$43,680	$140,000	$1,092
Moderate	227	$65,520	$231,000	$1,638
Total	**700**			

[1] HUD FY 2006 Median Family Income of $54,600 for Fort Pierce-Port St. Lucie MSA.
[2] Affordability limits for home prices (for-sale housing) and maximum rental rates by income group.

Out of the total residential development of 4,063 dwelling units, the developer suggests 3,249 single-family units will be priced in the $250,000 dollar range and 812 multi-family units will be priced in the $150,000 dollar range. No accommodation for rental apartments is indicated. If provided, the for-sale multi-family dwelling units would offset some of the affordable housing demand generated for moderate and low income worker households created by the Western Grove DRI. It is also worth noting none of the 3,249 proposed single-family dwelling units are affordable to any of the worker households of the Western Grove DRI.

The applicant concluded in its affordable housing needs analysis the supply of off-site available for sale and for rent housing units more than offsets the affordable housing demand generated by the non residential portion of the Western Grove DRI. Staff does not agree with the findings of the applicant's housing supply analysis that suggests a plentiful supply of for-sale and rental housing is available within a reasonably accessible distance to the project. First, the 2004 and 2005 hurricane seasons have greatly affected the existing housing stock of St. Lucie County. According to St. Lucie County Community Services, approximately 51,627 housing units sustained hurricane damage (31,930 single family; 4,666 multi family and 6,647 manufactured homes). This has greatly increased the need for affordable workforce housing. Second, rental units have both increased in price and decreased in numbers available. As of March 14, 2006, a search of the Regional Multiple Listing Service (MLS) for St. Lucie County by St. Lucie County Community Services revealed a total of 640 rental listings available. This is far below the rental stock which the applicant projects to be available. Third, the Tradition DRI, immediately to the east of Western Grove DRI, found an insufficient inventory of rental housing in their ADA affordable needs analysis. For these reasons, staff has discounted the supply findings of the Western Grove DRI housing needs analysis and finds the overall affordable housing demand of 700 units generated by the project as unmet demand.

The unmet demand of 700 workforce housing units should be mitigated by providing these units onsite and in accordance with a development agreement to be drafted which will specify the phasing of delivery of the workforce housing units, affordability thresholds and standards, sales and rent prices, and on-going administration.

Schools

The Western Grove DRI proposes an entirely new residential and mixed-use development upon property currently utilized for agricultural purposes or maintained as native habitat. According to data provided in the ADA, the project proposes 4,061 new dwelling units on lands that historically were anticipated to yield roughly 160 dwelling units. Based on St. Lucie County's student generation rates, and 675 age restricted units, 4,061 units would be expected to generate approximately 1,300 new students as follows:

600 elementary school students
300 middle school students
400 high school students

The project's projected 1,300 new students is a radical departure from the School District's student populations historically associated with this area. According to current local and state policies, this will generate the demand for more than one-half of a new K-8 school and more than one-quarter of one new high school, representing unanticipated construction costs of approximately $40 million in addition to land and infrastructure costs, according to current School District estimates. These issues are discussed in greater detail below, and a copy of the School District's analysis, dated March 1, 2006, is included in Appendix B.

To accommodate the new students from the Western Grove DRI, state and local school requirements require the construction of one new K-8 school and one new high school. The School District has acquired a high school site in the vicinity of the Western Grove DRI; however, it has no K-8 sites to accommodate the project's impacts. Further, the District's five-year facilities plan includes no funding for the construction of either a new K-8 or high school in the area.

The Western Grove DRI anticipates the educational impacts of its development by generally including schools among the expected uses in its residential and neighborhood village center. The School District recommends one twenty-five acre K-8 site within the DRI, with a caveat regarding the need for the site's drainage to be accommodated off-site as part of a larger master drainage program. The site will also require infrastructure connections, including water and wastewater connections, stormwater, and roadway and pedestrian access.

It is important to emphasize the proposed DRI will require significant and extensive modifications for the St. Lucie County School District's current plans and population projections for this area. The School District's adopted Capital Construction Plan does not anticipate the impacts of the proposed development, and as a result, it has no funding sources for the planning, design, construction, or infrastructure provision for any of the new school sites necessary to support the impacts of the development. In its review of the proposed development, the School District states it has "exhausted all available capital

funding sources," and further, funds would either (1) need to be diverted from other planned projects, or (2) new revenue sources must be identified to fund the school facilities necessary to support the proposed development.

In its Comprehensive Plan, the City of Port St. Lucie anticipates the need for well-planned, sustainable development patterns, especially in new development areas designated as New Community Development (NCD) Districts. In Policy 1.1.3.1 of the Future Land Use Element, the City requires the development of residential land be timed and staged in conjunction with the provision of "supporting community facilities and services," including public schools. The Future Land Element also addresses NCD Districts, with goal 1.2 directing the City "to create large-scale, sustainable new communities with mixed uses." Under this section, Policy 1.2.2.2 calls for the co-location of schools and school sites with park, recreational, conservation, and residential uses. Policy 1.2.4.3 requires developers within the NCD District to coordinate with the School Board for "the provision of schools and school site(s) concurrent with the need for such facilities" via Developer Agreements and similar mechanisms to "finance, construct, operate, and maintain school facilities." The requirement that "development bears 100% of costs for public facilities necessary to service such development" is reiterated in Objective 9.1.2 of the City's Capital Improvements Element.

The SRPP includes several pertinent strategies on this issue that should be noted. Strategies 4.3.2 and 4.3.9 address the coordination school facilities with the impacts of development. These strategies would be furthered by the developer funding the capital costs for school facilities necessitated by the development itself.

The St. Lucie County School Board has indicated that the current 5-year work plan does not have revenue to construct the new schools. Accordingly, in reviewing the proposed development, the School District recommends the developer take the following actions:

(1) donate one 25-acre K-8 school site, provided that drainage for the school site be accommodated off-site as part of a larger master stormwater program

(2) adopt a development agreement with the St. Lucie County School District that assures the following financial contributions:

a. a proportionate share of all costs necessary for the construction of one new K-8 school (to accommodate the anticipated 600 new elementary school and 300 new middle school students)

b. a proportionate share of all costs necessary for the construction of one new high school (to accommodate the anticipated 400 new high school students)

The Western Grove DRI is proposed for development in three phases. Therefore, it is appropriate to assign these development costs per phase, given the proposed number of dwelling units in each. In Phase I, the applicant proposes 844 dwelling units which will produce the following student population according to current School District student generation rates:

School Type	Student Generation Rate per SF d.u.	Phase I Total Students (844 d.u.)	Typical # Students per School Type	% New Facility Costs to be Assigned to Developer in Phase I
Elementary School	0.190	160	1600	14.8%
Middle School	0.0903	76		
High School	0.122	102	2500	4.1%

Given current estimated costs for the construction of new school facilities in St. Lucie County[1], the developer would therefore be required to contribute approximately $8.5 million to the St. Lucie County School District to fund the proportionate share of impacts generated by Phase I of the proposed development. For all future phases of development, a similar cost breakdown would be calculated and assigned to the developer utilizing St. Lucie County School District student generation rates and the proposed number of dwelling units.

To off-set these developer contributions, the School District suggests the developer be reimbursed for school impact fees that would be otherwise required of the residential units constructed in the DRI. According to the current St. Lucie County impact fee schedule, the estimated impact fee credit for the 844 dwelling units proposed in Phase I is estimated to be approximately $4.2 Million in current year dollars[2]

A developer agreement between the St. Lucie County School District and the developer which assigns development costs as described above would be wholly consistent with the adopted City of Port St. Lucie Comprehensive Plan, School District Capital Facilities Plan, and Strategic Regional Policy Plan. Further, a direct financial contribution by the developer to fund the schools necessitated by the proposed development is the most appropriate mechanism to ensure the project's impacts will be mitigated without jeopardizing the ability for the School District to maintain projected capacities and facilities in St. Lucie County.

[1] According to current St. Lucie County School District estimates, the cost of new educational facilities in 2006 are as follows: K-8 School = $41 Million; High School = $65 Million. These figures would be adjusted by the School District for future phases of the development given cost escalations and inflation.
2 Current impact fees are $4,956 for single family and $2,536 for multi-family in St. Lucie County.

Police and Fire Protection

Police: No specific locations have been identified on-site for the provision for a new police or fire/rescue station. The applicant has indicated in the ADA they are working with the City of Port St. Lucie to develop a new police/fire/rescue facility in the Tradition DRI, immediately east of the project. It is anticipated this joint facility would provide future service to Western Grove. Staff has discussed this issue with the City of Port St. Lucie Police Department and has learned their new full service police station at 2950 SW Rosser Boulevard has the capacity and will serve the Western Grove DRI. The Police Department did, however, note they may have the need for a mini-station or stations within the project itself.

Fire: No specific location has been identified in the master plan for the provision of a fire station at this point. The applicant has indicated the proposed fire/rescue station to be developed in the Tradition DRI will serve Western Grove as well. St. Lucie County Fire District indicates in a letter to the applicant dated October 19, 2004 that the proposed Tradition station would only serve as the secondary response station for the Western Grove DRI. The Fire District's strategic plans for the area will require the applicant to provide property for a future primary fire station on site, and the equipment to outfit the station. Staff has confirmed with St. Lucie County Fire District their intention to negotiate a development agreement with the applicant which provides for all necessary facilities and equipment to meet the demand of the project.

Hurricane Preparedness

The proposed development is not within the Coastal High Hazard and Storm Surge zone within the City of Port St. Lucie, St. Lucie County. In the event of a significant hurricane (Category 3 or above), the proposal describes a strategy to lessen impacts on County shelter resources by encouraging residents to "shelter in place". However, with proposed development of 4,063 residential units (estimated 10,158 persons) there will be an increased need for public and special needs shelter space capacity. According to the 2003 Treasure Coast Regional Hurricane Evacuation Study, up to twenty percent (2,032 persons) of the development's population will evacuate. Approximately twenty percent (406 persons) of this group of evacuees will seek public shelter locally. St. Lucie County Emergency Management records indicate that 4678 persons stayed at shelters countywide during the 2004 season. In addition, 569 evacuees were sheltered at special needs shelters. Dividing the special needs number of evacuees by the number of regular shelter evacuees produces .122 special needs evacuees that occurred for every regular shelter evacuee. The DRI estimated special needs population is 50 persons at project build-out and will impact County special needs shelters significantly.

Parks and Recreation

Public Beach and Boat Ramp Access. In the Treasure Coast Region, user occasions for saltwater beach activities and saltwater boat ramps in 1997 were estimated to be

about 16 million and 930,000 annually. This demand/use is expected to increase by 2010 to nearly 21 million and 1.2 million, respectively.

The Western Grove DRI is located in proximity to both St. Lucie County and Martin County public beach access and boat ramp facilities. On average, the various publicly-owned facilities are nearly equivalent in actual mileage from the Western Grove DRI.

Because of proximity, a portion of residents from the Western Grove DRI will likely take the opportunity to use public beach access facilities and boat ramps in Martin County. In order to: 1) address this regional or multi-county impact; and 2) ensure this additional utilization does not degrade the level of service Martin County has set and adopted for these public facilities, a methodology and recommendation for assessing and mitigating this regional impact has been established as part of the Western Grove DRI Assessment Report.

The methodology is modeled after a standards-based, economic opportunity cost approach. This approach is the predominant impact fee method for determining facility costs that new growth imposes on public parks and recreation facilities, which include beach access sites and boat ramps. It spreads the cost of new public facilities across all new fee-paying residential units, whose future residents will have the opportunity to use the facilities over the life of the residential unit, regardless of whether particular future residents avail themselves of the opportunity. It is standards-based in that it relies on the current level of service provided by the service provider to calculate the new facility costs per capita and is designed to maintain that level of service as new growth occurs. In other words, if the number of residential units to be served were to double, the fee is designed to generate enough money to double service capacity, and thereby maintain the current level of service.

An assessment or fee designed to cover the capital costs of providing new public beach access facilities and boat ramps in Martin County is proposed to be charged to residential units in Western Grove. However, the fee will only be assessed on a portion of the total residential units. The portion of units to be assessed the cost per residential unit is based on the relative proximity of the DRI to the facilities in Martin County and to those in St. Lucie County, weighted by the number of facility units (beach access parking spaces/boat ramp lanes) in each County. In other words, if it is the same average distance from the DRI to the facilities in Martin County as to the facilities in St. Lucie County and there is the same number of facilities in each County, only half of the DRI's units will be assessed the cost per residential/hotel unit.

The methodology employed is conservative in a number of other ways:

- The cost per assessable residential unit does not cover operational costs, although it can be argued that future residents of the proposed St. Lucie DRIs should pay these costs as part of the assessment fee because they will not be paying annual property taxes to Martin County. Inclusion of operational costs would increase the fees about

55% for beach access and about 10% for boat ramps.

- The cost per parking space for beach access was minimized by assuming implementation of a new parking lot design with more parking spaces per acre than is currently the practice, and implementation of a new Martin County policy of purchasing cheaper property inland for parking and transporting visitors to the beach.

- The cost per boat ramp lane was minimized by assuming that an acre of land for boat ramps will accommodate more ramp lanes in the future than is currently the practice.

- Peak population, which includes visitors, was used instead of year-round permanent population, thereby spreading the total cost over a larger population and reducing the cost to each new permanent resident.

Below is a summary of the total assessment costs calculated and assigned to the proposed Western Grove DRI that would be paid to Martin County, by phase, based on the number of residential units proposed:

Western Grove

Phase I	$ 511,309
Phase II	$ 790,496
Phase III	$ 871,257
Total	$2,173,062

Below are the facility cost per residential unit (facility cost per capita x 2.5 persons per residential unit as proposed in DRI application) and the percentage of units to be assessed for the proposed Western Grove DRI for both beach access sites and boat ramps:

Western Grove

Beach Access Sites:

Facility Cost per Residential Unit	$340.63
% of Units Assessed	48.53%

Boat Ramps:

Facility Cost per Residential Unit	$682.93
% of Units Assessed	54.11%

Another way to express these figures is to calculate and assign these costs to each housing unit, rather than a percentage of them. For Western Grove, this calculation yields a cost of $165.31 per unit for beach access sites, and $369.53 per unit for boat

ramps. It should be noted that impact fees are not currently charged by St. Lucie County for public beach access or boat ramp facilities. St. Lucie County does not have an adopted level of service for these facilities in its local comprehensive plan. A detailed analysis of the methodology and calculations for determining multi-county impacts and appropriate transfer payments related to the potential use of public beach access facilities and boat ramps resulting from the Western Grove DRI can be found in Appendix O.

The impact fee/transfer payment method for mitigating regional impacts is one way of addressing this issue. Other ways may include: 1) the implementation of user fees by Martin County for public beach access and boat ramps; and 2) creation of an interlocal agreement between the City of Port St Lucie and Martin County that sets forth how costs would be shared by the two jurisdictions for expanding or developing new public beach access and boat ramp facilities in the area. The construction of the long-talked about bridge crossing to the barrier island in the vicinity of Walton Road would go a long way toward mitigating regional impacts related to public beach access.

Neighborhood Parks. The applicant indicates a series of small parks and trails within the various neighborhoods are planned. Approximately 405 acres of green space and 195 acres of water will be provided at build out for recreational purposes. The applicant does not however provide a detailed plan for the provision of active and/or passive parks to meet the demand for the anticipated 10, 153 residents at build out. The proper course of action is to determine the recreational demands of the future population and develop a plan to provide the recreational facilities and sites to meet the demand. A parks master plan based on a survey of recreational demands is an effective method of determining the types and sizes of parks and green space needed to meet future recreational demand. The City of Port St. Lucie's comprehensive plan contains a Level of Service at 5 acres of active recreation and park area per 1000 residents. This should be a minimum requirement of any parks master plan designed to identify and recommend how to meet future recreational demand on the Western Grove Development of Regional Impact.

Historic and Archaeological Sites

A cultural resource reconnaissance survey of the Western Grove property was conducted in 2005 (Appendix N, Cultural Resource Reconnaissance Survey). No archaeological or historical resources were identified on the project tract. The survey concluded there is low potential for the site to contain archaeological sites or cultural resources that might be significant or eligible for the National Register. A recommended Development Order condition requires construction to stop in the event of discovery of any archaeological artifacts. Proper protection is to be provided to the satisfaction of the City of Port St. Lucie and the Division of Historical Resources, Florida Department of State.

Energy

The total energy demand of the Western Grove DRI at buildout is estimated to be 455,056 kilowatt hours per day. The ADA includes a letter from Florida Power and Light Company (FPL) indicating that at present time they have sufficient capacity to provide electric service to the development. FPL also indicated there would be a need for an electric substation within the project site to serve the community. The substation facility would require a 3 to 5 acre site and should be located within the southwestern portion of the property, near Range Line Road. The recommended Development Order conditions require that a variety of energy saving methods be incorporated into the project.

GENERAL CONDITIONS OF APPROVAL

The Florida Department of Community Affairs rules require the Development Order to incorporate the Application for Development Approval by reference, recite the quantities of uses approved, phasing and buildout dates, provide a termination date, and provide for biennial reports. The expiration date should be set to allow reasonable time for completion of all development and compliance with all conditions in the Development Order. Enough time should be allowed between the buildout date and the expiration date for the developer to request any needed extension to the buildout date. These requirements can be met by including the following conditions in the Development Order:

Application for Development Approval

1. The Western Grove Development of Regional Impact Application for Development Approval is incorporated herein by reference. It is relied upon, but not to the exclusion of other available information, by the parties in discharging their statutory duties under Chapter 380, Florida Statutes. Substantial compliance with the representations contained in the Application for Development Approval, as modified by Development Order conditions, is a condition for approval.

   For purposes of this condition, the Application for Development Approval shall include the following items:

   a. Application for Development Approval dated September 27, 2004;

   b. Supplemental information dated February 17, 2005;

   c. Western Grove Cultural Resource Reconnaissance Survey dated March 10, 2005 (Appendix N); and

   d. Western Annexation Traffic Study Final Report dated January 2006 (Appendix I).

Commencement and Process of Development

2. In the event the developer fails to commence significant physical development within three years from the effective date of the Development Order, development approval shall terminate and the development shall be subject to further Development of Regional Impact review by the Treasure Coast Regional Planning Council, Florida Department of Community Affairs, and City of Port St. Lucie pursuant to Section 380.06, Florida Statutes. For the purpose of this paragraph, construction shall be deemed to have initiated after placement of permanent evidence of a structure (other than a mobile home) on a site, such as the pouring of slabs or footings or any work beyond the stage of excavation or land clearing, such as the construction of roadways or other utility infrastructure.

Phasing

3. The phasing of the Western Grove Development of Regional Impact is approved as follows:

Phase	Years	Residential (DU)	Retail (SF)	Office (SF)
1	2006-2010	844	0	0
2	2011-2015	1,532	125,453	69,696
3	2016-2020	1,686	240,451	181,210
Total	2006-2020	4,062	365,904	250,906

Buildout Date

4. The Western Grove Development of Regional Impact shall have a buildout date of December 31, 2020, unless otherwise amended pursuant to the conditions of this Development Order and Section 380.06, Florida Statutes.

Termination Date

5. This Development Order shall expire on December 31, 2027, unless extended as provided in Section 380.06(19)(c), Florida Statutes.

Transfer of Approval

6. Notice of transfer of all or a portion of the subject property shall be filed with the City of Port St. Lucie City Council. Prior to transfer, the transferee shall assume in writing on a form acceptable to the City Attorney, any and all applicable commitments, responsibilities, and obligations pursuant to the Development Order. The intent of this Provision is to ensure that subsequent property transfers do not jeopardize the unified control, responsibilities, and obligations required of the project as a whole.

Biennial Report

7. The biennial report required by subsection 380.06(18), Florida Statutes, shall be submitted every two years on the anniversary date of the adoption of the Development Order to the City of Port St. Lucie, Treasure Coast Regional Planning Council, Florida Department Community Affairs, and such additional parties as may be appropriate or required by law. The contents of the report shall include those items required by this Development Order and Rule 9J-2.025(7), Florida Administrative Code. The City of Port St. Lucie Planning and Zoning Director shall be the local official assigned the responsibility for monitoring the development and enforcing the terms of the Development Order.

General Provisions

8. Any modifications or deviation from the approved plans or requirements of this Development Order shall be made according to and processed in compliance with the requirements of Section 380.06(19), Florida Statutes and Rule 9J-2, Florida Administrative Code.

9. The definitions found in Chapter 380, Florida Statutes shall apply to this Development Order.

10. Reference herein to any governmental agency shall be construed to mean any future instrumentality that may be created or designated as a successor in interest to, or which otherwise possesses the powers and duties to any referenced governmental agency in existence on the effective date of this Development Order.

11. This Development Order shall be binding upon the developer and its assignees or successors in interest.

REGIONAL PLANNING

Master Development Plan

12. Prior to final approval of any zoning application in the Western Grove Development of Regional Impact, the City will require the developer to create a Master Development Plan to demonstrate conformance to the NCD (New Community Development) land use and clearly establish a better-integrated and well-planned mix of land uses that: 1) establishes the neighborhood and district as the fundamental units of development for creating the plan; 2) provides for a predictable network of streets and blocks; 3) reduces land consumed for development; 4) minimizes the public cost for providing services; 5) reduces dependency on the automobile; 6) encourages and accommodates public transit; 7) better addresses the special needs of children and the elderly; 8) incorporates a well-located system of parks, greens and civic sites; 9) reduces the area's vulnerability to natural or man-made disasters; 10) reduces impacts on the natural environment; 11) creates additional linkages and connections between Conservation Tracts (Appendix J, Areas Recommended for Addition to the Conservation Tracts); 12) reduces the need to consume energy; 13) provides for a variety of housing types to support residents of diverse ages, incomes, family sizes, and lifestyles; 14) provides for a highly interconnected network of walkable streets; and 15) demonstrates complementary and compatible land use relationships to adjacent properties related to scale, use, street networks, water management systems, and public open space and park systems.

    At a minimum, the Master Development Plan should be consistent with the following: 1) the goals, strategies and policies contained in the Strategic Regional

Policy Plan; 2) Appendix M, Components of the Traditional Urban Neighborhood – Authentic Mixed Use for DRIs; and 3) Diagram for Strengthening the Physical Structure and Organization of the Western Grove DRI.

Town Planning

13. To assure a mixed-use, compact, and pedestrian/bicycle-friendly environment, ready to accommodate all modes of public transportation, the developer will provide the following prior to any zoning approval within the Western Grove Development of Regional Impact:

    a. A Compendium of Street Sections should be established for this property to regulate allowable shapes and sizes of streets; placement of parking, street trees, street lights and furniture, and buildings and utilities; and pavement and sidewalk widths (for an example, see Appendix L, Compendium of Street Sections for the Western Grove Development of Regional Impact).

    b. Amendments to the Future Land Use category assigned to this property and a specific set of Land Development Regulations or Zoning Codes for the Western Grove Development of Regional Impact should be established to remove regulatory impediments that would interfere with building the Western Grove Development of Regional Impact consistent with the final Master Development Plan and regional recommendations contained in the Development of Regional Impact Assessment Report.

TRANSPORTATION

Rights of Way

14. No building permits for Western Grove Development of Regional Impact shall be issued after January 1, 2007 until right-of-way within the project along Tradition Parkway and all intersections thereof, has been dedicated free and clear of all liens and material encumbrances to the City of Port St. Lucie with a reservation unto the developer or community development district, for purpose of constructing and thereafter maintaining roads and other improvements, until acceptance by the City of Port St. Lucie.

15. Prior to the first building permit, the applicant shall donate sufficient right-of-way abutting Range Line Road to 100 feet from the center line of Range Line Road to be preserved for the implementation of the future regional corridor denoted in the area Long Range Transportation Plan (Citrus Highway/Research Corridor).

Phasing and Development Plan

16. For the purpose of the transportation recommendations, Western Grove Development of Regional Impact shall be divided into the following phases:

    Phase 1 – 2006 through 2010
    Phase 2 – 2011 through 2015
    Phase 3 – 2016 through 2020
    Phase 4 – 2021 through 2025

17. Prior to the initiation of Phases 2 through 4, as identified in the previous condition, a monitoring program shall be performed to ascertain the level of service on facilities where Western Grove Development of Regional Impact has significant impact (project is estimated to contribute an amount of traffic greater than or equal to 5% of the adopted service volume). The methodology of the monitoring program shall be agreed upon by the City of Port St. Lucie, St. Lucie County, Martin County, Florida Department of Transportation, and Treasure Coast Regional Planning Council. The monitoring program shall evaluate level of service at buildout of the relevant phase for each roadway segment significantly impacted by project traffic as well as all intersections at the end of significantly impacted roadways where total traffic is equal to or greater than 90% of the adopted service volume. Mitigation measures and/or modifications to the roadway network shall be identified in the monitoring program to ensure both roadways and intersections significantly impacted by project traffic will perform at the adopted level of service at buildout of the relevant phase. Monitoring programs shall be prepared in the years 2010, 2015 and 2020.

18. No building permits shall be issued after December 2010 until the development order has been amended accordingly to include mitigation measures and/or modifications to the roadway network identified in the monitoring program.

19. No building permits shall be issued after December 2015 until the development order has been amended accordingly to include mitigation measures and/or modifications to the roadway network identified in the monitoring program.

20. No building permits shall be issued after December 2020 until the development order has been amended accordingly to include mitigation measures and/or modifications to the roadway network identified in the monitoring program.

21. In accordance with Section 380.06(15)(c)5, Florida Statutes, changes to roadway improvement conditions which are subject to the monitoring program outlined in Conditions 17 and local traffic study included in Condition 39 shall not be subject to the substantial deviation determination/notice of proposed change process, unless otherwise required by the criteria listed in Section 380.06(b), Florida Statutes. Changes to roadway improvement conditions shall be transmitted for approval by the

Florida Department of Transportation, Florida Department of Community Affairs, and Treasure Coast Regional Planning Council.

External Roadways

22. As a minimum, the developer shall pay a fair share contribution consistent with the road impact fee ordinance of the City of Port St. Lucie and/or St. Lucie County, as appropriate, in effect at the time of issuance of building permits.

23. No building permits shall be issued after December 2010 until either: 1) contracts have been let to build the following roadways with the lane geometry presented below; 2) a local government development agreement consistent with sections 163.3220 through 163.3243, F.S. has been executed and attached as an exhibit to the Development Order; or 3) the monitoring program included in Condition 17 does not require these improvements. Surety shall be provided to the satisfaction of the City of Port St. Lucie that sufficient funds will be available to complete the following roadways:

    a) Road K in Map H (N/S A in the Western Annexation Traffic Study -WATS) from Tradition Parkway to Road E (E/W XY in WATS): 2 Lanes
    b) Road E from Road K to Village Parkway: 2 Lanes
    c) Village Parkway from Tradition Parkway to Crosstown Parkway: 4 Lane-divided
    d) Tradition Parkway from Road K to Village Parkway: 4 Lane-divided
    e) Tradition Parkway from Village Parkway to I-95: 6 Lane-divided
    f) Crosstown Parkway from Commerce Center Parkway to I-95: 6 Lane-divided

24. No building permits shall be issued for development that generates more than 1,202 net external p.m. peak hour trips or after December 2013, whichever comes last, until either: 1) contracts have been let for the following roadway widening; 2) a local government development agreement consistent with sections 163.3220 through 163.3243, F.S. has been executed and attached as an exhibit to the Development Order; or 3) the monitoring program included in Condition 17 does not require these improvements. Surety shall be provided to the satisfaction of the City of Port St. Lucie that sufficient funds will be available to complete the following roadway widening:

    a) Gatlin Boulevard from Village Parkway to I-95: 8 Lane-divided

25. No building permits shall be issued after December 2015 until either: 1) contracts have been let to build the following roadways with the lane geometry presented below; 2) a local government development agreement consistent with sections 163.3220 through 163.3243, F.S. has been executed and attached as an exhibit to the Development Order; or 3) the monitoring program included in Condition 17 does not require these improvements. Surety shall be provided to the satisfaction of the City of

Port St. Lucie that sufficient funds will be available to complete the following roadways:

a) Road K from Tradition Parkway to Glades Cut-Off Road: 2 Lanes
b) Crosstown Parkway from Range Line Road to Village Parkway: 4 Lane-divided
c) Crosstown Parkway from Village Parkway to Commerce Center Parkway: 6 Lane-divided
d) Crosstown Parkway from I-95 to California Boulevard: 6 Lane-divided
e) Crosstown Parkway from California Boulevard to Cashmere Road: 6 Lane-divided
f) Crosstown Parkway from Cashmere Road to Bayshore Boulevard: 6 Lane-divided

26. No building permits shall be issued for development that generates more than 489 net external p.m. peak hour trips or after December 2016, whichever comes last, until either: 1) contracts have been let for the following roadway widening; 2) a local government development agreement consistent with sections 163.3220 through 163.3243, F.S. has been executed and attached as an exhibit to the Development Order; or 3) the monitoring program included in Condition 17 does not require these improvements. Surety shall be provided to the satisfaction of the City of Port St. Lucie that sufficient funds will be available to complete the following roadway widening:

a) Road K from Tradition Parkway to Road E: 4 Lane-divided

27. No building permits shall be issued for development that generates more than 3,752 net external p.m. peak hour trips or after December 2016, whichever comes last, until either: 1) contracts have been let for the following roadway widening; 2) a local government development agreement consistent with sections 163.3220 through 163.3243, F.S. has been executed and attached as an exhibit to the Development Order; or 3) the monitoring program included in Condition 17 does not require these improvements. Surety shall be provided to the satisfaction of the City of Port St. Lucie that sufficient funds will be available to complete the following roadway widening:

a) Paar Drive from Rosser Boulevard to Savona Boulevard: 4 Lane-divided

28. No building permits shall be issued for development that generates more than 3,902 net external p.m. peak hour trips or after December 2016, whichever comes last, until either: 1) contracts have been let for the following roadway widening; 2) a local government development agreement consistent with sections 163.3220 through 163.3243, F.S. has been executed and attached as an exhibit to the Development Order; or 3) the monitoring program included in Condition 17 does not require these improvements. Surety shall be provided to the satisfaction of the City of Port St.

Lucie that sufficient funds will be available to complete the following roadway widening:

a) Paar Drive from Savona Boulevard to Port St. Lucie Boulevard: 4 Lane-divided

29. No building permits shall be issued for development that generates more than 567 net external p.m. peak hour trips or after December 2017, whichever comes last, until either: 1) contracts have been let for the following roadway widening; 2) a local government development agreement consistent with sections 163.3220 through 163.3243, F.S. has been executed and attached as an exhibit to the Development Order; or 3) the monitoring program included in Condition 17 does not require these improvements. Surety shall be provided to the satisfaction of the City of Port St. Lucie that sufficient funds will be available to complete the following roadway widening:

a) Road K from Tradition Parkway to Crosstown Parkway: 4 Lane-divided

30. No building permits shall be issued for development that generates more than 2,268 net external p.m. peak hour trips or after December 2023, whichever comes last, until either: 1) contracts have been let for the following roadway widening; 2) a local government development agreement consistent with sections 163.3220 through 163.3243, F.S. has been executed and attached as an exhibit to the Development Order; or 3) the monitoring program included in Condition 17 does not require these improvements. Surety shall be provided to the satisfaction of Martin County that sufficient funds will be available to complete the following roadway widening or the widening shall be included in the Martin County 5 Year Road Program or the State Transportation Improvements Program:

a) Range Line Road from Martin Highway to Becker Road: 4 Lane-divided

Roadways within Western Annexation Area

31. No building permits shall be issued after December 2010 until the roadways presented in Figure I (Appendix H) have been built to the following lane geometry:

Becker Road from Range Line Road to N/S A: 2 Lanes
Becker Road from N/S A to I-95: 4 Lane-divided
E/W 3 from N/S A to Community Boulevard: 2 Lanes
N/S A from Becker Road to E/W 3: 2 Lanes
Community Boulevard from Becker Road to E/W 1: 2 Lanes
Community Boulevard from E/W 1 to Gatlin Boulevard: 4 Lane-divided
Village Parkway from Becker Road to Gatlin Boulevard: 4 Lane-divided

32. No building permits shall be issued after December 2014 until the roadways presented in Figure II (Appendix H) have been built to the following lane geometry:

Becker Road from Range Line Road to N/S AB: Widen to 4 Lane-divided
Becker Road from N/S AB to I-95: Widen to 6 Lane-divided
Paar Drive from Range Line Road to N/S BC: 2 Lanes
Paar Drive from N/S BC to Rosser Road: 4 Lane-divided *
E/W 3 from Range Line Road to N/S A: 2 Lanes
E/W 3 from Community Boulevard to Rosser Road: 2 Lanes*
E/W 1 from Range Line Road to Community Boulevard: 2 Lanes
E/W 1 from Community Boulevard to Village Parkway: 4 Lane-divided
N/S A from E/W 3 to E/W 1: 2 Lanes
N/S A from E/W 1 to Gatlin Boulevard: 4 Lane-divided
N/S AB from Becker Road to Paar Drive: 2 Lanes
N/S B from Becker Road to E/W 1: 2 Lanes
N/S BC from Becker Road to Paar Drive: 2 Lanes
Village Parkway from E/W 1 to Gatlin Boulevard: Widen to 6 Lane-divided

* These segments include a bridge over I-95.

33. No building permits shall be issued after December 2018 until the roadways presented in Figure III (Appendix H) have been built to the following lane geometry:

Paar Drive from N/S A to N/S BC: Widen to 4 Lane-divided
Paar Drive from Village Parkway to Rosser Road: Widen to 6 Lane-divided *
E/W 3 from Community Boulevard to Rosser Road: Widen to 4 Lane-divided *
E/W 1 from E/W 1 to Community Boulevard: Widen to 4 Lane-divided
N/S A from Becker Road to E/W 1: Widen to 4 Lane-divided
Community Boulevard from Becker Road to E/W 1: Widen to 4 Lane-divided
Village Parkway from E/W 1 to Gatlin Boulevard: Widen to 8 Lane-divided

* These segments include a bridge over I-95.

34. No building permits shall be issued after December 2022 until the roadways presented in Figure IV (Appendix H) have been built to the following lane geometry:

E/W 3 from N/S A to Village Parkway: Widen to 4 Lane-divided
E/W 3 from Village Parkway to Rosser Road: Widen to 6 Lane-divided *
N/S AB from Becker Road to Paar Drive: Widen to 4 Lane-divided
N/S B from Paar Drive to E/W 1: Widen to 4 Lane-divided
N/S BC from Becker Road to Paar Drive: Widen to 4 Lane-divided
Village Parkway from Becker Road to E/W 1: Widen to 6 Lane-divided

* This segment includes a bridge over I-95.

35. Intersection lane geometry for all roads between I-95 and Range Line Road/Glades Cut-Off Road included in Figure IV (Appendix H), inclusive, shall include dual left-turn lanes and exclusive right-turn lanes in all approaches unless the monitoring program included in Condition 17, or the local traffic study included in Condition 39 indicates different lane geometry at the intersections.

36. A traffic study shall be prepared in the year 2019 to evaluate the need for an interchange along I-95 with E/W 3. The methodology for this traffic study shall be agreed upon by Council, St. Lucie County, City of Port St. Lucie, and the Florida Department of Transportation. The traffic study shall estimate traffic projections at buildout of all developments within the Western Annexation area.

37. No building permits shall be issued after December 2020 until the development order has been amended accordingly to include mitigation measures and/or modifications to the roadway network identified in the traffic study included in the previous condition.

Other Issues

38. A trip generation analysis shall be prepared by the applicant and approved by the City of Port St. Lucie prior to each site plan approval. The trip generation analysis shall present calculations for both a.m. and p.m. peak hour and shall be performed using trip generation rates included in the latest available Institute of Transportation Engineers Trip Generation Report. The trip generation analysis shall include internal capture and passer-by, if appropriate, to determine net trips generated by the development. The trip generation shall be cumulative and include all previous site plan approvals. Development order conditions shall be evaluated using the trip generation analysis to determine triggering of any transportation conditions.

39. During the site plan approval process, a local traffic study shall be submitted by the applicant to the City of Port St. Lucie to determine, as a minimum:

    a) Lane geometry for internal roadways and their intersections; and
    b) Timing of signalization improvements, if appropriate.

40. All roads mentioned in these transportation conditions shall be open to the public.

41. Commencing in 2008 and continuing every other year thereafter, the developer shall submit a Biennial Status Report indicating the status (schedule) of guaranteed transportation network modifications. This Biennial Status Report shall be submitted to the City of Port St. Lucie, St. Lucie County, Florida Department of Transportation, Council, and the Department of Community Affairs as part of the Development of Regional Impact Biennial Report.

    The Biennial Status Report shall list all roadway modifications needed to be constructed, the guaranteed date of completion for the construction of each needed

modification, the party responsible for the guaranteed construction of each modification, and the form of binding commitment that guarantees construction of each modification. Additionally, this report shall include a trip generation study determining new external traffic during the p.m. peak hour due to the existing development. The trip generation study shall be used to evaluate traffic conditions.

No further building permits for Western Grove Development of Regional Impact shall be issued at the time the Biennial Status Report reveals that any needed transportation modification included in the Development Order is no longer scheduled or guarantee, or has been delayed in schedule such that it is no guaranteed to be in place and operational, or under actual construction for the entire modification consistent with the timing criteria established in this Development Order.

42. Extensions to the buildout date for the Western Grove Development of Regional Impact shall not apply to any of the transportation conditions unless:

    a) a traffic study has been prepared to identify mitigation measures and/or modifications to the roadway network to ensure both roadways and intersections significantly impacted by project traffic will perform at the adopted level of service at the proposed buildout extension; and
    b) the development order has been amended to include these mitigation measures and/or modifications to the roadway network.

    The methodology for this traffic study shall be agreed upon by Council, St. Lucie County, City of Port St. Lucie, and the Florida Department of Transportation.

ENVIRONMENTAL AND NATURAL RESOURCES

Upland Preservation

43. The developer shall protect and maintain a minimum of 95.08 acres of native pine flatwoods in the twelve Conservation Tracts shown in the Western Grove Master Development Plan Map H. The continued viability and maintenance of the Conservation Tracts shall be assured through conservation easements granted to the South Florida Water Management District, a Community Development District, or other entity acceptable to the City of Port St. Lucie.

44. The developer shall install temporary fencing around the Conservation Tracts prior to commencing site clearing adjacent to the conservation areas. The fencing shall clearly identify and designate the boundaries of the Conservation Tracts and minimize the potential disturbance of the Conservation Tracts during land clearing and construction. The temporary fencing shall be established at least 15 feet outside of the boundaries of the Conservation Tracts and shall remain in place until the completion of the finish grading on the area adjacent to the fencing.

45. By January 1, 2007, the developer shall prepare a Conservation Area Management Plan for the Conservation Tracts, upland buffers, and retained wetlands identified on the Western Grove Master Development Plan Map H. The plan shall: 1) identify management procedures and provide a schedule for their implementation; 2) include procedures for maintaining suitable habitat for state and federally listed species; 3) include methods to remove nuisance and exotic vegetation and any other species that are determined to threaten the natural communities; and 4) include plans to permanently mark the conservation areas and allow only limited access for passive recreation, education, or scientific study. The management plan shall be approved by the City of Port St. Lucie in consultation with the U.S. Fish and Wildlife Service and Florida Fish and Wildlife Conservation Commission prior to commencement of site clearing activities on the project site.

Wetlands

46. The developer shall preserve and enhance the 149.7 acres of wetlands proposed for protection in the twelve Conservation Tracts shown on the Western Grove Master Development Plan Map H. The developer shall comply with all wetland mitigation requirements of the U. S. Army Corps of Engineers. Details of the wetland maintenance and enhancement procedures and management schedule shall be provided in the Conservation Area Management Plan.

47. The developer shall preserve or create a buffer zone of native upland edge vegetation around all preserved and created wetlands on site. The upland buffers shall be designed to be consistent with the buffer requirements of the South Florida Water Management District and City of Port St. Lucie. The buffer zones shall include canopy, understory, and ground cover of native upland species. Created upland buffers shall be planted in accordance with Section 153.25 of the City of Port St. Lucie Land Clearing Code. Details of the upland buffer maintenance and management schedule shall be provided in the Conservation Area Management Plan.

Listed Species

48. The developer shall maintain Wood Stork foraging habitat on site by ensuring no additional net loss of wetland function and value. All surface waters created on the site, where appropriate, shall include features specifically designed to provide preferred foraging habitat for this species. The developer shall comply with all U.S. Fish and Wildlife Service recommendations regarding the design and creation of foraging habitat for this federally endangered species (see Appendix E, Wood Stork Habitat Guidelines). Details of the wetland creation design, procedures, and management schedule shall be provided in the Conservation Area Management Plan

49. In order to protect the Florida Sandhill Crane, the developer shall maintain suitable foraging habitat in the form of relatively open grassland with interspersed stands of native pine flatwoods surrounding wetlands in Conservation Tracts CT-2, CT-3, CT-

7, CT-8, and CT-10 identified on the Western Grove Master Development Plan Map H. Details of the maintenance procedures and management schedule shall be provided in the Conservation Area Management Plan.

50. In the event that it determined that any additional representative of a state or federally listed plant or animal species is resident on, or otherwise significantly dependent upon the project site, the developer shall cease all activities which might negatively affect that individual population and immediately notify the City of Port St. Lucie. The developer shall provide proper protection to the satisfaction of the City of Port St. Lucie in consultation with the U.S. Fish and Wildlife Service and Florida Fish and Wildlife Conservation Commission.

Exotic Species

51. Prior to obtaining a certificate of occupancy for any future structure located on a particular development parcel, the developer shall remove from that parcel all Melaleuca, Brazilian pepper, Old World climbing fern, Australian pine, downy rose-myrtle, and any other nuisance and invasive exotic vegetation listed under Category I of the Florida Exotic Pest Plant Council. Removal shall be in a manner that minimizes seed dispersal by any of these species. There shall be no planting of these species on site. Methods and a schedule for the removal of exotic and nuisance species should be approved by the City of Port St. Lucie. The entire site, including wetlands and conservation areas, shall be maintained free of these species in perpetuity.

Stormwater Management

52. The developer shall design and construct a stormwater management system to retain the maximum volumes of water consistent with South Florida Water Management District criteria for flood control. All discharged water from the surface water management system shall meet the water quality standards of Florida Administrative Code Rule 17-3.

53. All elements of the stormwater management system shall be designed to prevent negative impacts to adjacent areas and to the receiving bodies of water. The developer shall establish a permanent water quality monitoring system to demonstrate that the Peacock Canal, C-24 Canal, and adjacent properties will not be negatively impacted by water from the project site. The proposed plans for the water quality monitoring system shall be approved by the City of Port St. Lucie in consultation with South Florida Water Management District prior to the construction of the surface water management system. Results of the water quality monitoring shall be included in the Development of Regional Impact biennial reports.

54. The developer shall work with the City of Port St. Lucie to minimize the amount of impervious surface constructed for automobile parking on the project site. The

developer and the City should consider the use of pervious parking lot materials where feasible.

55. The surface water management system shall utilize Best Management Practices to minimize the impact of chemical runoff associated with lawn and landscape maintenance. The developer shall coordinate with the South Florida Water Management District to formulate and implement Best Management Practices to reduce the use of pesticides and fertilizers throughout the project.

56. Maintenance and management efforts required to assure the continued viability of all components of the surface water management system shall be the financial and physical responsibility of the developer, a community development district, or other entity acceptable to the City of Port St. Lucie. Any entities subsequently replacing the developer shall be required to assume the responsibilities outlined above.

Water Supply

57. No residential subdivision plat shall be recorded nor final site plan approved for any development parcel until the developer has provided written confirmation from the City of Port St. Lucie Utility Systems Department that adequate capacity of treated potable water is available to serve the development parcel and the providing utility has service/distribution infrastructure that is either operational or guaranteed through surety, in a form acceptable to the City, to serve the development parcel.

58. The preferred source of irrigation water shall be treated wastewater effluent at such time as this source is made available to the site. The project shall be equipped with an irrigation water distribution system to provide reclaimed water to all domestic residential lots when it becomes available. No individual home wells shall be constructed on the project site. Prior to availability of a sufficient supply of reclaimed water, other water supply sources may be used for landscape irrigation subject to meeting South Florida Water Management District permitting criteria in effect at the time of permit application.

59. In order to reduce irrigation water demand, xeriscape landscaping shall be implemented throughout the project. At a minimum, the xeriscape landscaping shall meet the requirements of the City of Port St. Lucie.

60. The project shall utilize ultra-low volume water use plumbing fixtures, self-closing and/or metered water faucets, xeriscape landscape techniques, and other water conserving devices and/or methods specified in the Water Conservation Act, Section 553.14, Florida Statutes. These devices and methods shall meet the criteria outlined in the water conservation plan of the public water supply permit issued to the City of Port St. Lucie by the South Florida Water Management District.

Wastewater Management

61. No residential subdivision plat shall be recorded nor final site plan approved for any development parcel until the developer has provided written confirmation from the City of Port St. Lucie Utility Systems Department that adequate capacity for wastewater treatment is available to serve the development parcel and the providing utility has service/distribution infrastructure that is either operational or guaranteed through surety, in a form acceptable to the City, to serve the development parcel.

Solid Waste and Hazardous Materials

62. No residential subdivision plat shall be recorded nor final site plan approved for any development parcel until the developer has provided written confirmation from St. Lucie County that adequate solid waste disposal services and facilities will be available when needed. Development shall only occur concurrently with the provision of adequate solid waste disposal services and facilities.

Air Quality

63. No later than 180 days prior to the issuance of the first certificate of occupancy the Developer shall meet with the Florida Department of Environmental Protection to establish parameters for a Carbon Monoxide Air Quality Analysis. The analysis shall incorporate the methodology of the latest Florida Department of Environmental Protection guidelines and shall address worst case carbon monoxide concentrations for each phase through buildout for Level of Service "E" or "F" intersections and surface parking area of 1500 vehicle trips per hour or parking garage of 750 vehicle trips per hour.

64. No later than 90 days prior to the issuance of the first certificate of occupancy the Developer shall submit a Carbon Monoxide Air Quality Analysis, based upon the agreed methodology, to the Florida Department of Environmental Protection for review and approval. The analysis shall demonstrate that the National Ambient Air Quality Standards for Carbon Monoxide will not be violated as a result of this project and if necessary, shall include mitigation measures for which the Developer shall be responsible.

65. During land clearing and site preparation, soil treatment techniques appropriate for controlling unconfined particulate emissions shall be undertaken. If construction on a parcel will not begin within thirty days of clearing, the soil shall be stabilized until construction of the parcel begins. Cleared areas may be sodded, seeded, landscaped or mulched to stabilize the soil. Minimal clearing for access roads, survey lines, fence installation, or construction trailers and equipment staging areas is allowed without the need for soil stabilization. The purpose of this condition is to minimize dust production and soil erosion during land clearing and to prevent soil particulates from

becoming airborne between the time of clearing and construction. The development shall comply with all National Pollutant Discharge Elimination System requirements.

HUMAN RESOURCE ISSUES

Housing

66. The developer shall provide 700 workforce housing units on the Western Grove Development of Regional Impact. The required number of workforce housing units to be provided for each income level to meet the projected demand of 700 units is 175 Very Low Income, 280 Low Income, and 245 Moderate Income. One third of the required workforce housing units in the categories described in the table below shall be provided for in each phase of the project. By December 31, 2010, the developer shall provide a plan approved by the City of Port St. Lucie for carrying out the provisions of this Development Order Condition. At a minimum, the plan should describe: 1) how affordability will be maintained for a period of at least 15 to 30 years; 2) a program that would restrict the sale or resale of individual workforce housing units only to qualified households; 3) a program for setting resale prices for individual workforce housing units; 4) a formula for shared equity appreciation; and 5) the standards for affordability and all adjustments to the calculation of affordability. The provision or allowance of accessory apartments on individual building lots shall be counted towards meeting the requirement for the provision of Very Low Income workforce housing. Accessory units shall not be counted against the total number of units proposed for the Western Grove Development of Regional Impact.

Affordability[1] Threshold Calculation for Workforce Housing Units

Income Level	Income	(Rent)/Mortgage[2]	Affordability Thresholds[3]	
			Purchase Price	Rent
Very Low (< 50%)	$27,300	($683) $432	$72,000	$683
Low (50-80%)	$43,680	($1,092) $842	$140,000	$1,092
Moderate (80-120%)	$$65,520	($1,638) $1,388	$231,000	$1,638

[1] Housing that is affordable to families earning from 50% to 120% of the Area Median Income. Area Median Income is based on the most recent figures for the Port St. Lucie-Fort Pierce Metropolitan Statistical Area as reported annually by the United States Department of Housing and Urban Development. For 2006 the Port St. Lucie-Fort Pierce AMI was $54,600.

[2] Assumes 5% down, 6.5% interest, 30-year mortgage, and taxes and insurance at $250 monthly.

[3] 2006 affordability limits for home prices (for-sale housing) and maximum rental rates by income group based on a family of four. The sales prices and rental rates for workforce housing units should be recalculated annually for each household income level.

Schools

67. No residential subdivision plat shall be recorded nor final residential site plan approved for any development parcel until the developer has secured a development agreement with the St. Lucie County School District that assures the following activities:

    a. The dedication of one K-8 school site to the St. Lucie County School District of no more than 25 acres, provided that drainage for the K-8 school site can be accommodated off-site as part of a larger master stormwater program. The net acreage must not include any required upland or wetland preservation areas.

    b. For Phase 1, with a proposed development program of 844 dwelling units and current student generation rates for St. Lucie County, the developer shall contribute a proportionate share of all costs necessary to construct the following school facilities to be built according to current State of Florida and St. Lucie County School District standards and operated and maintained by the St. Lucie County School District:

        (1) 14.8% of all costs necessary to construct one new K-8 school (average size = 1600 students), including furniture, fixtures, and equipment; and

        (2) 4.1% of all costs necessary to construct one new high school (average size = 2500 students), including furniture, fixtures, and equipment.

    c. For all future phases of development, a similar breakdown of costs per facility type shall be calculated and assigned to the developer utilizing the proposed number of dwelling units and St. Lucie County School District student generation rates.

    d. The development agreement with the St. Lucie County School District shall provide for a formula for the reimbursement of educational impact fees that would normally be assessed of dwelling units within the proposed development.

    e. If at anytime during the development process, the City of Port St. Lucie creates its own charter school system, then no residential subdivision, or residential site plan shall be approved unless a proportionate share of the cost to construct the school is assessed to the developer.

Police and Fire Protection

68. No residential subdivision plat shall be recorded nor final site plan approved for any development parcel until the developer has received a statement from the City of Port

St. Lucie Police Department indicating that adequate facilities and police protection are in place to serve the development parcel. The methodology used to determine the demand created as a result of the project and the standards used to determine adequate police protection shall be approved by the City of Port St. Lucie Police Department.

69. No residential subdivision plat shall be recorded nor final site plan approved for any development parcel until the developer has received a statement from the St. Lucie County Fire District indicating that adequate facilities, equipment and emergency personnel are in place to serve the development parcel. The methodology used to determine the demand created as a result of the project and the standards used to determine adequate fire rescue services shall be approved by the St. Lucie County Fire District.

Hurricane Preparedness

70. The developer shall provide funds to the City of Port St. Lucie for the construction of 8,138 square feet of public hurricane evacuation shelter space for the residents of the Western Grove Development of Regional Impact. In order to ensure that shelter space is available at all times to meet demand, a minimum of 1,688 square feet of public hurricane evacuation shelter space shall be provided within one year of commencing Phase 1; a minimum of 3,064 square feet of public hurricane evacuation shelter space shall be provided within one year of commencing Phase 2; and a minimum of 3,376 square feet of public hurricane evacuation shelter space shall be provided within one year of commencing Phase 3. Emergency shelter requirements may be accomplished through providing a combination of safe spaces within each home and/or constructing community hurricane shelter spaces or duel use of a facility constructed or retrofitted to State of Florida hurricane code within the development. The hurricane shelter mitigation techniques provided shall be approved by the City of Port St. Lucie and St. Lucie County Division of Emergency Management and be consistent with Chapter 9J-2.0256(5) (a), Florida Administrative Code. If the Development Order is changed to allow an alternate number of residential units, then the numbers in this condition would change proportionately.

71. The developer shall provide 2,940 square feet of special needs public hurricane evacuation shelter space for the residents of the Western Grove Development of Regional Impact. In order to ensure that shelter space is available at all times to meet demand, a minimum of 600 square feet of special needs public hurricane evacuation shelter space shall be provided within one year of commencing Phase 1; a minimum of 1,140 square feet of special needs public hurricane evacuation shelter space shall be provided within one year of commencing Phase 2; and a minimum of 1,200 square feet of special needs public hurricane evacuation shelter space shall be provided within one year of commencing Phase 3. The amount of special needs public hurricane evacuation shelter space shall be recalculated to the satisfaction of the City of Port St. Lucie and St. Lucie County Division of Emergency Management if age restrictions are established in any part of the Western Grove Development of

Regional Impact. Special needs shelter space requirements may be accomplished through the developer paying a proportionate share payment to mitigate its projected demand on special needs shelters. The special needs hurricane shelter mitigation techniques provided shall be approved by the City of Port St. Lucie and St. Lucie County Division of Emergency Management and be consistent with Chapter 9J-2.0256(5) (a), Florida Administrative Code. If the Development Order is changed to allow an alternate number of residential units, then the numbers in this condition would change proportionately.

Parks and Recreation

72. In order to mitigate the regional impacts of the Western Grove Development of Regional Impact on public beach access and boat ramps facilities, an assessment shall be paid to the City of Port St. Lucie for the purpose of funding additional public beach access and boat ramp facilities designed to increase their capacity for use. The assessment shall be calculated according to the formula in the table below. Final site plan approval shall not be issued until the required assessment has been paid.

Type of Facility	Facility Cost Per Unit[1] Adjusted for Proximity Factor (in 2005 dollars[2])		No. of Residential Units Proposed for Site Plan Approval	Total $
Beach Access:	$165.31	x	(X)	= (Y)
Boat Ramp:	$369.53	x	(X)	= (Y)

[1] The facility cost per unit is the capital cost per capita for facilities times the 2.5 persons per residential unit projected in the Western Grove Development of Regional Impact application. The weighted relative proximity factor is the percentage that results when the average distance to public facilities in St. Lucie County, weighted by the number of beach parking spaces/boat ramp lanes in Martin County for every 1 parking space/boat ramp lane in St. Lucie County, is divided by the sum of the weighted average distance to public facilities in St. Lucie County plus the average distance to public facilities in Martin County.

[2] The facility cost per unit shall be adjusted each year by the change in the Consumer Price Index (U.S. Department of Labor, Bureau of Labor Statistics, U.S. city average, 1982-84 = 100, 9/15/2005).

73. Prior to execution of the assessment program, the City of Port St. Lucie should enter into an interlocal agreement that, at a minimum, will stipulate the following:

    a. the assessment funds shall be used solely for the purpose of expanding existing or constructing new public beach access and boat ramp facilities designed to increase their capacity for use;

    b. the first priority for construction of facilities shall be in the City of Port St. Lucie; the second priority shall be in St. Lucie County; and the third priority shall be in Martin County.

c. the City of Port St. Lucie, Martin County, and St. Lucie County agree to a long-range construction plan that specifies the location and timing of expanding existing or establishing new public beach access and boat ramp facilities;

d. a provision that limits the expenditure of assessment funds solely for carrying out the jointly approved long-range construction plans;

e. an annual monitoring program that verifies actual construction and/or expansion of public beach access and boat ramp facilities; and

f. for Phase 1 of the Western Grove Development of Regional Impact, at least one beach access site parking space shall be provided for each $16,494 of beach access assessment funds received, and at least one new boat ramp lane shall be provided for each $1,773,845 of boat ramp assessment funds received. In subsequent phases, the $16,494 per parking space and $1,773,845 per boat ramp shall be adjusted each year by the change in the Consumer Price Index.

The Western Grove Development of Regional Impact shall receive credit for assessment fees paid to the City of Port St. Lucie in any calculation of impact fees for beach access or boat ramp facilities imposed in the future by St. Lucie County.

74. The following should be considered as an alternative to mitigating regional impacts as described in the previous two Development Order Conditions (72 and 73): 1) the implementation of user fees by Martin County; 2) an interlocal agreement between the City of Port St. Lucie, Martin County, and St. Lucie County setting forth the necessary and agreed upon actions to increase capacity at City and County beach access and boat ramp facilities to meet the demand expected to be generated by the Western Grove Development of Regional Impact; or 3) some combination of the above.

75. No residential subdivision plat shall be recorded nor final site plan approved for any development parcel until the developer has provided a plan approved by the City of Port St. Lucie for the provision of neighborhood and community recreational sites and facilities to meet the demand created by residential development in the project. At a minimum, the plan shall 1) provide for a minimum of 50 acres of net usable area of active recreation; 2) show the locations of proposed parks and recreational facilities; 3) provide a schedule for construction of the parks and recreational facilities, and 4) comply with the level of service required for parks and recreational facilities in the City of Port St. Lucie Comprehensive Plan. Neighborhood and community recreational facilities shall be constructed and available to serve projected demand in accordance with the plan approved by the City of Port St. Lucie Parks and Recreation Department.

Historic and Archaeological Sites

76. In the event of discovery of any archaeological artifacts during construction of the project, construction shall stop in the area of discovery and immediate notification shall be provided to the City of Port St. Lucie and the Division of Historical Resources, Florida Department of State. Proper protection shall be provided to the satisfaction of the City of Port St. Lucie and the Division of Historical Resources.

Energy

77. The final site and building designs shall comply with Florida Thermal Efficiency Code Part VII, Chapter 553, Florida Statutes. To the maximum extent feasible the project shall also incorporate measures identified in Council's energy plan guide entitled, Energy Planning in the Twenty-First Century: A Guide for Florida Communities, updated January 2003; and the Strategic Regional Policy Plan.

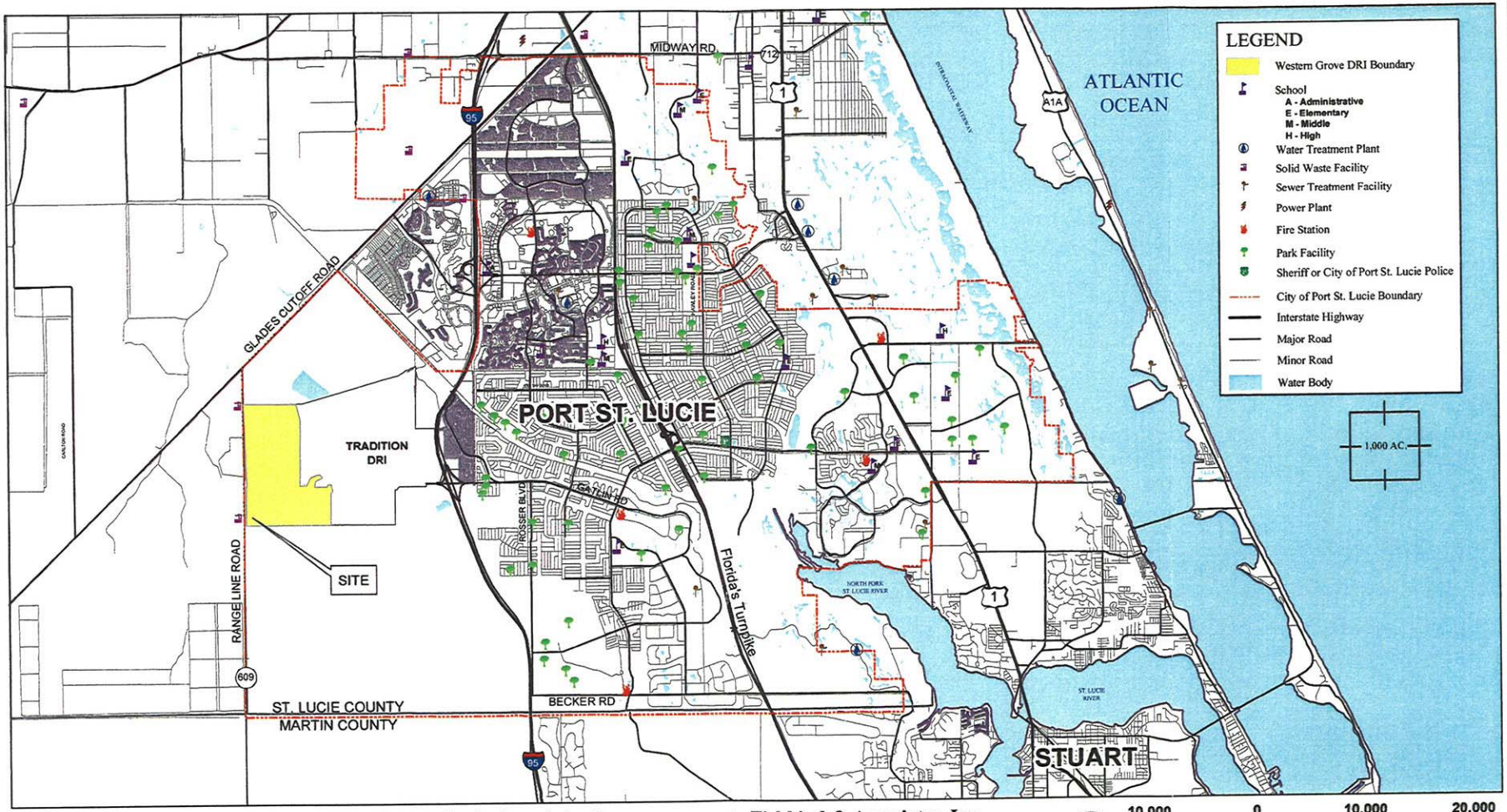
APPENDIX A

Maps

This appendix contains the following maps related to the Western Grove DRI:

Public Facilities A-2
Vegetation & Land Use A-3
Wetland Locations A-4
Wetland Removal A-5
Listed Wildlife Observation Locations A-6
Sandhill Crane Nests A-7
Pre-Development Drainage Plan A-8
Post Development Master Drainage Plan A-9

WESTERN GROVE

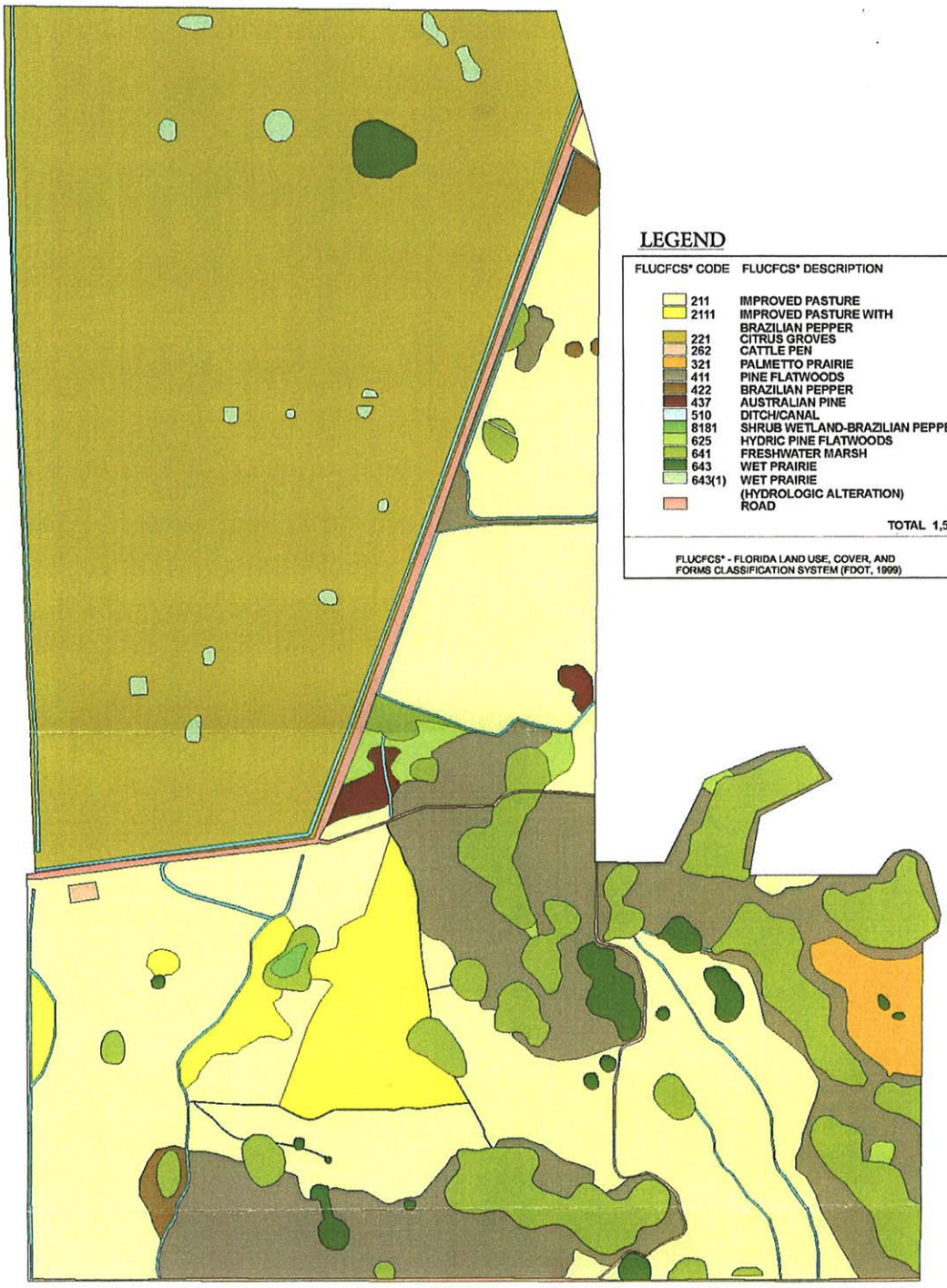


- **Tradition Development Company, L.L.C.** Owner
- **Canin Associates, Inc.** Plannning & Landscape Architecture
- **Fishkind & Associates, Inc.** Economics
- **EDC** Civil Engineers
- **Pinder Troutman Consulting, Inc.** Traffic
- **Ruden McClosky** Legal
- **Vanasse Hangen Brustlin, Inc.** Environmental

Map K
Public Facilities

I:\GIS\2004\01\WESTERN GROVE EXHIBIT K.MOX REVISED: September 1, 2004

WESTERN GROVE



LEGEND

FLUCFCS* CODE	FLUCFCS* DESCRIPTION	ACRES
211	IMPROVED PASTURE	427.63
2111	IMPROVED PASTURE WITH BRAZILIAN PEPPER	61.57
221	CITRUS GROVES	664.84
262	CATTLE PEN	1.53
321	PALMETTO PRAIRIE	16.74
411	PINE FLATWOODS	192.90
422	BRAZILIAN PEPPER	7.65
437	AUSTRALIAN PINE	6.57
510	DITCH/CANAL	23.02
8181	SHRUB WETLAND-BRAZILIAN PEPPER	1.25
625	HYDRIC PINE FLATWOODS	8.85
641	FRESHWATER MARSH	127.38
643	WET PRAIRIE	19.38
643(1)	WET PRAIRIE (HYDROLOGIC ALTERATION)	12.44
	ROAD	
	TOTAL	1,593.30

FLUCFCS* - FLORIDA LAND USE, COVER, AND FORMS CLASSIFICATION SYSTEM (FDOT, 1999)

- Tradition Development Company, LLC — Owner
- Canin Associates, Inc. — Planning & Landscape Architecture
- Fishkind & Associates, Inc. — Economics
- EDC — Civil Engineers
- Pinder Troutman Consulting, Inc. — Traffic
- Ruden McClosky — Legal
- Vanasse Hangen Brustlin, Inc. — Environmental

500' 0' 500' 1000'

Map F-1

Vegetation & Land Use Map

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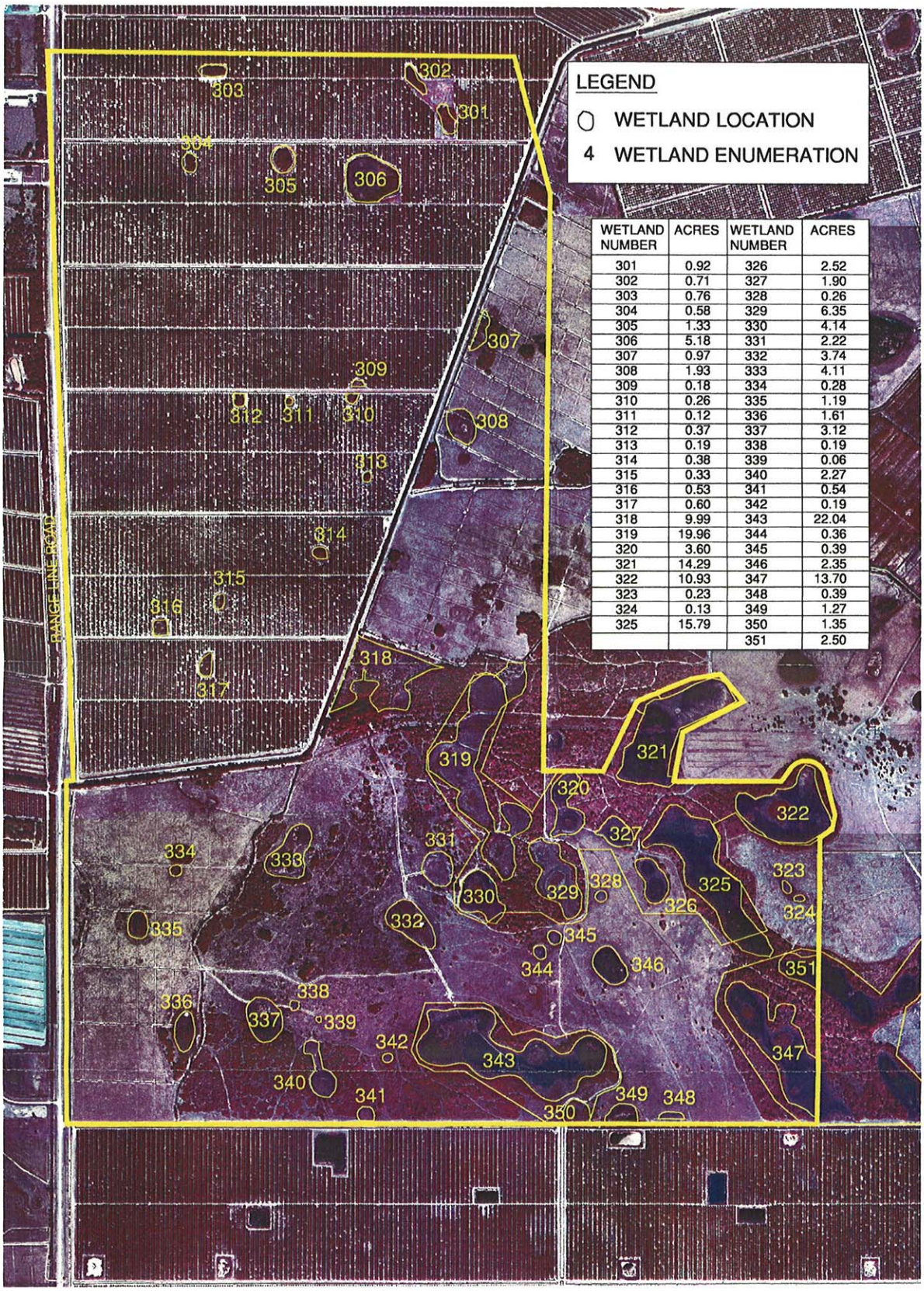
WESTERN GROVE



WETLAND NUMBER	ACRES	WETLAND NUMBER	ACRES
301	0.92	326	2.52
302	0.71	327	1.90
303	0.76	328	0.26
304	0.58	329	6.35
305	1.33	330	4.14
306	5.18	331	2.22
307	0.97	332	3.74
308	1.93	333	4.11
309	0.18	334	0.28
310	0.26	335	1.19
311	0.12	336	1.61
312	0.37	337	3.12
313	0.19	338	0.19
314	0.38	339	0.06
315	0.33	340	2.27
316	0.53	341	0.54
317	0.60	342	0.19
318	9.99	343	22.04
319	19.96	344	0.36
320	3.60	345	0.39
321	14.29	346	2.35
322	10.93	347	13.70
323	0.23	348	0.39
324	0.13	349	1.27
325	15.79	350	1.35
		351	2.50

• Tradition Development Company, LLC — Owner
• Canin Associates, Inc. — Planning & Landscape Architecture
• Fishkind & Associates, Inc. — Economics
• EDC — Civil Engineers
• Pinder Troutman Consulting, Inc. — Traffic
• Ruden McClosky — Legal
• Vanasse Hangen Brustlin, Inc. — Environmental

500' 0' 500' 1000'

Map F-2

Wetland Locations & Enumeration

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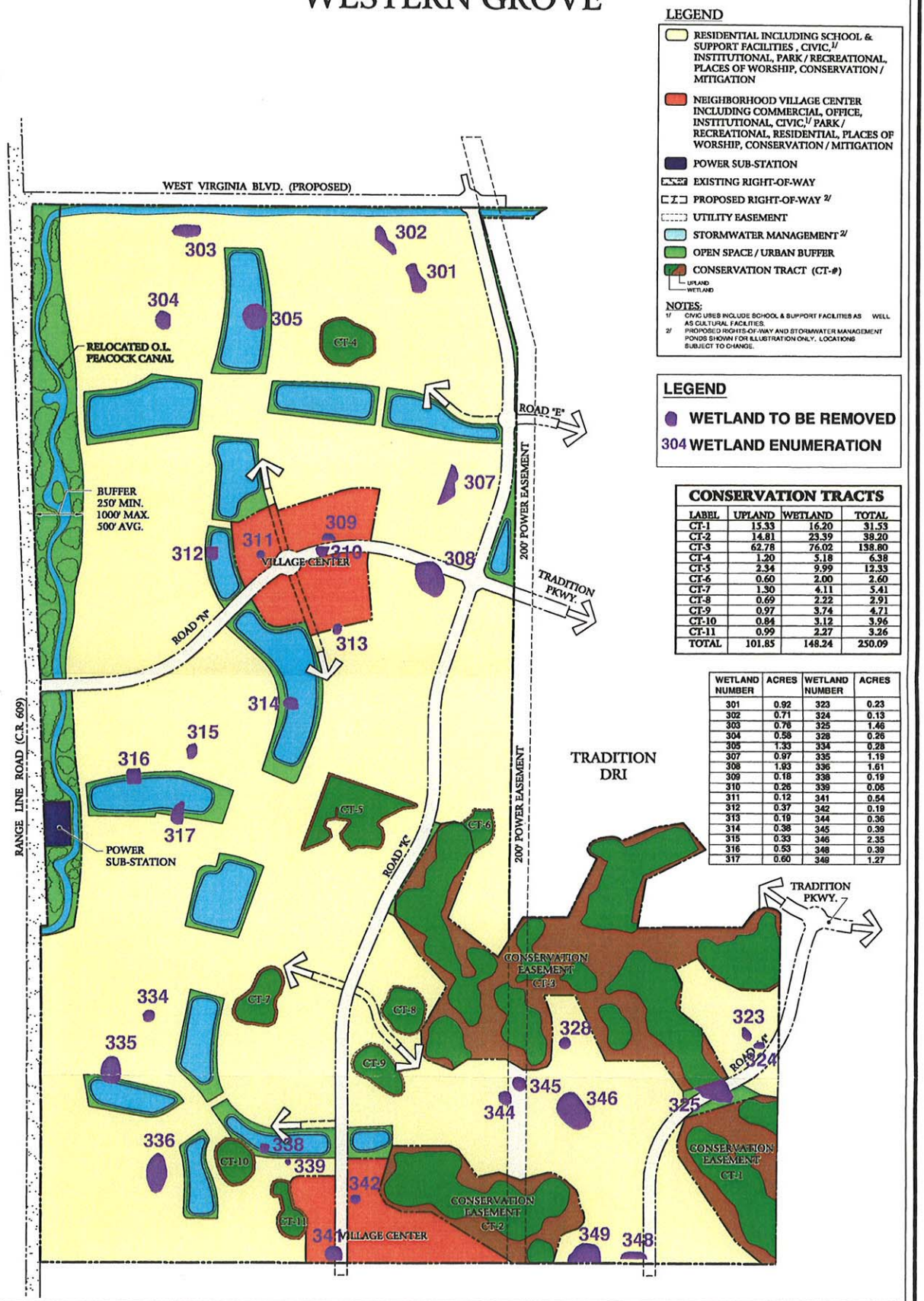
WESTERN GROVE



CONSERVATION TRACTS

LABEL	UPLAND	WETLAND	TOTAL
CT-1	15.33	16.20	31.53
CT-2	14.81	23.39	38.20
CT-3	62.78	76.02	138.80
CT-4	1.20	5.18	6.38
CT-5	2.34	9.99	12.33
CT-6	0.60	2.00	2.60
CT-7	1.30	4.11	5.41
CT-8	0.69	2.22	2.91
CT-9	0.97	3.74	4.71
CT-10	0.84	3.12	3.96
CT-11	0.99	2.27	3.26
TOTAL	101.85	148.24	250.09

WETLAND NUMBER	ACRES	WETLAND NUMBER	ACRES
301	0.92	323	0.23
302	0.71	324	0.13
303	0.76	325	1.46
304	0.58	328	0.26
305	1.33	334	0.28
307	0.97	335	1.19
308	1.93	336	1.61
309	0.18	338	0.19
310	0.26	339	0.06
311	0.12	341	0.54
312	0.37	342	0.19
313	0.19	344	0.36
314	0.38	345	0.39
315	0.33	346	2.35
316	0.53	348	0.39
317	0.60	349	1.27

- Tradition Development Company, LLC — Owner
- Canin Associates, Inc. — Planning & Landscape Architecture
- Fishkind & Associates, Inc. — Economics
- EDC — Civil Engineers
- Pinder Troutman Consulting, Inc. — Traffic
- Ruden McClosky — Legal
- Vanasse Hangen Brustlin, Inc. — Environmental

500' 0' 500' 1000'

Figure 13-1
Wetland Removal

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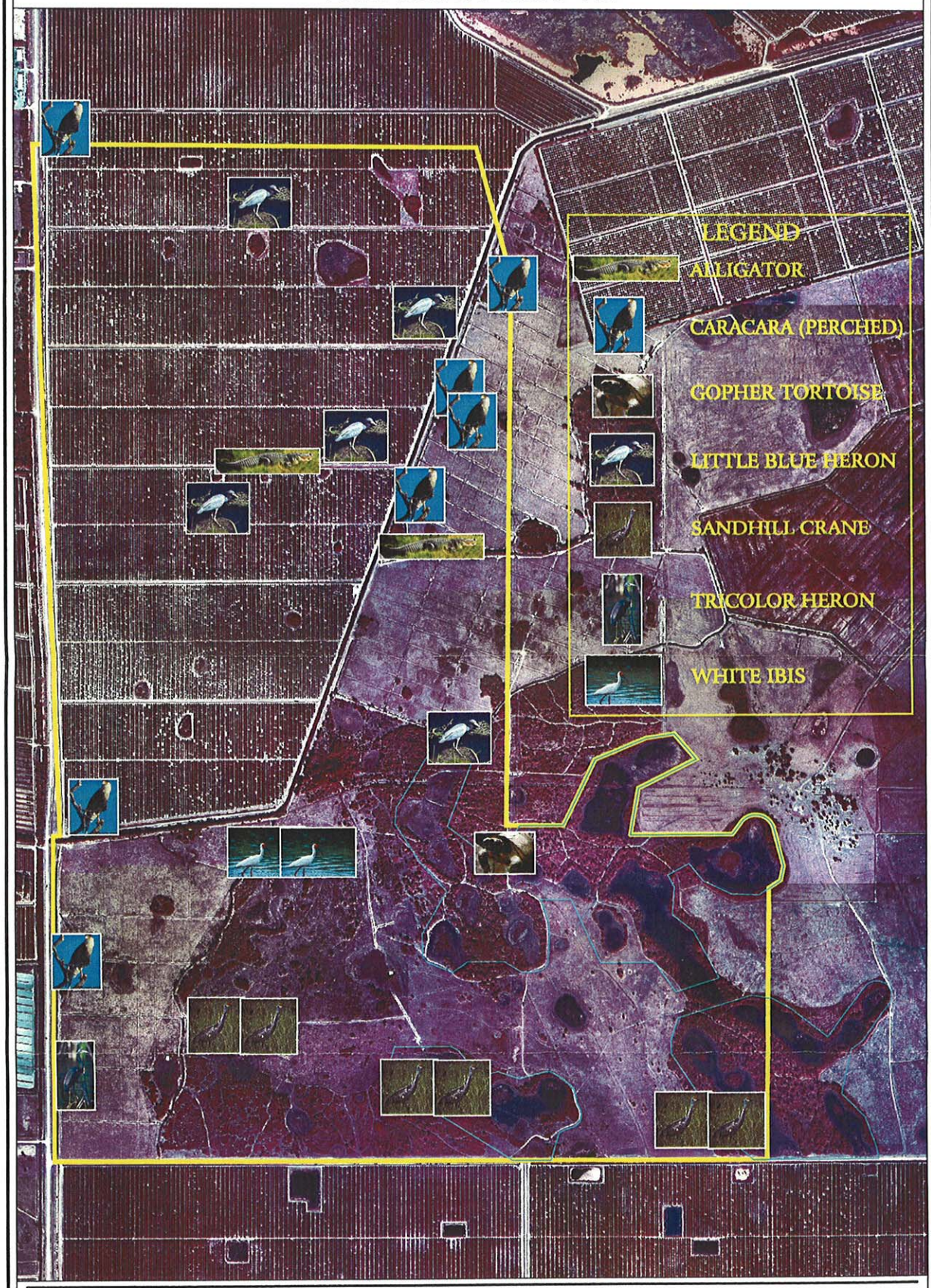
WESTERN GROVE



- Tradition Development Company, LLC — Owner
- Canin Associates, Inc. — Planning & Landscape Architecture
- Fishkind & Associates, Inc. — Economics
- EDC — Civil Engineers
- Pinder Troutman Consulting, Inc. — Traffic
- Ruden McClosky — Legal
- Vanasse Hangen Brustlin, Inc. — Environmental

500' 0' 500' 1000'

Map G-5
Listed Wildlife Observation Locations

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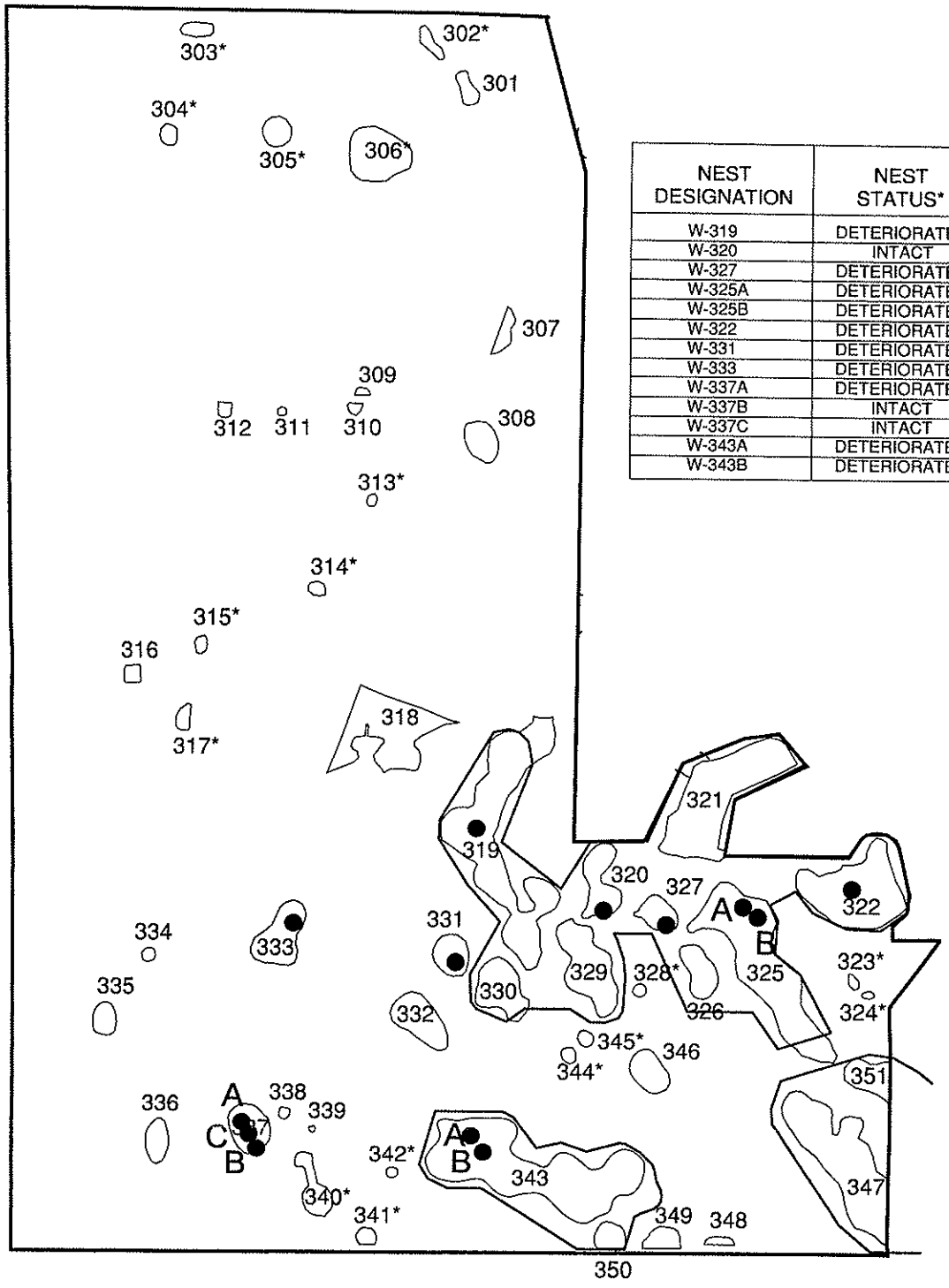
WESTERN GROVE



NEST DESIGNATION	NEST STATUS*
W-319	DETERIORATED
W-320	INTACT
W-327	DETERIORATED
W-325A	DETERIORATED
W-325B	DETERIORATED
W-322	DETERIORATED
W-331	DETERIORATED
W-333	DETERIORATED
W-337A	DETERIORATED
W-337B	INTACT
W-337C	INTACT
W-343A	DETERIORATED
W-343B	DETERIORATED

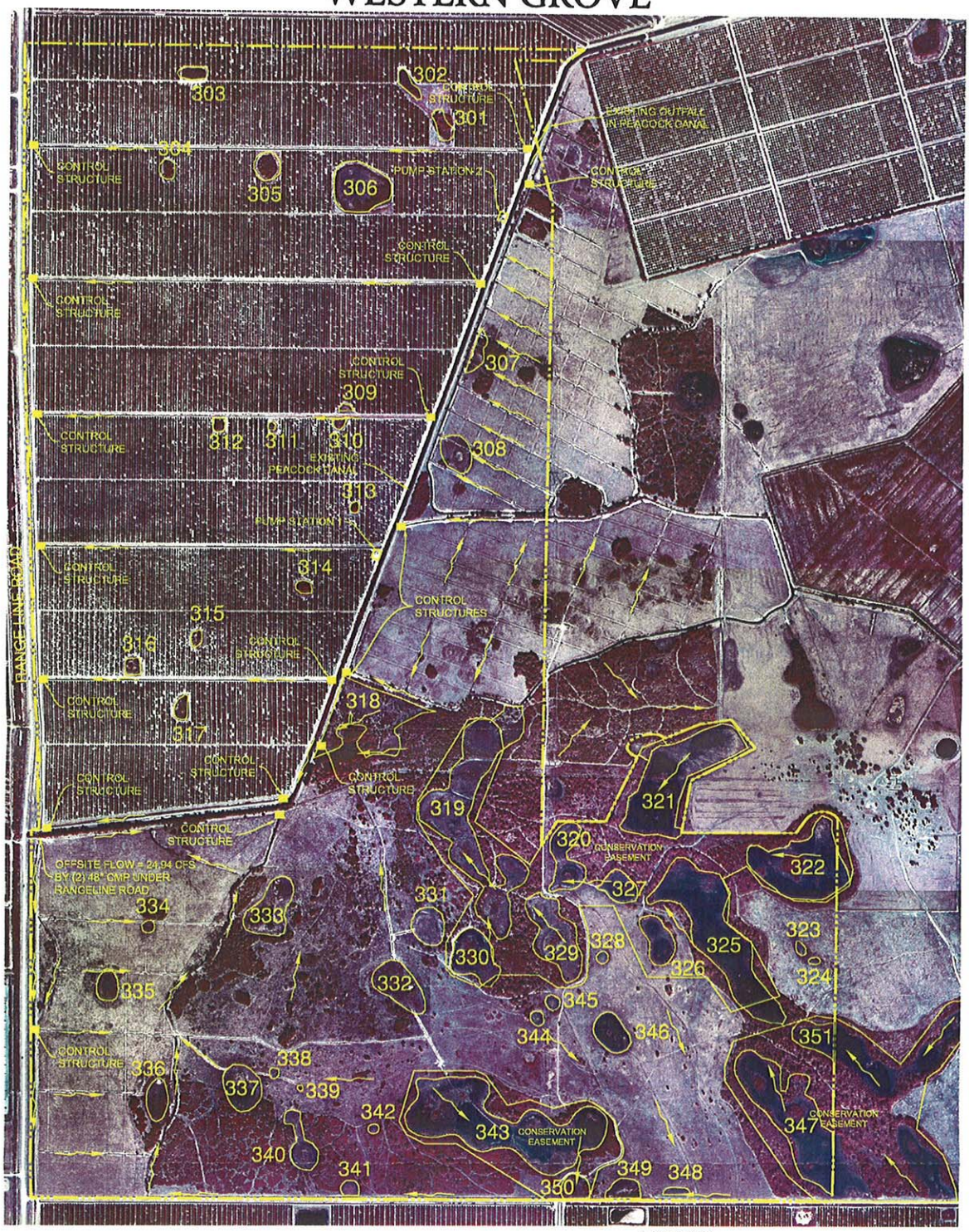
- Tradition Development Company, LLC — Owner
- Canin Associates, Inc. — Planning & Landscape Architecture
- Fishkind & Associates, Inc. — Economics
- EDC — Civil Engineers
- Pinder Troutman Consulting, Inc. — Traffic
- Ruden McClosky — Legal
- Vanasse Hangen Brustlin, Inc. — Environmental

500' 0' 500' 1000'

Map G5A
Sandhill Crane Nests

G:\204061\pAsheets\DRI\mapG5a.dwg REV: 08 Feb 05

WESTERN GROVE



LEGEND:

- DIRECTION OF FLOW
- EXISTING CONTROL STRUCTURE
- EXISTING PUMP STATION
- 344 EXISTING WETLAND

- Tradition Development Company, LLC — Owner
- Canin Associates, Inc. — Planning & Landscape Architecture
- Fishkind & Associates, Inc. — Economics
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- Pinder Troutman Consulting, Inc. — Traffic
- Ruden McClosky — Legal
- Vanasse Hangen Brustlin, Inc. — Environmental

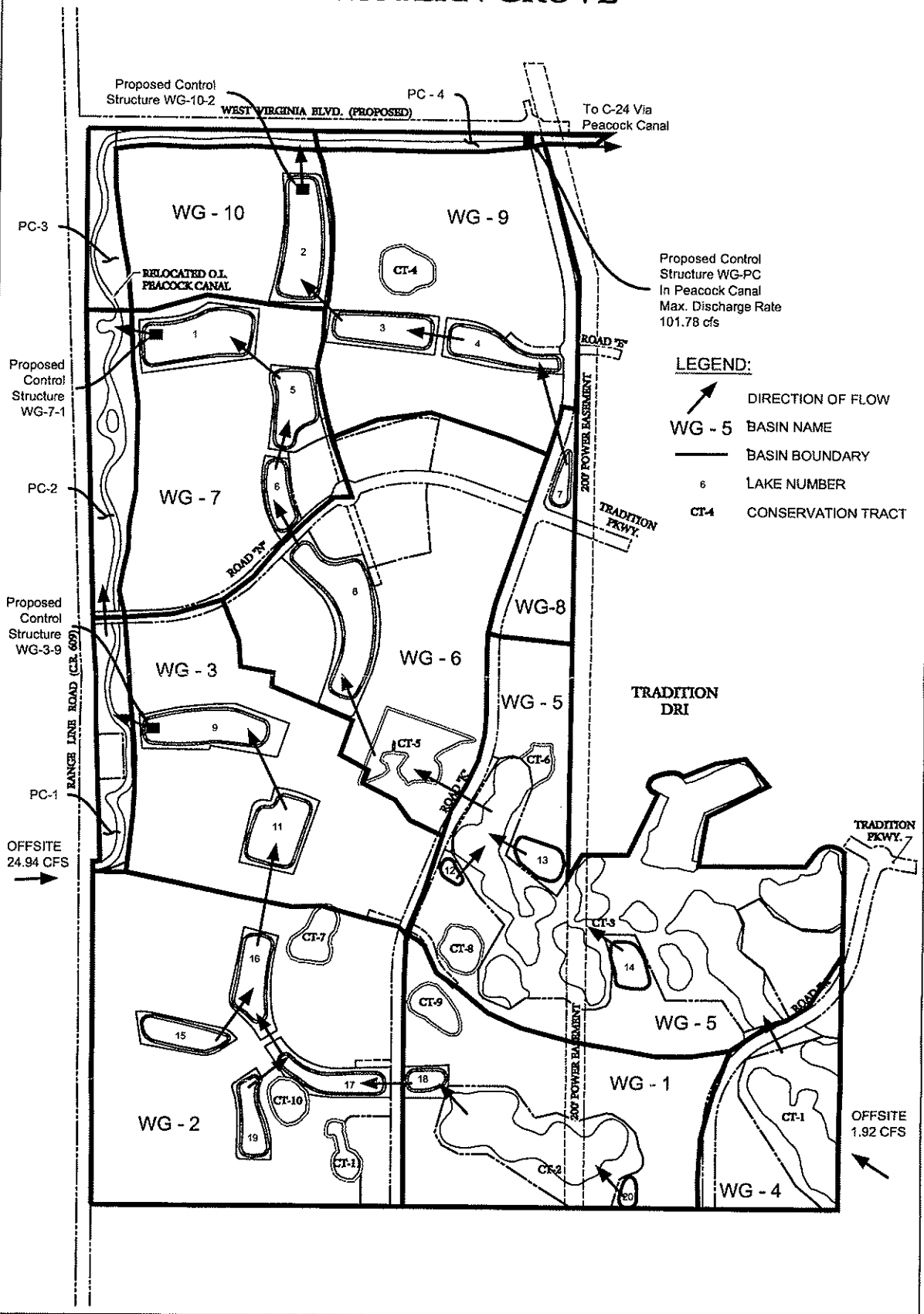
500' 0' 500' 1000'

Map I-1

Pre-Development Drainage Plan

G:\204061\cad\pl\sheets\dri\mapI1-predev-drainage.dwg REV: 23 Sep 04

WESTERN GROVE



- Tradition Development Company, LLC — Owner
- Canin Associates, Inc. — Planning & Landscape Architecture
- Fishkind & Associates, Inc. — Economics
- EDC — Civil Engineers
- Pinder Troutman Consulting, Inc. — Traffic
- Ruden McClosky — Legal
- Vanasse Hangen Brustlin, Inc. — Environmental

500' 0' 500' 1000'

Map I-2

Post Development Master Drainage Plan

G:\204061\cadd\sheets\dri\map1-2-04-229 WG Exhibits.dwg REV: 17 Sep 04

APPENDIX B

Correspondence

This appendix contains correspondence related to the Western Grove DRI:

South Florida Water Management District B-2
Martin County B-15
School Board of St. Lucie County B-53
Florida Department of Transportation B-55

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
3301 Gun Club Road, West Palm Beach, Florida 33406 • (561) 686-8800 • FL WATS 1-800-432-2045 • TDD (561) 697-2574
Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680 • www.sfwmd.gov

RECEIVED
APR 1 7 2005
REGIONAL PLANNING COUNCIL

LAN 01

April 8, 2005

Mr. Michael Busha, Executive Director
Treasure Coast Regional Planning Council
301 East Ocean Boulevard, Suite 300
Stuart, FL 34994

Dear ~~Mr. Busha~~ Michael:

Subject: Western Grove, DRI No. 04-470

Enclosed is a copy of the District's Impact Assessment Report for the above subject project. The report is a general technical assessment of the project based on information provided by the applicant and does not constitute final finding agency action.

We appreciate this opportunity to participate in the review process. If you have any questions concerning our review of this project, please give me a call at (561) 682-6862.

Sincerely,

James J. Golden, AICP
Senior Planner
Environmental Resource Regulation

/jjg

Enclosure

c: Ron Manley, Canin Associates, Inc.

GOVERNING BOARD
Nicolás J. Gutiérrez, Jr., Esq., *Chair*
Pamela Brooks-Thomas, *Vice-Chair*
Irela M. Bagué
Michael Collins
Hugh M. English
Lennart E. Lindahl, P.E.
Kevin McCarty
Harkley R. Thornton
Trudi K. Williams, P.E.

EXECUTIVE OFFICE
Henry Dean, *Executive Director*

IMPACT ASSESSMENT REPORT

Prepared by

South Florida Water Management District

Issued April 8, 2005

I PROJECT SUMMARY

Project:	Western Grove
Developer:	Olson & Associates of NW Florida, Inc.
SFWMD ID No:	04-470
Location:	Sections 5,6,7,8,17&18//Township 37 South/Range 39 East, St. Lucie County
Size:	±1,593.3 acres
Existing Land Use:	Agricultural/Undeveloped
Proposed Land Use:	Mixed-use, including Residential (4,061 dwelling units), Retail (365,904 square feet), Office (250,906 square feet)
DRI Threshold:	Exceeds mixed-use threshold, pursuant to Chapter 380.0651(3)(i), F.S.

II GENERAL PROJECT-RELATED INFORMATION

The Western Grove DRI is a proposed ±1,593.3 acre mixed-use development located in southeastern St. Lucie County at the southeast corner of Range Line Road (C.R. 609) and the proposed extension of West Virginia Boulevard. The Tradition DRI lies east of and adjacent to the project site (see Exhibit 1).

The Master Development Plan (see Exhibit 2) proposes the following land uses: Residential (4,061 dwelling units), Retail (365,904 square feet), Office (250,906 square feet). Development is scheduled to occur in three phases with build-out in 2020.

III POTENTIAL FOR ADVERSE REGIONAL IMPACTS SUMMARY

Category	Minimal	Significant	Major
Surface Water Management – Quantity		X	
Surface Water Management – Quality		X	
Wetlands/Other Surface Waters – Functions	X		
Water Use	X		

IV CONCLUSIONS AND RECOMMENDATIONS

The available DRI information is not detailed enough for District staff to finalize its evaluation of the proposed project. On March 15, 2005, the applicant submitted an Environmental Resource Permit (ERP) application (Application No. 050315-6) that is currently under technical review. Unresolved issues that will need to be addressed during the permit application review process include the project's proposed non-potable (landscape irrigation) demands/sources, submittal of detailed design plans and calculations for the proposed surface water management system, verification of the quality and function of the wetlands on the project site, potential impacts to listed species, verification of the seasonal high water elevations within the on-site wetlands, establishment of an appropriate control elevation, and conformance with the District's lake/wetland separation criteria (see the summaries below and the checklists and footnotes on pages 5 through 10 for additional details).

Water Use

Potable water supply will be provided by City of Port St. Lucie Utility Systems Department. The utility currently has an adequate permitted allocation to meet the demands of this project. The applicant is proposing to meet the project's landscape irrigation demands by withdrawals from surface water sources.

For additional details concerning the above as well as permitting requirements, see "Permits" on page 3 and the Water Supply and Development Checklist and Footnotes on pages 5 and 6.

The District is recommending a Development Order Condition (see page 3) requiring that specific conservation measures be incorporated into the project design.

Surface Water Management

Existing surface water features on the project site include a series of isolated wetlands, a network of agricultural drainage/irrigation ditches, and the Peacock Canal.

The proposed surface water management system consists of a network of inlets, culverts, wet detention ponds, and control structures. Water quality treatment will be provided within the on-site wet detention ponds prior to discharging into the Peacock Canal and ultimately the C-24 Canal.

An Environmental Resource Permit (ERP) application was filed on March 15, 2005 and is currently under technical review (Application No. 050315-6). Issues to be resolved prior to issuance of an ERP include establishment of an appropriate control elevation and submittal of detailed design plans and calculations.

For additional details concerning the proposed surface water management system design as well as permitting requirements, see "Permits" below and the Surface Water Management Checklist and Footnotes on pages 7 and 8.

Wetlands/Other Surface Waters-Functions

The project site contains approximately 169.3 acres of wetlands, the majority of which are freshwater marsh wetlands. A lesser acreage of wet prairie, hydric pine flatwood, and shrub wetland-Brazilian pepper wetlands also occur on-site. The applicant is proposing to preserve approximately 117.61 acres (69%) of the total wetland acreage existing on-site. An additional 30.63 acres of wetlands are proposed to be enhanced.

An Environmental Resource Permit (ERP) application was filed on March 15, 2005 and is currently under technical review (Application No. 050315-6). Issues to be resolved prior to issuance of an ERP include verification of the quality and function of the wetlands on the project site, potential impacts to listed species, verification of the seasonal high water elevations, establishment of an appropriate control elevation, and conformance with the District's lake/wetland separation criteria.

For additional details concerning the above as well as permitting requirements, see "Permits" below and the Environment Checklist and Footnotes on pages 9 and 10.

Permits

This project will require the following District permits prior to commencement of construction:

1. Environmental Resource Permit – for conceptual approval and for construction and operation of the surface water management system for the proposed development and for the proposed impacts to wetlands and other surface waters (Application No. 050315-6 was filed on March 15, 2005 and is currently under technical review).

2. Water Use Permit – for the proposed surface water withdrawals for landscape irrigation.

This project may require the following District permit prior to commencement of construction:

3. Water Use Permit - for certain dewatering activities proposed for the construction of project lakes, utilities and/or road or building foundations.

The applicant must meet District criteria in effect at the time of permit application.

Recommended Development Order Condition

1. The project shall utilize ultra-low volume water use plumbing fixtures, self-closing and/or metered water faucets, xeriscape landscape techniques, and other water conserving devices and/or methods. These devices and methods shall meet the criteria outlined in the water conservation plan of the public water supply permit issued to the City of Port St. Lucie by the South Florida Water Management District.

V DISCLAIMER

This review has been performed by the South Florida Water Management District to provide the Treasure Coast Regional Planning Council with a general technical assessment of the water-related impacts of this project from the District's perspective. It is a technical review of the project based on the information provided by the DRI applicant. It is not a permit under Chapter 373, F.S., nor is it a commitment for said permits. This review does not constitute final agency action and it is not binding on this agency. Permit evaluation, pursuant to Chapter 373, F.S., will be based upon the criteria in effect and the information available at the time of permit application. Consequently, the applicant is advised that this could result in a change in the District's technical assessment from that which is contained in this review.

SUBJECT: **WATER SUPPLY AND DEVELOPMENT** - Western Grove, DRI No. 04-470

Proposed Potable Water Source: City of Port St. Lucie Utility Systems Dept.
Permit No.: 56-11142-W
Expiration Date: January, 2025
Permitted Allocation: 12,757 MGY
Current Usage: 4,150 MGY (2004 data)
Projected Demand of DRI: 411 MGY

Proposed Non-Potable Water Sources: On-site lakes/C-24 Canal
Projected Demand of DRI: 440 MGY (based on 518 acres of irrigated area)

	ACCEPTABLE RESPONSE IN APPLICATION	RESOLVABLE AT PERMIT TIME		MAJOR REGIONAL ISSUES
		MINOR	MAJOR	
I. PROJECTED DEMANDS OF PROJECT				
A. POTABLE WATER				
1. Use Generation Rates	X			
2. Conservation Practices	X			
B. NON-POTABLE WATER				
1. Use Generation Rates		X(1)		
2. Conservation Practices	X			
3. Wastewater Reuse	X			
II. WATER USE IMPACTS				
A. ON-SITE				
1. Proposed Sources				
a. Groundwater	N/A			
b. Surface Water		X(2)		
c. Wastewater Reuse	X			
d. Reverse Osmosis	N/A			
2. Resource Capability		X(2)		
3. Impacts				
a. Salt Water Intrusion		X(3)		
b. Pollution/Contamination		X(3)		
c. Environmental		X(4)		
B. OFF-SITE				
1. Verification of Availability from Utility	X			
2. Resource Capability	X			
3. Impacts				
a. Salt Water Intrusion	X			
b. Pollution/Contamination	X			
c. Environmental	X			
d. Other Legal Users	X			

FOOTNOTES: See following page.

WATER SUPPLY AND DEVELOPMENT FOOTNOTES:

(1) The Blaney-Criddle method of determining non-potable water use indicates that 674 MGY (1.85 MGD) would be required, on average, to irrigate 518 acres of landscaping. This is more than the 1.205 MGD calculated by the applicant. This issue will need to be addressed at the time of permit application.

(2) The existence of an agricultural water use permit for the project site does not imply that a water use permit for any other land use type will be issued by the District. In addition, when the existing agricultural water use permit is cancelled, the C-24 Canal allocation for the agricultural permit will also be cancelled. It will not be automatically transferred to the new permit for the project's proposed landscape irrigation demands. Consequently, an analysis of impacts from on-site lake withdrawals, assuming no augmentation from the C-24 Canal, may be required at the time of permit application.

(3) Ground water quality, to the depth that the lakes will be constructed, was not specified in the ADA.

(4) Under the District's water use permitting criteria, the proposed withdrawals from the on-site lakes cannot impact on-site or off-site wetlands. A detailed review of this issue will occur at the time of permit application.

(5) Due to the potential for adverse impacts from water use withdrawals associated with this project, any application for a water use permit will be reviewed concurrently with the Environmental Resource Permit (ERP)application.

SUBJECT: **SURFACE WATER MANAGEMENT** - Western Grove, DRI No. 04-470

Drainage Basin: C-24
Receiving Body: Peacock Canal

	ACCEPTABLE RESPONSE IN APPLICATION	RESOLVABLE AT PERMIT TIME		MAJOR REGIONAL ISSUES
		MINOR	MAJOR	
I. SYSTEM DESIGN				
A. QUANTITY CONSIDERATIONS				
1. Discharge method, location and route to receiving water	X			
2. Floodplain encroachment	N/A			
3. Net basin storage	N/A			
4. Stage/storage		X(1)		
5. Control elevations			X(1)	
6. Water management areas		X(1,3)		
7. Minimum drainage		X(3)		
8. Overdrainage			X(1)	
9. Outparcels	N/A			
10. Exfiltration		X(2)		
11. Floor and road protection	X			
12. Passage of upstream flows	X			
13. Capacity of receiving water (pre vs. post)	X			
B. QUALITY CONSIDERATIONS				
1. Standard BMP's	X			
2. Special BMP's				
a. Sensitive receiving waters	N/A			
b. On-site use of wastewater	N/A			
c. Location of on-site percolation ponds	N/A			
d. Proximity of on-site percolation ponds to SWM system	N/A			
3. Use of natural system			X(1)	
4. Hazardous materials				
a. Use/generation	X			
b. Management/disposal	X			
5. Exfiltration systems		X(2)		

FOOTNOTES: See following page

SURFACE WATER MANAGEMENT FOOTNOTES:

(1) The applicant has indicated that a process to determine the appropriate control elevation has been initiated. During the ERP application review process, the results will need to be evaluated to determine if the proposed control elevation is appropriate for the project site.

(2) If exfiltration is proposed for any commercial development, exfiltration calculations will need to the submitted at the time of permit application.

(3) Minimum drainage and recovery calculations will need to be included in the permit application calculations.

SUBJECT: **ENVIRONMENT** - Western Grove, DRI No. 04-470

WETLANDS ACREAGE SUMMARY*

Total Existing	Presently Impacted	Proposed To Be Preserved	Proposed To Be Altered/Destroyed	Proposed To Be Mitigated	Resulting Net Gain/Loss
169.3	0	148.24(1)	21.06	[see footnote #2]	

* Applicant estimates (subject to verification during permit review)

	ACCEPTABLE RESPONSE IN APPLICATION	RESOLVABLE AT PERMIT TIME MINOR	RESOLVABLE AT PERMIT TIME MAJOR	MAJOR REGIONAL ISSUES
I. **EXISTING SENSITIVE LANDS**				
A. WETLANDS				
1. Quantity	X			
2. Quality		X(3)		
B. UNIQUE HABITAT	X			
C. ENDANGERED SPECIES		X(4)		
D. OTHER (Save Our Rivers; OFWs; aquifer recharge areas; etc.)	X			
II. **IMPACTS OF PRESERVATION/MITIGATION**				
A. QUANTITY	X(2)			
B. QUALITY	X(2)			
C. MANAGEMENT SCHEME (managed elevations, buffers, littoral zones; etc.)		X(5)		
D. ENDANGERED SPECIES/HABITAT		X(6)		
III. **COMPATIBILITY OF PROPOSED LAND USE AND NATURAL CHARACTERISTICS**		X(4,5)		

FOOTNOTES: See following page.

ENVIRONMENT FOOTNOTES:

(1) This figure includes 117.61 of preservation and 30.63 acres of enhancement.

(2) All wetland impacts in a 14,640 acre area that includes the Western Grove DRI have been previously approved and mitigated for in Environmental Resource Permit (ERP) No. 56-01544-P.

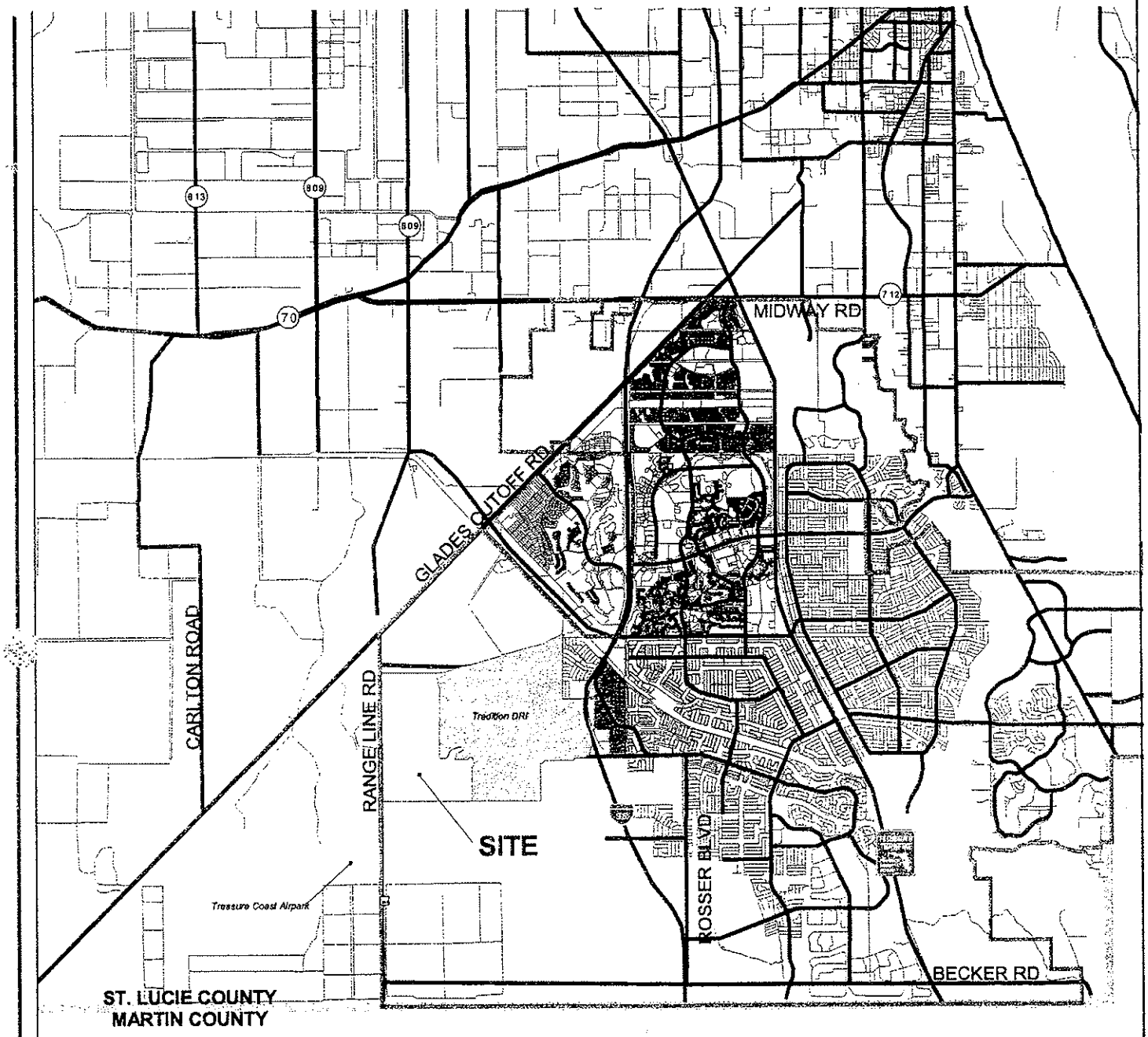
(3) District staff has not performed a qualitative assessment of the existing on-site wetlands. During the ERP application review process, District staff may require additional information and field verifications concerning the characteristics and functional values of the on-site wetlands.

(4) A detailed wildlife survey was included in the ADA. Several Sandhill Crane nests were observed in the on-site wetlands. A Sandhill Crane Management Plan will need to be developed for the project site as part of the ERP application review process. Any additional listed species issues that may arise will need to be evaluated and addressed during the ERP application review process.

(5) The applicant has not sufficiently demonstrated that the hydrologic condition of many of the preserved wetland areas will be maintained in the post-development condition. District staff has not verified the seasonal high water elevations submitted. The elevations will need to be field verified during the ERP application review process. The control elevations of the wetlands and the basins they are located in must be based on the seasonal high water elevations within the on-site wetlands. In addition, all proposed lakes must meet the District's lake/wetland separation criteria as set forth in Section 6.12 of the Basis of Review.

(6) Because of the documented use of the site by listed species, efforts should be made to increase the value of the preserved areas to those species (e.g., by providing an upland corridor between the current conservation area and proposed CT-8 and CT-9). Upland connections between preserved wetlands should be provided, where possible, to minimize impacts to listed species.

WESTERN GROVE



Site Location
Tradition DRI
Treasure Coast Airpark
City of Port St. Lucie Boundary
County Boundary
Minor Roads
Major Roads

- Tradition Development Company, LLC — Owner
- Canin Associates, Inc. — Planning & Landscape Architecture
- Fishkind & Associates, Inc. — Economics
- EDC — Civil Engineers
- Pinder Troutman Consulting, Inc. — Traffic
- Ruden McCloskey — Legal
- Vanasse Hangen Brustlin, Inc. — Environmental

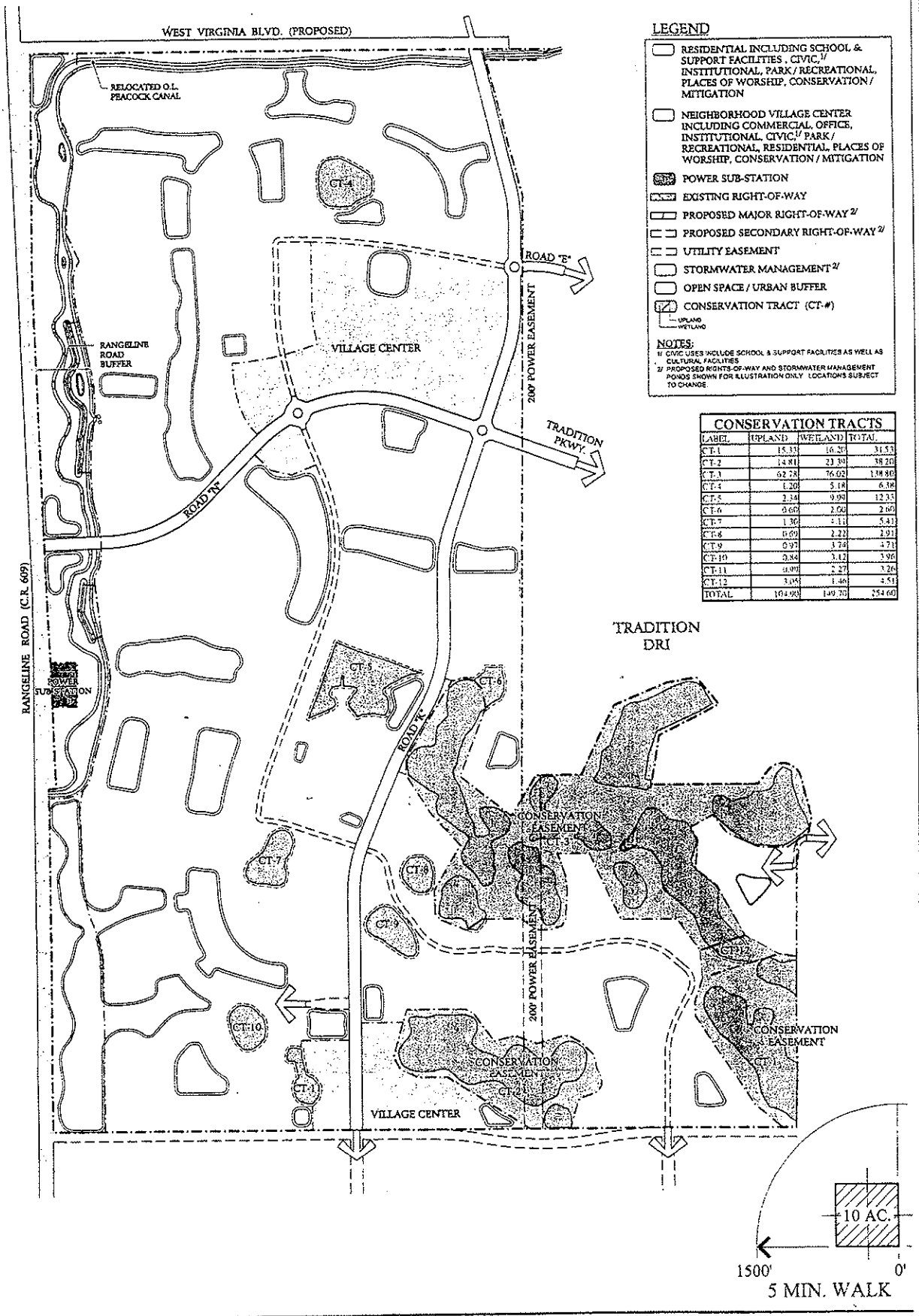
500 0 500 10001500 Feet

Map A
General Location Map

i:\gis\204061\loc_map_v2.apr Modified: Sept 17, 2004

EXHIBIT 1

WESTERN GROVE



CONSERVATION TRACTS

LABEL	UPLAND	WETLAND	TOTAL
CT-1	15.33	16.20	31.53
CT-2	14.81	23.39	38.20
CT-3	62.78	76.02	138.80
CT-4	1.20	5.18	6.38
CT-5	2.34	9.99	12.33
CT-6	0.60	2.00	2.60
CT-7	1.30	4.11	5.41
CT-8	0.69	2.22	2.91
CT-9	0.97	3.74	4.71
CT-10	0.84	3.12	3.96
CT-11	0.99	2.27	3.26
CT-12	3.05	1.46	4.51
TOTAL	104.90	149.70	254.60

- Tradition Development Company, LLC — Owner
- Canin Associates, Inc. — Planning & Landscape Architecture
- Fishkind & Associates, Inc. — Economics
- EDC — Civil Engineers
- Pinder Troutman Consulting, Inc. — Traffic
- Ruden McClosky — Legal
- Vanasse Hangen Brustlin, Inc. — Environmental

Map H (Revised)
Master Developme[illegible]

G:\204061\pl\sheets\DRI\msph-mstrdp.dwg

EXHIBIT 2

MARTIN COUNTY
BOARD OF COUNTY COMMISSIONERS
2401 S.E. MONTEREY ROAD • STUART, FL 34996

Telephone: (772) 288-5421
Fax: (772) 288-5432
Email: svallier@martin.fl.us

DOUG SMITH
Commissioner, District 1

SUSAN L. VALLIERE
Commissioner, District 2

LEE WEBERMAN
Commissioner, District 3

SARAH HEARD
Commissioner, District 4

MICHAEL DITERLIZZI
Commissioner, District 5

DUNCAN BALLANTYNE
County Administrator

STEPHEN FRY
County Attorney

March 21, 2006

RECEIVED
MAR 29 2006
TREASURE COAST
REGIONAL PLANNING COUNCIL

Michael J. Busha, AICP
Executive Director
Treasure Coast Regional Planning Council
301 East Ocean Boulevard, Suite 300
Stuart, FL 34994

Regarding: Proposed Western Groves Development of Regional Impact (DRI).

Dear Mr. Busha:

This letter is in response to your letter of February 24, 2006 seeking input on the Western Groves DRI. The DRI application remains insufficient.

The application does not include clearly identifiable and verifiable triggers that will require contributions to beach access, boat ramp access and road construction be complete before each of the four phases, listed in the application, can begin. The application materials do not include a funding formula that includes a mechanism for Western Groves to contribute to maintaining the level of service for beach access, and boat ramp access. The materials do not include a funding formula that assists Martin County with constructing improvements to County Road 609, the western corridor and State Road 714.

The joint transportation study for the four DRIs has recently been completed and shows impacts to roads in Martin County. The DRI should be revised to detail the necessary road improvements outside the Western Annexation Area, and the proportionate share of the improvements Western Groves will fund or construct.

The Treasure Coast Regional Planning Council has contracted with Government Services Group, Inc. to produce a report on the appropriate transfer payments Western Groves, should make to Martin County for beach and boat ramp impacts. Martin County staff supports both the methodology and the results detailed in the draft report obtained February 27, 2006.

The methodology in the report does not attempt to estimate the number of residents from Developments of Regional Impact that will use Martin County Beaches and Boat Ramps because that number changes from one month to the next, from one year to the next and from one survey to the next. Rather, it is appropriate to consider the geographic proximity of the new developments to all of the facilities provided year after year, regardless of political boundary.

TELEPHONE
772-288-5400

WEB ADDRESS
http://www.martin.fl.us

Please see the attached Board item presented to the Martin County Board of County Commissioners on March 7, 2006. It shows a proposed boat ramp and is an example of the on-going efforts and expenditures Martin County is making to provide a scarce public good for present and for future generations.

Please note these issues in the staff report that will be generated on the Western Groves DRI applicant. And please factor these issues into the recommendation made by TCRPC staff.

Sincerely,

Susan L. Valliere

Susan L. Valliere, Chairman,
Martin County
Board of County Commissioners.

Cc: Duncan Ballantyne, County Administrator
Dan Hudson, Deputy County Administrator
Douglas M. Anderson, County Administrator, St. Lucie County
Michael Busha, Executive Director, Treasure Coast Regional Planning Council
Roger Wilburn, Regional Planning Administrator, Department of Community Affairs

BOARD OF COUNTY COMMISSIONERS AGENDA ITEM SUMMARY

7A

PLACEMENT: Requests and Presentations	**PRESET:** 3:30 PM
AGENDA ITEM DATES:	
MEETING DATE:3/7/2006 COMPLETE BY:2/8/2006	COUNTY ATTORNEY:2/13/2006 DCA AND ACA:2/20/2006
WORDING: **PRESENTATION OF THE PRELIMINARY CONCEPTUAL PLANS FOR JENSEN BEACH BOAT RAMP, FKA CARP PARCEL**	

REQUESTED BY:	**Parks and Recreation:**	**PREPARED BY:**
Robert F. Denison Director	Robert F. Denison Director	Kevin Landry Park Planning & Development Administrator
DOCUMENT(S) REQUIRING ACTION: FIND Resolution		
QUASI-JUDICIAL: NO		

EXECUTIVE SUMMARY:

Staff has conducted and completed the public input phase for the preparation of plans of the proposed Jensen Beach Boat Ramp. Staff is presenting conceptual plans for the development of the site and is seeking Board input and acceptance. Upon acceptance by the Board, Staff will move forward with the permitting process for the project.

BACKGROUND:

The CARP Parcel was purchased by Martin County with the intention of building a new public boat ramp. As directed by the Board in July 2005, Staff has moved forward with development plans for the Jensen Beach Boat Ramp. To date, Staff has hired a consultant via the Competitive Consultant Negotiation Act. The Consultant has completed initial data collection, which includes site contextual analyses and public input.

ISSUES:

Community Input: Staff conducted a public workshop to gather citizen input on November 16, 2005. Over 50 citizens attended the workshop. Staff collected valuable input from the attendees and modifications were made to the plan based upon that input. A summary of the findings is outlined in the attached Power Point presentation.

The site plan was presented to the Parks and Recreation Advisory Board (PRAB) on November 17, 2005. The PRAB voted unanimously to support the project and the project site plan.

Staff has also met with representatives of the owner of the property immediately adjacent to the north boundary of the site on two occasions. The owner's representatives raised no objections or concerns.

The U.S. Sailing Center leases County owned land to the south of the project. Staff has attempted to ascertain and address the concerns of the Sailing Center. Staff has met with Sailing Center representatives on four occasions dating back to May of 2004. The plans have been modified as per the concerns of the Sailing Center. The plan modifications are enumerated in an attachment to this item titled "Sailing Center Concerns".

Permitting: The Florida Department of Environmental Protection (FDEP) and U. S. Army Corps

of Engineers (ACOE) will have to authorize stormwater system and water related features. A joint application will be used to request both approvals. Key environmental issues include manatees and seagrasses. To address the possible concerns, this project will include a manatee protection plan, seagrass avoidance using buoys plan and minimization of net seagrass loss by providing for seagrass transplant. If required, mitigation actions of mangrove plantings have been evaluated and may be proposed. At least 90 calendar days, after application submittal, are anticipated to be needed to secure the FDEP permit with a longer time period for the ACOE permit. The actual time required is dependent upon the quantity/recurrence of agency comments and requests for additional data.

Installation of buoys will require approval from the Florida Fish and Wildlife Conservation Commission and United States Coast Guard. Neither is anticipated to delay final implementation of the project. Based upon the permitting experiences of similar facilities, Staff and the Consultant are estimating that state and federal permits can be obtained by September.

Immediately following receipt of state and federal permits, the Staff Public Project Review Team (SPPRT) will review the project. Since the estimated cost of the project will exceed $1 million, Final Site Plan Approval from the Board will be required. The Consultant will proceed with the preparation of construction Contract Documents following Board approval.

If adequate funding has been secured, the project could be advertised for sealed bids in January 2007. Bidding and construction of the project should take no longer than 9 months. The project should be open by November 2007.

Funding: The funding source on the "New Boat Ramp Facility", FY 2006 Capital Improvements Plan (CIP) detail sheet (attached) indicates $1,750,000 in funding from a future Florida Communities Trust (FCT) Grant. Staff applied for $1.7 million in FCT grant funds in May of 2005. The grant application did not rank high enough to be funded. Although the application has moved closer to funding due to the inability of some of the higher ranked projects to materialize, it seems unlikely that Martin County will be awarded a grant during this funding cycle.

Staff can re-apply for the FCT grant in the upcoming grant cycle. Staff has reason to believe that the project might be funded if the project were to acquire an acknowledgement from state regulatory agencies that the proposed storm water management system for the project would be an improvement over the existing storm water management system; however, there is no guarantee that this project will receive FCT funding.

The County collects approximately $679,000 in Boat Ramp Impact Fees and $160,000 in Florida Boating Improvement Funds (FBIP) annually. The Board authorized expenditure of Boat Ramp Impact Fees to pay the $263,000 annual loan debt payment on the purchase of the boat ramp site. Taking into account the existing fund balances and the loan debt payment, Staff estimates that there will be $1,186,000 in Boat Ramp Impact Fees and FBIP collections in fiscal year 2007.

Staff has also applied for $200,000 in Florida Recreation Development Assistance Program (FRDAP) grant funds. The initial rankings indicate that the project grant would be awarded if the state chooses to fund the program at past funding levels.

Staff can apply for a Florida Inland Navigation District (FIND) grant in the amount of $325,000 if the Board chooses to direct Staff to proceed; however, this may conflict with the desire of the Coastal Engineer to apply for the same grant funds. A list of all projects potentially eligible in the County/City will be provided by Supplemental Memorandum. Funding expected to be available to the County/City is $325,000 total. If it is the Board's desire to direct Staff to apply for the FIND grant in the amount of $325,000 for this project, Staff requests that the Board adopt the attached

FIND Grant Resolution.

Assuming that the FRDAP and FIND grants will be approved, the total amount of dollars available for construction of the project will be $1,711,000. The result of the permitting process will have some affect on the cost of site development. At this time, the Consultant has estimated that the cost of constructing the project could be $1.5 to $1.7 million.

RECOMMENDED ACTION:

Recommendation

Accept the Preliminary Conceptual Site Plan and direct Staff to proceed with all development approval permit applications.

Direct Staff to apply for a $325,000 FIND Grant.

Approve the FIND Grant Resolution.

Alternative Recommendations

Provide Staff with direction on how to revise the Preliminary Conceptual Site Plan.

Provide Staff with direction on the FIND Grant.

FISCAL IMPACT:

Recommendation

The acceptance of the Preliminary Conceptual Site Plan will have no fiscal impact. Staff will bring forward funding options for site development during the approval of the FY 2007 CIP workshops.

The County could receive up to $325,000 in FIND Grant financial assistance for construction of the boat ramp.

Alternative Recommendations

Dependent on Board direction.

APPROVAL:

ASD

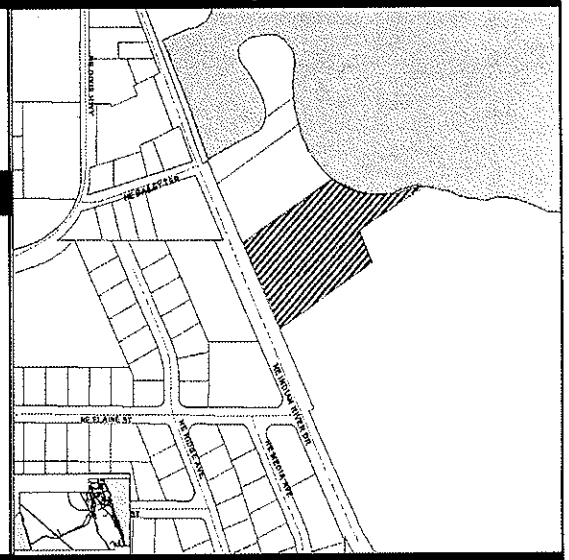
COUNTY ADMINISTRATOR
ASSISTANT COUNTY ADMINISTRATOR
COUNTY ATTORNEY

Project Information

Project: **2055**
Title: **New Boat Ramp**
Location: **Jensen Beach**
District: **District #1**
CRA: **NA**

Status: **Adopted**
Category: **Parks & Recreation**
Business Center: **Capital Improvement Plan**
Estimate Level: **2**

Project Location Map



Project Description and Scope

Development of a new boat ramp facility at the CARP site on Indian River Drive in Jensen Beach including a public boat launch ramp, restrooms and ancillary facilities.

County will seek reimbursement of funds used to purchase land via a Florida Communities Trust Grant. If the grant is awarded, funds from the reimbursement will be used to fund construction. If the grant is not received, construction will not begin in FY 2006 unless an alternate funding source is found.

Expenditures	Total	Expended To Date	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Construction	1,700,000	0	1,700,000	0	0	0	0	0	0	0	0	0
Design	170,000	170,000	0	0	0	0	0	0	0	0	0	0
Land	3,900,000	3,900,000	0	0	0	0	0	0	0	0	0	0
Study	97,000	97,000	0	0	0	0	0	0	0	0	0	0
Total Expenditures:	**5,867,000**	**4,167,000**	**1,700,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Revenues	Total	Appropriated To Date	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Boat Ramp Impact Fees	1,167,000	1,167,000	0	0	0	0	0	0	0	0	0	0
FCT Grant	1,700,000	0	1,700,000	0	0	0	0	0	0	0	0	0
Loan	3,000,000	3,000,000	0	0	0	0	0	0	0	0	0	0
Total Revenues:	**5,867,000**	**4,167,000**	**1,700,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Operating Budget Impact

	FY 2006	FY 2007	FY 2008
Unknown.			

Level of Service (LOS) Analysis

LOS Category: N/A
Required LOS:
LOS deficiency: N/A
Change to LOS:

Jensen Beach Boat Ramp
Sailing Center Concerns

Results of Parks and Recreation Department staff meetings with representatives of the Sailing Center on May 5, 2004.

Comment
Concerned about safety children sailing in close proximity to motor boats
Solution
Signage will be placed at the boat launch indicating the direction of the boat channel & directing motor boaters to yield the right-of-way to sailboats. Floating marker buoys spaced 12 feet apart will separate motorboat and sailing use areas. There may be a need for the Sailing Center to seek Sheriff's Marine Patrol Assistance during regatta events.

Comment
Provide a 6' fence to separate the boat ramp and Sailing Center
Solution
County will build new 6' shadow box fence to separate uses

Comment
Request continue use of the 150' of beach" beginning at the property which used to separate the former Matthews parcel from the former CARP parcel for launching of sailboats.
Solution
A post and rail fence will separate the boat ramp area from the sailing area as described.

Comment
Previous site plans that depicted a common entrance off of Indian River Drive for the boat ramp and Sailing center would create conflicts between user groups. Boat launch car/trailer traffic should be kept out of sailing center area.
Solution
The site plan was revised to create a separate vehicular entrance for the boat ramp. There will be no vehicular connection to Sailing Center.

Comment
Boat ramp patrons utilizing restrooms at Sailing Center could cause operational problems for the Sailing Center
Solution
The County will construct a separate restroom building on the boat ramp site

Comment
The Sailing Center will need 75-100 parking spaces for Sailing Center events held 4-6 times per year.
Solution
County will reconstruct the existing gravel parking spaces. Although a portion of the former Matthews parcel will have to be altered to accommodate storm water retention, adequate space will exist on the Matthews parcel for remaining parking. If the Sailing Center will coordinate special events with the Indian RiverSide Park Manager, there is a possibility that additional overflow parking could be available at Indian RiverSide Park.

GunsterYoakley

Our File Number: 10758.00034
Writer's E-Mail Address: rraynes@gunster.com

February 2, 2006

BY HAND DELIVERY

Mr. Kevin L. Landry
Park Planning and Development Administrator
Martin County Parks and Recreation Dept.
Martin County Administrative Center
2401 SE Monterey Road
Stuart, FL 34996

Re: Proposed Jensen Beach Boat Ramp

Dear Kevin:

This letter will confirm that our client AA Marina, LLLP, met with you, your consultants and other representatives of the Martin County Parks and Recreational Department on May 19, 2005, and November 4, 2005, regarding the boat ramp that Martin County is proposing in Jensen Beach. Based on the proposed site plan shown to us at those meetings, I am pleased to inform you that AA Marina, LLLP, has no objections to the boat ramp as it is currently being proposed. Please be advised that AA Marina, LLLP, will reserve the right to object to any significant or substantive changes that may occur to the project as it goes through the development approval process.

We request that you keep us informed regarding any meetings, hearings or proposed changes regarding this project.

Thank you.

Sincerely,

Robert S. Raynes, Jr.

RSR/dlw/ Stuart 214257.1

cc: Mr. Robert Henninger

ATTACHMENT E-6
RESOLUTION FOR ASSISTANCE
UNDER THE FLORIDA INLAND NAVIGATION DISTRICT
WATERWAYS ASSISTANCE PROGRAM

WHEREAS, THE Board of County Commissioners of Martin County is interested in carrying out the following described project for the enjoyment of the citizenry of Martin County and the State of Florida:

Project Title: Jensen Beach Boat Ramp

Total Estimated Cost: $1,500,000

Brief Description of Project: Construction of a four lane boat ramp with parking spaces for 45 boat trailers, a waterfront picnic area, restroom and other ancillary facilities.

AND, Florida Inland Navigation District financial assistance is required for the program mentioned above,

NOW THEREFORE, be it resolved by the by the Board of County Commissioners of Martin County that the project described above be authorized;

AND, be it further resolved that said Board of County Commissioners of Martin County make application to the Florida Inland Navigation District in the amount of 22% of the actual cost of the project in behalf of said Board of County Commissioners of Martin County;

AND, be it further resolved by the Board of County Commissioners of Martin County that it certifies to the following:

1. That it will accept the terms and conditions set forth in FIND Rule 66B-2 F.A.C. and which will be a part of the Project Agreement for any assistance awarded under the attached proposal.

2. That it is in complete accord with the attached proposal and that it will carry out the Program in the manner described in the proposal and any plans and specifications attached thereto unless prior approval for any change has been received from the District.

3. That it has the ability and intention to finance its share of the cost of the project and that the project will be operated and maintained at the expense of said Board of County Commissioners of Martin County for public use.

4. That it will not discriminate against any person on the basis of race, color or national origin in the use of any property or facility acquired or developed pursuant to this proposal, and shall comply with the terms and intent of the Title VI of the Civil Rights Act of 1964, P. L. 88-352 (1964) and design and construct all facilities to comply fully with statutes relating to accessibility by handicapped persons as well as other federal, state and local laws, rules and requirements.

5. That it will maintain adequate financial records on the proposed project to substantiate claims for reimbursement.

6. That it will make available to FIND if requested, a post-audit of expenses incurred on the project prior to, or in conjunction with, request for the final 10% of the funding agreed to by FIND.

This is to certify that the foregoing is a true and correct copy of a resolution duly and legally adopted by the Board of County Commissioners of Martin County at a legal meeting held on this 7th **DAY OF** MARCH 2006

ATTEST:

BOARD OF COUNTY COMMISSIONERS
MARTIN COUNTY, FLORIDA

Marsha Ewing, Clerk of Court

Susan Valliere, Chairman

APPROVED AS TO FORM AND CORRECTNESS:

Stephen Fry, County Attorney

Agenda Date Item Number

Batch Number Input Date

Form No. 90-21 (Effective date 12-17-90, Rev. 10-14-92)

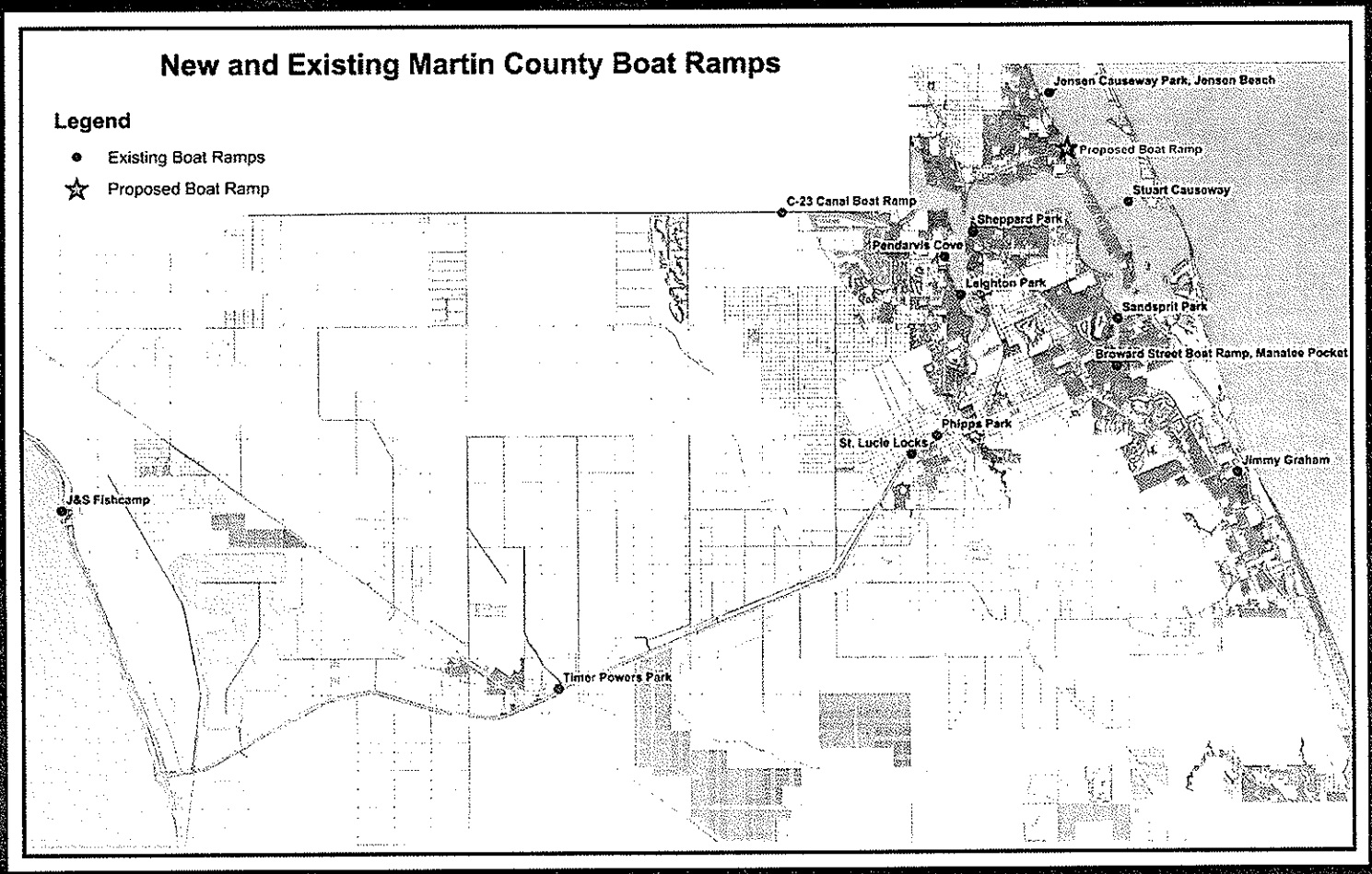
Jensen Beach Boat Ramp Park

Martin County
Parks and Recreation Department

Jensen Beach Boat Ramp Park

- Need for a New Boat Ramp
- Public Involvement Process
- Conceptual Plan
- Resources and Permitting
- Timeline
- Funding

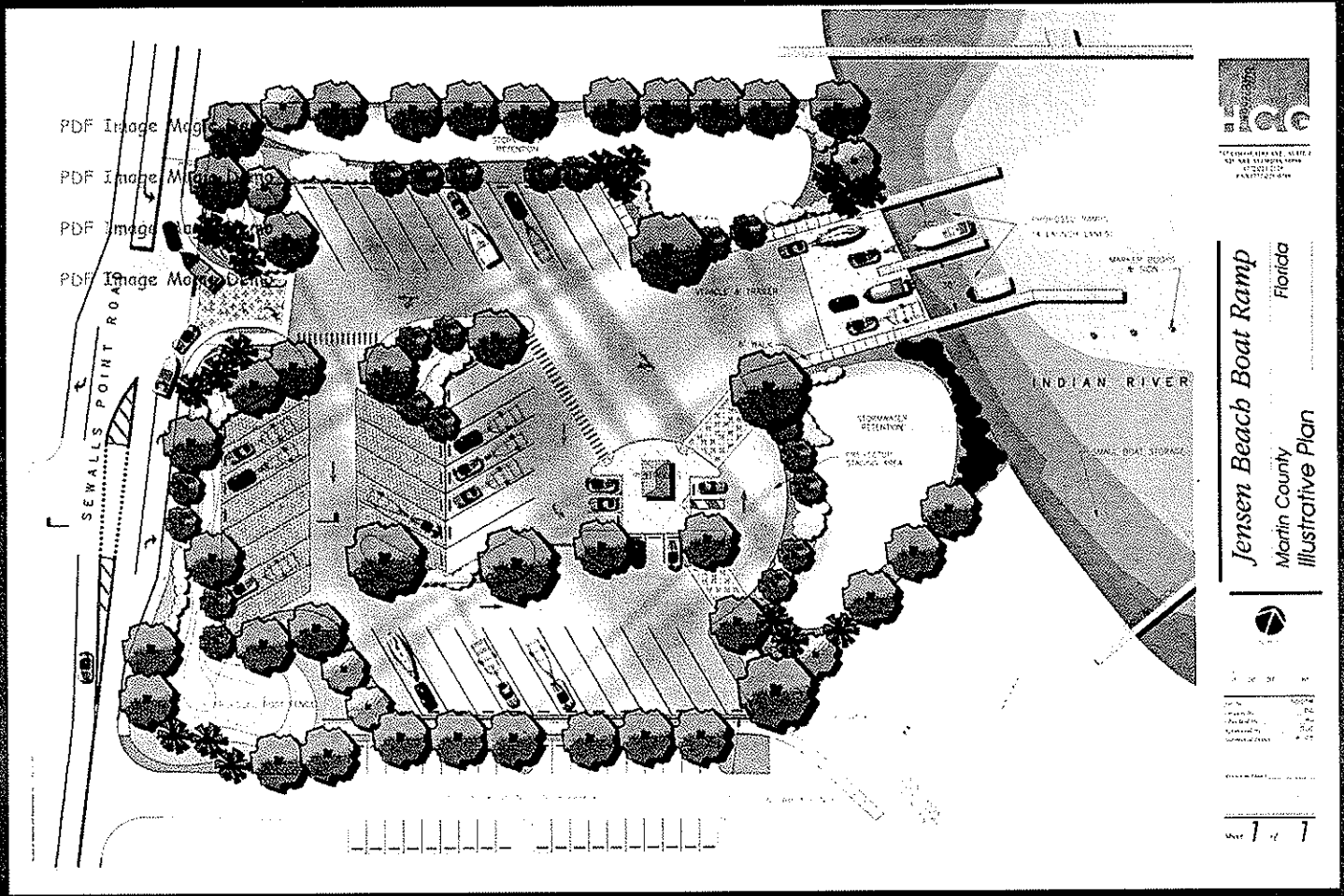
The Need for a New Boat Ramp



The Need for a New Boat Ramp

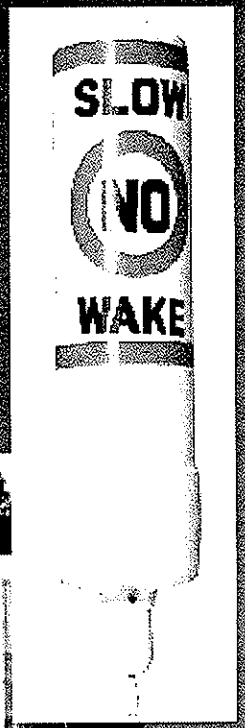
- Boat Ramp and Beach Survey – February 2003
  - 30% ramp users from outside Martin County
  - Reason for choosing ramp - close to destination (44%)
  - Purpose - offshore fishing (36%)
  - Usually launched by 10:00 AM (68%)
  - 44% ramp users only boat on weekends
  - Usual trip lasts nearly 6 hours

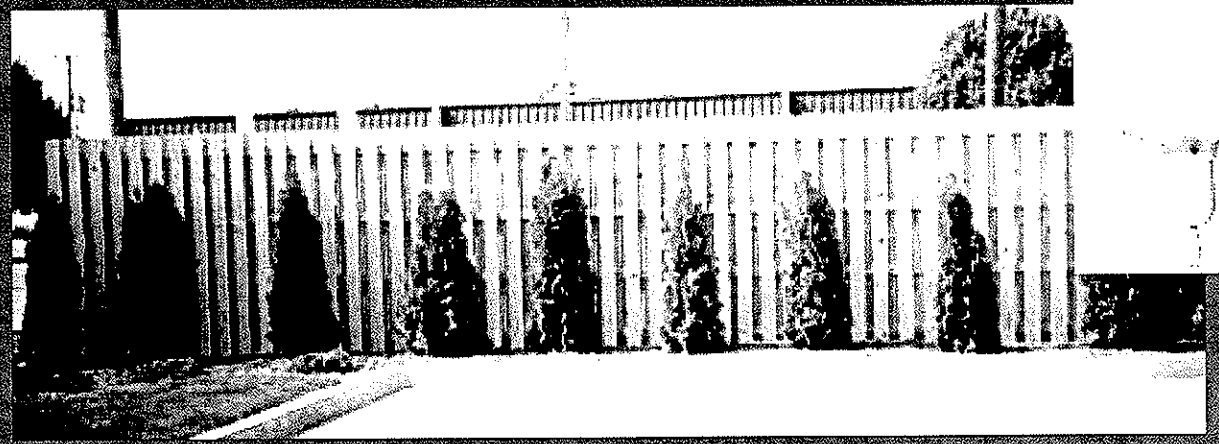
Conceptual Plan



Conceptual Plan

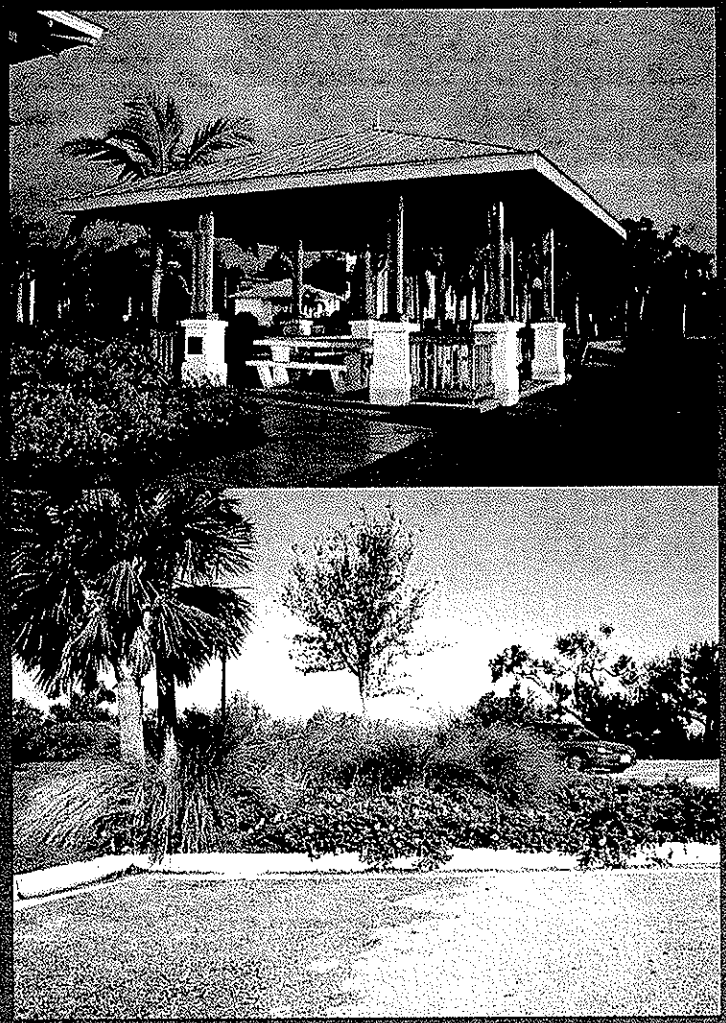
- Preventing conflicts between ramp use and Sailing Center





Conceptual Plan

- Picnic area and native landscaping

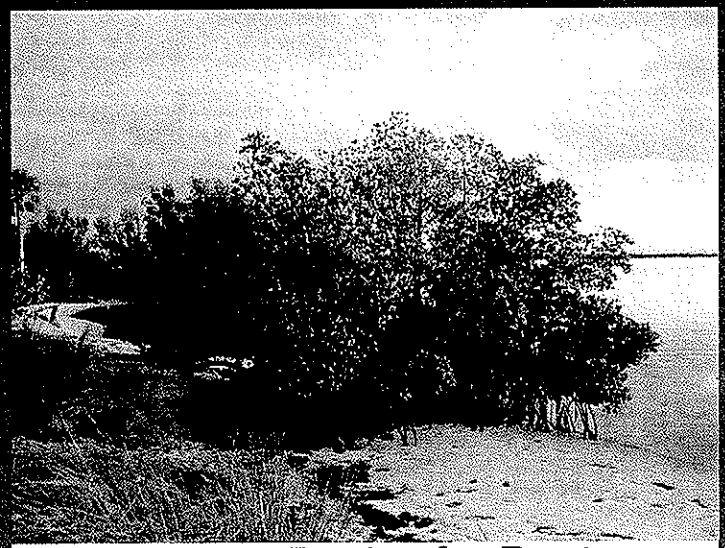


Conceptual Plan

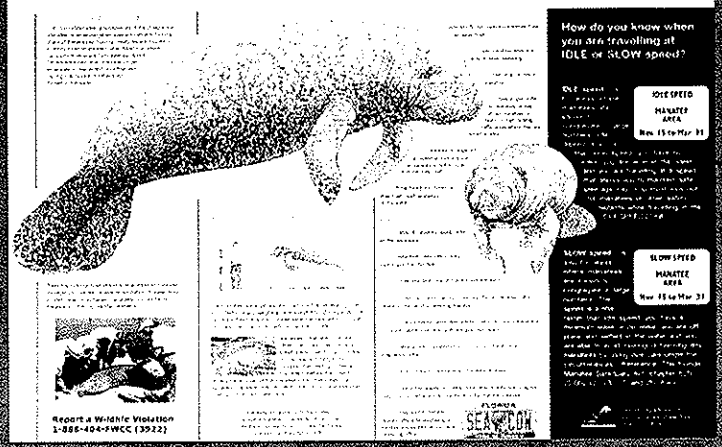
- Restroom and floating docks

Conceptual Plan

- Mangrove plantings and manatee protection



Manatee Basics for Boaters



Jensen Beach Boat Ramp Park

- Public Involvement Process
  - Huizinga Holdings meeting
    - 2 meetings
    - No issues raised
  - Martin County Sailing Center meeting
    - 4 meetings
    - Issues addressed

Public Involvement Process

0120 NOTICE OF MEETING

MARTIN COUNTY
BOARD OF COUNTY
COMMISSIONERS
NOTICE OF PUBLIC
INPUT METING

Martin County Board of County Commissioners Parks and Recreation Department will conduct a public meeting regarding grant funding for construction of Jensen Beach Boat Ramp Park. The sole purpose of the meeting will be to discuss a $200,000.00 application for a Florida Recreation Development Assistance Program that will finance the land development.

The meeting will be conducted on the following date, time and location:

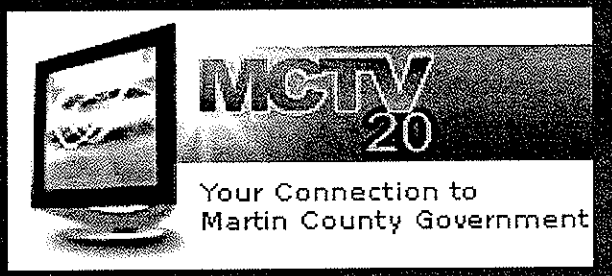
Day:Thursday
Date:September 8, 2005
Time:6:00 p.m.
Location:Martin County
Administration Center
Commission Chambers
2401 SE Monterey Road
Stuart, Florida 34996

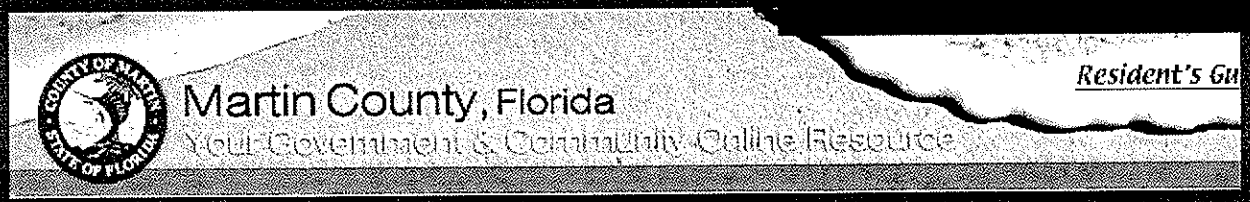
Pub: September 2, 2005
1200169

Published on November 15, 2005,
Stuart News,

Workshop to discuss building boat ramps

JENSEN BEACH -- Martin County will have an open house Wednesday evening to discuss plans for building boat ramps at the new Boat Ramp Park along the Indian River. To meet demand for water access in northern Martin and southern St. Lucie counties, Martin County spent $3.9 million to buy the 4.8-acre site, adjacent to the U.S. Sailing Center of Martin County, north of Indian RiverSide Park.





Jensen Beach Boat Ramp Park

- Public Workshop
  - November 16, 2005, Indian RiverSide Park, 5:00 – 8:00 PM
  - In excess of 50 citizens participated
  - Comment cards were distributed and collected

Jensen Beach Boat Ramp Park

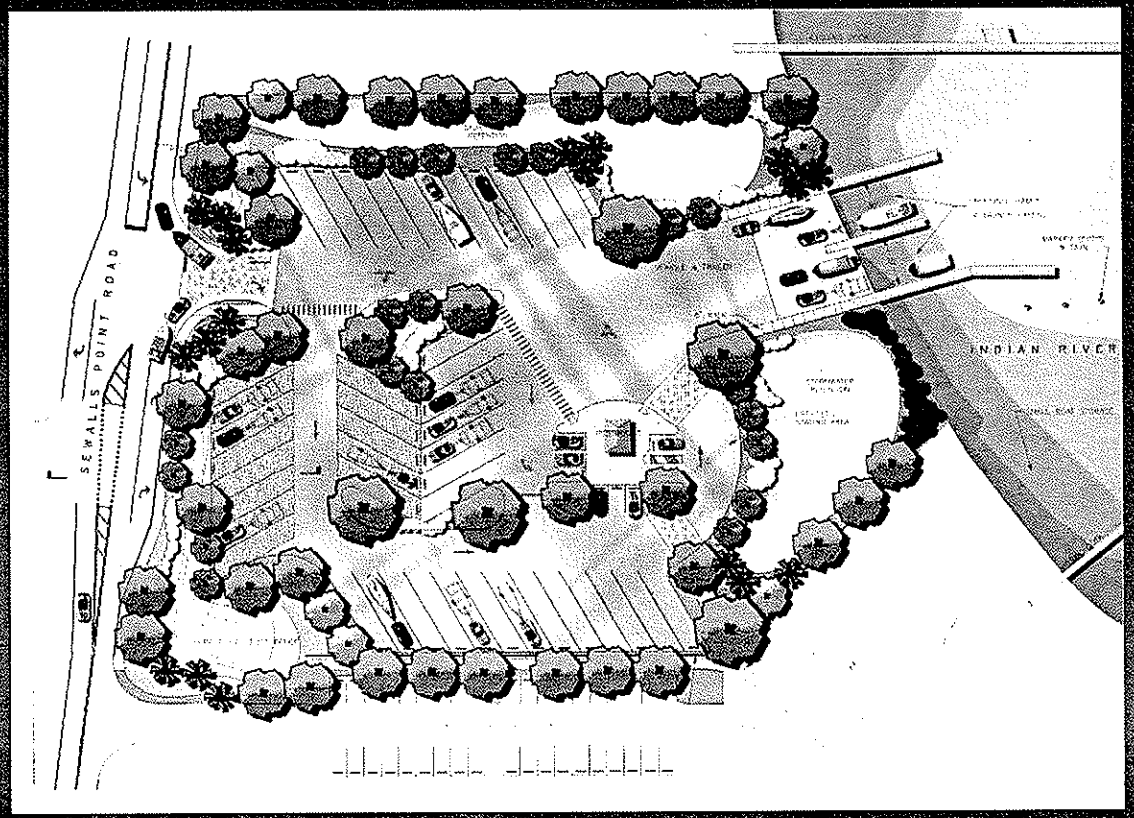
- Public Workshop Comments
  - Pay for launch site?
  - Potential traffic conflicts between ramp users and Sailing Center.
  - Use sabal palms in lieu of canopy trees in the internal landscape islands of parking lot.
  - Eliminate landscaping adjacent to the pre-launch staging area.
  - Eliminate landscaping at top of the ramp.
  - Change southern pier to straight configuration.

Jensen Beach Boat Ramp Park

- Public Workshop Comments (continued)
  - Consider extending the middle and north finger pier for additional tie space.
  - In the event of a south or southeast wind, returning boats approach the ramp at an angle from the south to compensate for winds. Should the navigable area southeast of the ramp increase to accommodate this?
  - Need to include placement of NO PARKING signs along Indian River Drive in the plans.
  - Increase number of car parking spots.

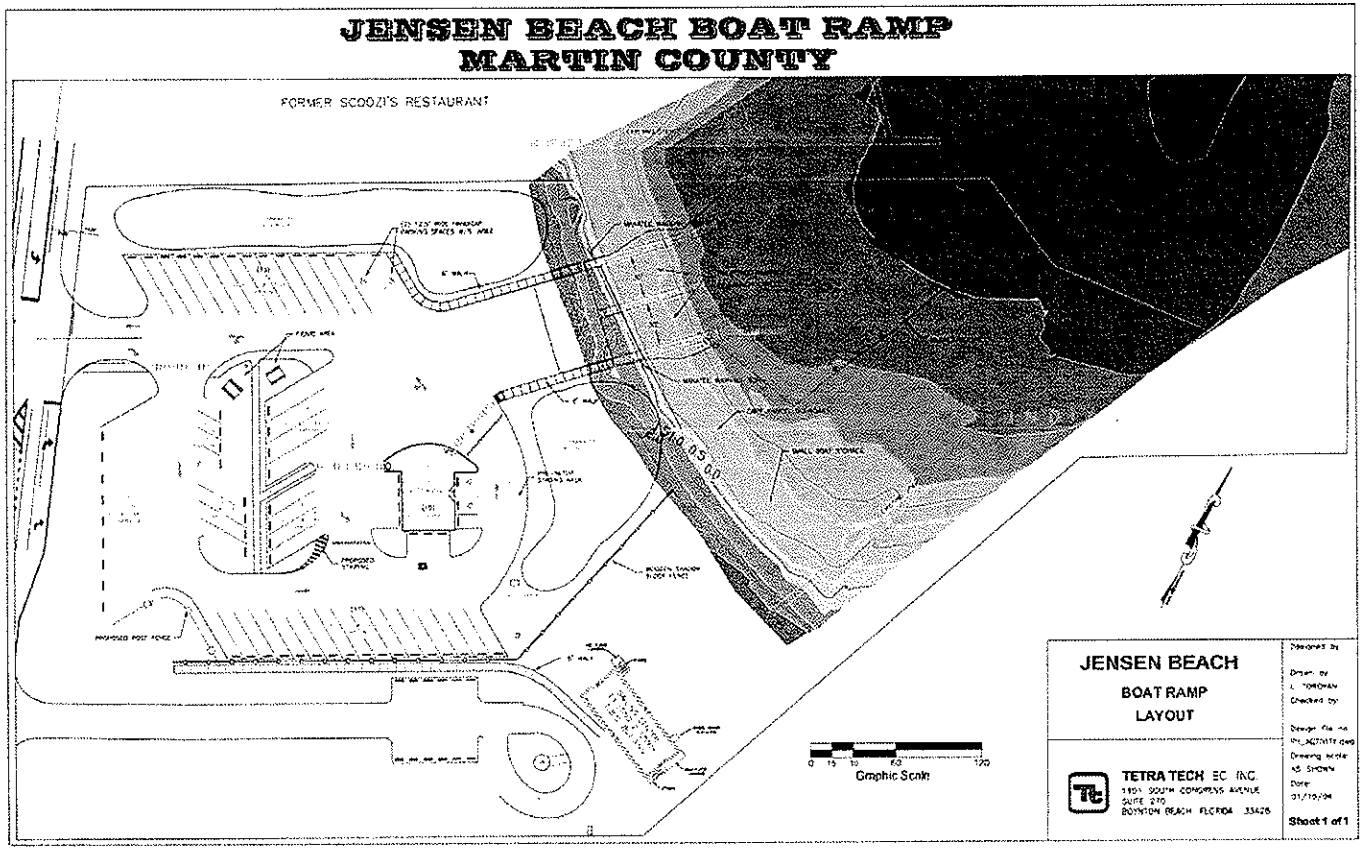
Jensen Beach Boat Ramp Park

Conceptual Plan Based on Input



Jensen Beach Boat Ramp Park

Bathymetry after Dredging

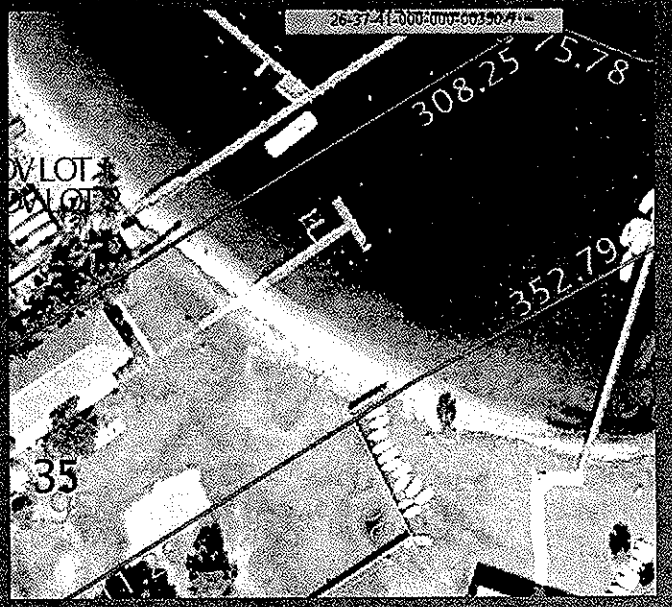


Permitting

- Required Agency Approvals
  - Florida Department of Environmental Protection
  - U.S. Army Corps of Engineers
  - Florida Fish & Wildlife Conservation Commission & U.S. Coast Guard (buoy system)
  - Local Authorities

Permitting

- Key Environmental Considerations
  - –Manatees
    - Manatee Protection Plan
  - –Seagrass Impacts
    - Avoidance and Minimization
      - –Transplantation
      - –Buoy System



Permitting

Timeframe for FDEP and USACOE Permits

At least 1 Request for Additional Information (RAI) is expected from FDEP and ACOE

With just 1 RAI, at least 90 and 115 days will be required to receive permits from FDEP and ACOE, respectively

Each additional RAI will add at least 60 days

Jensen Beach Boat Ramp Park

- Commission Authorization
  - Property purchased in early 2004 for $3.9 million
  - $263,000 annual loan payment from Boat Ramp Impact Fees
- Grant Funding
  - FCT - $1.7 million, not awarded
  - FRDAP - $200,000, high probability
  - FIND - $325,000, need Board direction

BCC MEETING DATE: March 7, 2006
AGENDA ITEM: 7A

MARTIN COUNTY, FLORIDA
SUPPLEMENTAL MEMORANDUM

TO: Honorable Members of the Board of County Commissioners **DATE:** February 21, 2006

VIA: Duncan Ballantyne
County Administrator

FROM: Kathy FitzPatrick, P.E., Coastal Engineer

REF: Presentation of the Preliminary Conceptual Plans for Jensen Beach Boat Ramp, FKA CARP Parcel.

SUBJECT: 2006-03-07 Conceptual Plan for Jensen Beach Boat Ramp

On January 24, 2006 the Martin County BOCC instructed staff to move forward with initial planning, design and permitting for a Manatee Pocket Channel construction project. The Board also requested staff to aggressively pursue all grant opportunities that would defray the County's expense in this effort. The Florida Inland Navigation District (FIND) Waterways Assistance Program (WAP) presents the first grant opportunity for this project. FIND is currently accepting applications for qualifying projects, with a deadline of March 31, 2006. FIND can fund up to 75% of design and permitting costs for projects such as Manatee Pocket, however these funds will not be released until a construction contract has been executed. Funds covered under the grant can be spent prior to grant contract execution upon special authorization of the FIND Board, but cannot be spent prior to the beginning of the fiscal year (October 1).

Martin County has $325,000 in FIND funds available for all eligible projects within the County. Martin County Parks Department is requesting Board approval of a grant request for the full $325,000 to fund the Jensen Beach Boat Ramp. The City of Stuart may apply for up to $150,000 to fund the Sheppard Park Boat ramp; however a final decision has not been made at this time. No other outside grant requests for the Martin County funds are known at this time.

Issues:
Project costs for Manatee Pocket in FY 07 are estimated to be $220,000. Martin County could receive up to $165,000 in grant funds from FIND, however there would not be sufficient WAP funds available to fund both Martin County projects for the total amount requested.

At this time the County can request 100% of the eligible costs for each project, however FIND will request prioritizing the projects or recommending a funding split at some future time during the FIND Board's funding process. One key factor will be the requirement that the Jensen Beach boat ramp have all state and federal permits in place by September 22, 2006 to remain eligible for FY07 FIND grant funds.

Recommended Action:

Recommendation
Accept the Preliminary Conceptual Site Plan for the Jensen Beach boat ramp and direct staff to proceed with all development approval permit applications for this project.

Direct Staff to prepare individual grant applications to the FIND Waterways Assistance Program for the

Jensen Beach boat ramp and the Manatee Pocket Phase 1 work, with each application requesting 100% of the funds available to each of these Martin County projects. Authorize the County Administrator to execute grant applications, awards and related documents required to complete the grant process for each application, upon concurrence from the County Attorney. Authorize the execution of a budget resolutions for each project in the amount awarded by the FIND Board.

Approve the 2 FIND grant application resolutions attached; 1 for the Jensen Beach boat ramp and 1 for the Manatee Pocket Phase 1 work.

Alternative Recommendation:
Provide Staff with direction on how to revise the Preliminary Conceptual Site Plan.

Provide Staff with direction on revisions to the funding requests in one or both of the FIND grant applications.

Fiscal Impact:

Recommendations

The acceptance of the Preliminary Conceptual Site Plan for the Jensen Beach boat ramp will have no fiscal impact. Parks and Recreation staff will bring forward funding options for site development during the approval of the FY 2007 CIP workshops

The County could receive up to $325,000 in combined grant funds for the two eligible projects.

Alternative Recommentation:

Dependent on Board direction.

BEFORE THE BOARD OF COUNTY COMMISSIONERS
MARTIN COUNTY, FLORIDA

RESOLUTION NO. _____

A RESOLUTION APPROVING AN APPLICATION FOR THE FLORIDA INLAND NAVIGATION DISTRICT WATERWAYS ASSISTANCE PROGRAM

WHEREAS, The Board of County Commissioners (BOCC), Martin County, Florida, is interested in carrying out the Florida Inland Navigation District Waterways Assistance Program following described project for the enjoyment of the citizenry of Martin County and the State of Florida:
Project Title: Manatee Pocket Channel, Phase I
Total Estimated Cost $ $220,000.00
Brief Description of Project: The access channel will allow three existing docks to be shortened by approximately 300 feet each, which will improve boating safety.

AND, Florida Inland Navigation District financial assistance is required for the program mentioned above,

NOW THEREFORE, be it resolved by the BOCC, Martin County, Florida, that the project described above be authorized,

AND, be it further resolved that said Martin County BOCC make application to the Florida Inland Navigation District in the amount of 75% of the actual cost of the project in behalf of said Martin County BOCC.

AND, be it further resolved by the Martin County BOCC that it certifies to the following:
1. That it will accept the terms and conditions set forth in FIND Rule 66B-2 F.A.C. and which will be a part of the Project Agreement for any assistance awarded under the attached proposal.
2. That it is in complete accord with the attached proposal and that it will carry out the Program in the manner described in the proposal and any plans and specifications attached thereto unless prior approval for any change has been received from the District Form No. 90-21 (Effective date 12-17-90, Rev. 10-14-92) (1)
3. That it has the ability and intention to finance its share of the cost of the project and that the project will be operated and maintained at the expense of said Martin County BOCC for public use.
4. That it will not discriminate against any person on the basis of race, color or national origin in the use of any property or facility acquired or developed pursuant to this proposal, and shall comply with the terms and intent of the Title VI of the Civil Rights Act of 1964, P. L. 88-352 (1964) and design and construct all facilities to comply fully with statutes relating to accessibility by handicapped persons as well as other federal, state and local laws, rules and requirements.

5. That it will maintain adequate financial records on the proposed project to substantiate claims for reimbursement.
6. That it will make available to FIND if requested, a post-audit of expenses incurred on the project prior to, or in conjunction with, request for the final 10% of the funding agreed to by FIND.

The Phase I activities will include design and permitting of a channel through Manatee Pocket, in Stuart, Florida. Phase I activities are expected to be complete in Fall 2007, with construction to follow.

This is to certify that the foregoing is a true and correct copy of a resolution duly and legally adopted by the Martin County BOCC at a legal meeting held on this 16th day of March, 2004.

ATTEST:

MARTIN COUNTY BOARD
OF COUNTY COMMISSIONERS

Marsha Ewing, Clerk

Susan L. Valliere, Chairman

APPROVED AS TO FORM AND CORRECTNESS

Stephen Fry
County Attorney

BCC MEETING DATE: March 7, 2006
AGENDA ITEM: 7A

MARTIN COUNTY, FLORIDA
SUPPLEMENTAL MEMORANDUM

TO: Honorable Members of the Board of County Commissioners **DATE:** February 28, 2006

VIA: Duncan Ballantyne
County Administrator

FROM: Robert F. Denison
Parks & Recreation Director

REF: 7A
SUBJECT: PRESENTATION OF THE PRELIMINARY CONCEPTUAL PLANS FOR JENSEN BEACH BOAT RAMP FKA CARP PARCEL

Since the preparation of the Agenda Item, Staff has received a letter from the US Sailing Center with additional requests (attached). A summary of the Sailing Center requests is a follows.

Request

Extend both the north and south finger piers for boat staging purposes.

Response

Staff has extended the north and south piers. As shown on the plans, the northern pier will extend 112' water ward of Mean High Water and the southern pier will extend 120' water ward of Mean High Water. Our typical boat ramps have piers that extend only 60' water ward of Mean High Water.

Request

Relocate the fence which separates the boat ramp users from the Sailing Center users to the west side of the detention basin located on the east side of the boat ramp parking lot.

Response

Staff agrees to locate the fence as described; however, due to concerns of the residents of the River Vista Condominiums across Indian River Drive concerning views of the river, that portion of the fence which runs generally north/south will be a "post and rail" barrier rather than a 6' shadow box fence.

Request

Provide 15–20 additional parking spaces and remove the concrete walk, which runs generally down the middle of the Sailing Center area in an east west direction.

Response

Staff intends to address this request; however, it is not possible to fully commit to this request at this time. The actual number of parking spaces and removal of the concrete walk is dependent upon the requirements of the permitting of the storm water management plans and by state, federal and local permitting agencies. The Department will continue to update the Sailing Center as information becomes available.

The intent of this Board Item is to obtain Board acceptance of the "Conceptual Plans" for the ramp site prior to moving forward with permit applications. The project will come back before the Board for Final Development Plan Approval after receipt of all state and federal permits and SPPRT approval. Details such as those referenced above will be affected by and refined during the permitting process.

Staff has met with representatives of the Sailing Center on several occasions. Staff will continue to work with the Sailing Center to address the items raised in their letter. It is our intent to have the above referenced concerns resolved prior to bringing the project back before the Board.

Reviewed by Stephen Fry, County Attorney

EXECUTIVE COMMITTEE

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Campbell Rich - Vice President
Jim St John - Secretary
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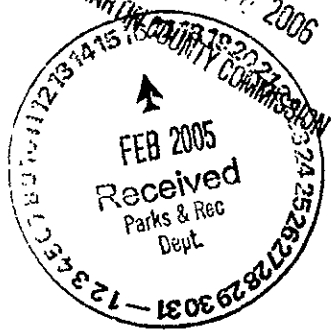
John J Taylor III
Patricia Walker
John Westbrook
Bill Whittaker

EXECUTIVE DIRECTOR

Tom Coleman

February 15, 2006



Commissioner Doug Smith
Martin County Board of Commissioners
2401 SE Monterey Road
Stuart, FL 34996

Dear Doug,

By way of an update I met with Bob Dennison, the land planning group, and Kevin Landry concerning the ramp next door. This is the first meeting that Dennison has attended, and while he was helpful and pleasant, I was surprised at the fact that Kevin Landry had not brought him up to speed on the key issues other than the need for some buoys out in the water separating the two venues. He indicated to me that the ramp approval is coming before the commissioners sometime in March to be voted on.

Doug, we need some help finalizing and reemphasizing our issues. The most important one is the planners have the long staging dock still on the south side. In many of our previous planning meetings, we all agreed that if we provided the ramp users a long northern pier as well, the staging area for ramp users would be further separated from the Sailing Center's floating dock and launching area. Also, longer docks both north and south side would encourage people to pull up at the ramp, hold on while waiting to remove their boat when the trailer becomes available, rather than circling out front in a highly confined area.

Second, since there are no remaining boundary or property lines, we had hoped that we could recapture much of the beach on our northern border so that the children have the same existing landing area that they currently have access to. In my conversations with staff that day, they indicated that they did not see a significant problem, but it does require them redrawing and replacing the shadow box at the point in which it takes that jog back to the north. The retention area that is directly by that northern jog can easily be put on our side of the fence, if required, due to the fact again there are no longer any hard property lines.

Third, we had asked that given the fact that the county is providing all new parking for us along the road that will be redesigned, a request was for them to put in additional stabilized parking given the fact that a significant amount of overflow parking on the north is now gone due to the recapture of the land for the ramp. We had requested another fifteen to twenty spaces.

US SAILING

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Item# 801583d2 Version 1.3.1.1.2.0.1.73 - 3/3/2006 9:53:43

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EXECUTIVE DIRECTOR

Tom Coleman

Lastly, we have one existing sidewalk that goes from the road all the way down to the Center. As you know, in the current ramp plan the county has, they have put a sidewalk down at the new fence line. Consequently, we asked that if the southern sidewalk can be removed so that the southern side of the park opens up and is more accessible for facilitating overflow parking, etc. Additionally, by removing that sidewalk it would provide better overflow parking for large park events held there as well. Let me know if I need to spend 15 minutes with you in person to go over these points or if this is enough information for you to work with. I am putting together an outline for Steve Frye on the different lease issues we discussed; i.e. term, southern boundaries, and will have that to him shortly. My hope is, based on our last conversation, that he will take an initial pass at drawing up our new lease.

Tom Coleman, our Executive Director, has left us. As you may know, he relocated from Tennessee where his family is and has attempted to find affordable housing. He was not able to do so and consequently left for a more affordable area. At the same time you may have heard we have given Peter Strong the job, which on several fronts is amazing when you look at Peter being one of the first kids ever through the program and is now assuming the overall responsibility for the Center. To be candid, it is tremendously rewarding to see that happen. Thanks for your continued support and attention to these matters.

Sincerely,

Jack LeFort
US Sailing Center Martin County
Board of Directors

cc: J. Vance
C. Rich

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Item # 8013832 Version 1.3.1.1.2.0.1.73 - 3/3/2006 09:33:43

Excellence in Education
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Michael J. Lannon

March 31, 2006

RECEIVED
APR 11 2006
TREASURE COAST
REGIONAL PLANNING COUNCIL

Kim DeLaney, Ph. D.
Treasure Coast Regional Planning Council
301 East Ocean Boulevard, Suite 300
Stuart, FL 34994

SUBJECT: Western Groves DRI

Dear Ms. DeLaney:

As a part of the intergovernmental coordination we have reviewed the school need for the project. Below is our most current analysis:

Background Information and Data: The Project based upon the student generation rated from the impact fee study will generate about 600 elementary, 300 middle and 400 high school students. Schools serving the area along with their current utilization, excluding the anticipated impacts from this and other permitted, but not yet occupied developed, are as follows:

2006 zone	FACILITY	2006 CSR Permanent Capacity	Estimated 2006 FTE	Permanent SS Amount over/(under) capacity	CSR Utilization %
Red	Bayshore Elementary	486		(539)	
Red	Manatee Elementary	534		(533)	
Red	Windmill Point Elementary	628		(468)	
Red	West Gate K-8 School	1,731		n/a	
Red	Oak Hammock K-8 School	1,731		n/a	
Red	St. Lucie West Middle School	1,190		41	
	Total K-8 Schools	**6,299**	**7,180**	**(1,262)**	**114%**
Red	St. Lucie West Centennial High School	1,271		(648)	
Red	Treasure Coast High School	2,059		n/a	
	Total High Schools	**3,330**	**3,161**	**(3,329)**	**95%**

The District's current 5-year work program does not provide any schools necessary to serve this proposed developer. Furthmore, the District has already exhausted all available capital funding sources, including the discretionally two mills allow by statute, certificates of participation, impact fee revenues and the recent voter approved ½ cent sales tax. In addition to funding issue cost of construction is continuing to escalated because of construction and material demands from development and hurricane recovery. Since no other funding source for the construction of the required schools to serve the project without diverting funds from other planned projects, other

revenues sources will be necessary as impact fees only provide about 2/3 the cost of the necessary capital funds. Historically School Districts have had to rely on diversion of funds (e.g. differed maintenance or renovation, etc) to provide the necessary capacity to meet growth.

Given the lack of available funds and lack of available school capacity in this attendance zone, the School District staff recommends that the developer contribute the following as a part of the DRI proposal:

1. One K-8 school site consisting of 25 acres.
2. A development agreement that assure financial contribution towards the construction cost of the school necessary to serve the DRI.

As a part of the development review process the School Board will enter into a development agreement for the school related issues. The applicant should contact me at the number below to arrange a meeting to start that process.

Please call me at (772) 429-3640 if you have any questions.

Sincerely,

Marty E. Sanders

Marty E. Sanders, P.E.
Executive Director Growth Management, Land Acquisitions & Inter-Governmental Relations

MES/mtf

cc: School Board Members
Michael Lannon, Superintendent
Dan Harrell, School Board Attorney
Patti Tobin, Core Communities

Florida Department of Transportation

JEB BUSH
GOVERNOR

PLANNING AND ENVIRONMENTAL MANAGEMENT - DISTRICT 4
3400 West Commercial Blvd., Ft. Lauderdale, FL 33309-3421
Telephone (954) 777-4601 Fax (954) 777-4671
Toll Free Number: 1-866-336-8435

DENVER J. STUTLER, JR.
SECRETARY

RECEIVED
APR 12 2006
TREASURE COAST
REGIONAL PLANNING COUNCIL

April 10, 2006

Mr. Michael J. Busha, AICP
Executive Director
Treasure Coast Regional Planning Council
301 East Ocean Boulevard, Suite 300
Stuart, FL 34994

Dear Mr. Busha:

SUBJECT: **Western Grove Development of Regional Impact (DRI)**
City of Port St. Lucie, St. Lucie County
Application for Development Approval (ADA) – Development Order (DO) Conditions

The Department has reviewed the draft DO conditions for the Western Grove DRI forwarded by the Regional Planning Council. The draft DO conditions for the subject DRI are derived from the conclusion of the "Western Annexation Area Traffic Study". The study was headed by the Regional Planning Council and coordinated among many public agencies and private developers. The public agencies include the Treasure Coast Regional Planning Council, City of Port St. Lucie, St. Lucie County, Martin County, and the Florida Department of Transportation. The private parties include the developers of Western Grove, Southern Grove, Riverland/Kennedy, and Wilson Groves.

The Western Grove DRI, a 1,593-acre property, is located in the western portion of the City of Port St. Lucie, bounded by the Tradition DRI to the east and Rangeline Road to the west. The DRI is proposed in three phases with a buildout year of 2020, as depicted in the table below:

Land-Use	Phase 1 (2006-2010)	Phase 2 (2011-2015)	Phase 3 (2015-2020)	Total (2020)
Single Family (du)	844	1,140	1,266	3,249
Multi-Family (du)	-	392	420	812
Retail (sf)	-	125,453	240,451	365,904
Office (sf)	-	69,696	181,210	250,906
Institutional (sf)	54,450	-	-	54,450
School (students)	2,220	-	-	2,220
Park (acres)	20	-	-	20

The Department requests that the following recommendations be incorporated in the Development Order:

Right-of-Way Considerations

1. Prior to the first building permit, the applicant shall donate sufficient right-of-way abutting Rangeline Road to 100' from the centerline of Range Line Road to be preserved for the implementation of the future regional corridor denoted in the area Long Range Transportation Plan (Citrus Highway/Research Corridor).

2. Any residential uses proposed within 400 feet of the centerline of Range Line Road shall include effective noise attenuation, as defined in the National Environmental Policy Act. For the purposes of evaluating effective noise attenuation, the applicant shall conduct a noise analysis at the site plan approval stage, based on projected noise levels at the buildout of the project.

Modal and Design Considerations

3. Prior to the issuance of any building permits, Design Guidelines associated with the DRI shall be approved by the City, adopted by reference in the City's Comprehensive Plan and incorporated into the City's Land Development Code (ULDC) or zoning category for the DRI. The Design Guidelines shall address, at a minimum, the following:

    a. The Design Guidelines shall describe the optimal characteristics of a fixed route community based (shuttle/trolly) circulator system, which should consider:
        - A requirement that higher density and commercial structures be within a ¼ mile of a bus stop with unrestrictive pedestrian access.
        - A requirement that the circulator system service movements within the site, and interconnect with any fixed-route service and on-site intermodal center.
        - The location (spacing), timing, size, and appearance of transit stops and stations as well as details facilitating integration of transit stops with adjacent development.

    There are several different types of bus stops that shall be addressed, including neighborhood, transfer and hub:

        - Neighborhood stops should be at locations such as schools or large employers or stops having more than 10 average daily boardings. These stops include a shelter, bench, sign with schedule, and trash receptacle.
        - Transfer stops should be at locations with over 25 average daily boardings or locations where more than one transit route interface. These stops include a shelter, bench, a sign with system information, trash receptacles, lighting, and bicycle rack.
        - Hub stops should be at locations with over 50 average daily boardings a day and multiple transit routes. These stops include a shelter, bench, sign with system information, trash receptacles, lighting, bicycle rack and newspaper vending.

    b. The Design Guidelines shall address the optimal characteristics of an Intermodal Center and/or a Transit Transfer Station. Such facilities should include:
        - A Park and Ride lot (to encourage a "park once" approach)
        - Accommodation for fixed route buses & community shuttles (intermodal connections)
        - Public restrooms (convenience)
        - Shelter (convenience)
        - System schedule information (convenience)
        - Trash receptacles (convenience)
        - Convenience vending (convenience)
        - Lighting (safety)
        - Bicycle facilities (intermodal connections)
        - Seating (convenience)

    c. The Design Guidelines shall consider various parking strategies to optimize transit use and to encourage a "park once" approach. At a minimum the following strategies should be considered:
        - Maximize access to community shuttle/transit stops
        - Maximize the use of pedestrian facilities and connectivity to the pathway system
        - Limit individual parking lots for individual facilities
        - Promote aggregate parking for multiple uses
        - Promote shared parking (e.g. daytime vs. nighttime activities)
        - Provide preferential parking for van pool, car pool, and alternative fuel vehicles

4. Prior to receiving the first certificate of occupancy for commercial (office or retail) development, an Employee Transportation Coordinator (ETC) shall be established governing, at a minimum, the area bounded by this DRI. The ETC shall promote and coordinate the implementation of Transportation Demand Management (TDM) strategies in this area. At a minimum this position will:
    - Implement any TDM Ordinances adopted by the City
    - Function as a resource for other ETCs at companies and/or buildings with significant concentrations of employees within the DRI
    - Utilize data and analysis to determine the appropriate timing for the creation of a Transportation Management Initiative (TMI) or Association (TMA), if appropriate
    - Provide an annual report to the City, the TCRPC, and the FDOT of TDM/commute trip reduction activities
    - Work with other ETCs in the Western Annexation Area to develop an annual plan to maximize internal trips within the Western Annexation Area
    - Coordinate with FDOT on TDM activities

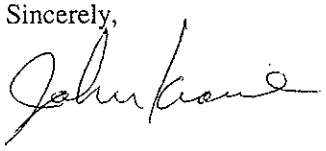
5. Prior to receiving the first building permit associated with the Neighborhood Village District, the design, and permitting of an Intermodal Center/Transit Transfer Station shall commence. FDOT District 4 shall have the opportunity to review and comment on the site plan, and construction documents for the Intermodal Center.

6. Prior to receiving the first Certificate of Occupancy associated with the Neighborhood Village District, Construction of the Intermodal Center/Transit Transfer Station shall commence.

7. The Annual Report shall include a status update on:
    - The application of on-site parking strategies
    - TDM/commute trip reduction activities

Please feel free to contact us at (954) 777-4601 should you have any questions.

Sincerely,



for Gustavo Schmidt, P.E.
District Planning and Environmental Engineer

GS:jk/lh/cw

cc: D. Ray Eubanks – Community Program Administrator, FDCA
Bob Romig – Director, Office of Policy Planning, FDOT
Gerry O'Reilly – Director of Transportation Development, FDOT
John Krane – Transportation Planning Engineer, FDOT
Larry Hymowitz – Intergovernmental Coordinator, FDOT
Chon Wong – Senior Transportation Specialist, FDOT

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APPENDIX C

Goals, Strategies and Policies

This appendix contains a summary of the goals, strategies and policies in the SRPP that are most relevant to the project. Please refer to the SRPP for a more complete discussion of regional issues and additional goals, strategies, and policies.

Future of the Region

MASTER PLAN

Goal 4.1: Future development should be part of existing or proposed cities, towns, or villages.

Goal 6.1: Create new neighborhoods and communities.

Goal 10.1: Neighborhoods and communities which are served by a variety of transportation modes.

Goal 15.1: Preferred forms of development which result in downtown redevelopment and infill, the containment of suburban sprawl and the creation of new cities, towns, and villages.

Goal 16.1: The formation of new towns, cities and villages.

Strategy 6.1.1: Encourage the formation of sustainable neighborhoods and communities.

Strategy 7.1.3: Promote improved community planning and urban design.

Strategy 7.2.1: Promote patterns of development which provide better opportunities for the transportation disadvantaged.

Strategy 7.3.1: Reduce vulnerability to natural and man-made disaster events through better transportation, land use and community planning.

Strategy 12.1.1: Encourage patterns of development and programs which improve the independence and self-sufficiency of children.

Strategy 13.1.1: Encourage patterns of development and programs which minimize dependency on the automobile, encourage and accommodate public transit, and reduce vehicle miles traveled and the amount of vehicle emission discharged into the atmosphere.

Strategy 16.1.1: Encourage and facilitate preferred forms of development.

Policy 6.1.1.1: New neighborhoods and districts should contain a balanced, well-planned, compatible mix of land uses appropriately located so that State, local and regional goals are achieved.

Policy 6.1.1.2: New neighborhoods and districts should have compact designs, with a mix of building types.

Policy 6.1.2.3: Require that an urban design study be prepared to evaluate development proposals in the countryside.

Policy 7.1.1.4: Urban design and architectural studies should be performed when evaluating residential and commercial projects. Such studies should analyze building typology and compatibility, land use mix and the overall impact of the project on the surrounding neighborhood or district.

Policy 7.1.3.1: Encourage patterns and forms of development and redevelopment that maximize public transportation alternatives, minimize the use of the Region's collector and arterial roadway network, and reduce the total amount of daily vehicle miles traveled.

Policy 7.2.1.1: Encourage patterns and forms of development and redevelopment and street design that will improve mobility opportunities for transit dependent groups especially the poor, handicapped and young.

Policy 7.3.1.2: Plan and design new development and redevelopment to increase the ability of the internal and external roadway network to accommodate emergency traffic, enhance post disaster recovery efforts, and provide central locations for public shelters and emergency relief centers.

Policy 8.1.1.3: Encourage patterns of development which minimize the public cost for providing services, maximize the use of existing service systems and facilities and take into full consideration environmental/physical limitations.

Policy 9.1.1.1: Encourage patterns of development and programs which reduce dependency on the automobile, encourage and accommodate public transit, and reduce the overall use of fossil fuels.

Policy 10.1.1.1: Plan and design development to effectively accommodate alternative modes of transportation.

Policy 12.1.1.1: Consider the special mobility needs of children in all development proposals.

Policy 12.1.1.2: Encourage the location and provision of schools, parks, recreational and other uses (e.g., retail, civic uses, etc.) within biking or walking distance.

Policy 12.1.1.4: Provide sites for civic uses such as schools, parks and libraries within neighborhoods.

Policy 15.1.3.13: Make non-preferred forms of development occurring in undeveloped areas responsible for the full and true infrastructure costs to support the development through buildout.

Policy 16.1.1.1: Local governments should identify appropriate locations for preferred forms of development.

Policy 16.1.1.2: Future land use plans should be prepared for locations considered appropriate for new towns, cities, villages, neighborhoods and districts.

Transportation

RIGHTS OF WAY

Policy 7.1.1.1: Reserve and protect sufficient road right-of-way on the regional roadway network to provide for an efficient multi-modal transportation system.

EXTERNAL ROADWAY IMPROVEMENTS

Goal 8.1: Public facilities which provide a high quality of life.

Strategy 8.1.1: Provide levels of public services necessary to achieve a high quality of life, cost effective.

Policy 8.1.1.1: All development should take place concurrent with or after the provision of necessary infrastructure and services.

INTERSECTION IMPROVEMENTS

Goal 8.1: Public facilities which provide a high quality of life.

Strategy 8.1.1: Provide levels of public services necessary to achieve a high quality of life, cost effective.

Policy 8.1.1.1: All development should take place concurrent with or after the provision of necessary infrastructure and services.

ACCESS DRIVEWAYS

Goal 7.1: A balanced and integrated transportation system.

Strategy 7.1.3: Promote improved community planning and urban design.

Policy 7.1.3.1: Encourage patterns and forms of development and redevelopment that maximize public transportation alternatives, minimize the use of the Region's collector and arterial roadway network, and reduce the total amount of daily vehicle miles traveled.

ANNUAL REPORTING AND MONITORING

Goal 8.1: Public facilities which provide a high quality of life.

Strategy 8.1.1: Provide levels of public services necessary to achieve a high quality of life, cost effective.

Policy 8.1.1.1: All development should take place concurrent with or after the provision of necessary infrastructure and services.

NEIGHBORHOOD IMPACTS

Policy 7.1.2.1: Assist public and private agencies and entities in implementing TDM strategies that reduce congestion, energy use and the number of single-occupant auto trips.

Policy 7.1.2.2: Give consideration during the planning of transportation system expansion to providing incentives for use of high-occupancy vehicles and alternative modes of transportation (e.g., car pools, van pools, buses, bicycles, etc.).

Policy 7.1.2.3: Increase land use densities and the mix of land uses around commuter rail stations and at strategic locations along designated public transportation corridors where consistent with other local and regional goals and strategies.

Policy 7.1.2.4: Develop and redevelop downtowns and strategic locations along designated public transportation corridors. In order to improve the feasibility of public transportation, residential densities should be no less than 8 units per acre.

Policy 7.1.2.5: Develop a regional roadway system of predictably spaced and interconnected east-west, north-south streets. Ideally, streets should be spaced every one-quarter to one-half mile to offer multiple route choices, disperse traffic, and discourage local travel on interstates and arterials.

Policy 7.1.3.2: Suggests planning development to provide interconnections for pedestrians and public transportation within and between residential areas, schools, employment and retail centers, recreational areas and other public facilities.

Policy 7.1.3.3: An urban design study should be prepared prior to the development and redevelopment of building sites or changes to the street network.

Policy 7.1.3.5: Orient buildings toward streets to create better pedestrian environments.

Policy 7.1.3.6: Locate buildings so they are as convenient and accessible to public transportation facilities and sidewalks as they are to auto parking.

Policy 7.1.3.7: Locate parking to the sides and backs of buildings so that pedestrian access and access from public transportation does not require walking through large parking lots to reach building entrances.

Policy 7.1.3.9: Design and locate parking lots and garages to enhance pedestrianism and the character and attractiveness of the area, and to encourage use of alternate modes of transportation.

Strategy 7.1.4: Encourage public transportation alternatives.

Policy 7.1.4.1: Review and where necessary amend public policy governing parking requirements to support "transit first" policies and to promote public transit as a viable alternative in high density areas, designated public transportation corridors, and central business districts.

Policy 7.1.4.2: Have new development or redevelopment provide transit ridership amenities (shelters, route information, and schedules) and appropriate and effective incentives whenever transit use is assumed or required to maintain acceptable roadway level of service.

Policy 7.1.4.4: Support requests for lower levels of service and establishment of transportation concurrency exception areas in higher density areas, downtowns, and along designated public transportation corridors where it can be demonstrated that levels of mobility and convenience will be maintained or increased through other modes of transportation or land use corrections.

Policy 7.1.4.5: Support development and implementation of corridor management plans which are consistent with the SRPP.

Human Resource Issues

HOUSING

Goal 2.1: An adequate supply of safe and affordable housing to meet the needs of the very low, low, and moderate-income residents of the Region.

Goal 2.2: A range of housing types and affordabilities in proximity to employment and services.

Strategy 2.1.1: Create a planning/regulatory climate which is conducive to the production of affordable housing.

Strategy 2.1.2: Create and expand public/private partnerships among all entities involved in the provision of affordable housing including financial institutions, developers, contractors, government agencies, social service and other non-profit organizations, churches and realtors.

Strategy 2.2.1: Ensure that all areas have a reasonable mix of housing, employment opportunities, and services.

Policy 2.1.1.1: Local governments should reduce unnecessary regulatory barriers which make it more difficult to build affordable housing. Examples of such barriers are large lot sizes, minimum unit size and floor space, and setbacks.

Policy 2.1.1.2: Local governments should allow zero lot line development, cluster development, accessory apartments, high-density zoning, mixed-use buildings, modified site improvement standards, alternate construction techniques, etc.

Policy 2.1.1.4: Local governments should consider the enactment of incentives such as density bonuses, linkage programs, and inclusionary housing policies.

Policy 2.1.1.5: Local governments should designate adequate sites where affordable housing can be developed.

Policy 2.1.2.1: Work closely with non-profit organizations who are interested in sponsoring housing projects which serve very low, low and moderate-income residents.

Environment and Natural Resources

UPLAND PRESERVATION

Strategy 1.1.1: Preserve and manage complete natural systems as a network of connected nature preserves.

Strategy 6.1.1: Preserve and manage natural systems as a network of connected nature preserves and promote the establishment of greenway systems in the region.

Policy 6.7.1.2: Development plans should be designed to maximize the amount of protected habitat. Protected natural communities and ecosystems should be preserved in viable condition with intact canopy, under-story, and ground cover. Where possible, preserve areas should be designed to interconnect with other natural areas that have been set aside for preservation. A restoration and management plan for the protected areas should be developed.

As a minimum baseline measure for consistency with the SRPP, Council strives to achieve protection of 25 percent of upland natural communities in the evaluation of development plans. Council supports the maximum protection of natural communities,

and recommends that more than 25 percent of the upland habitat be preserved where appropriate.

Policy 6.7.1.9: Preserve areas should be designed to protect integrated systems of uplands and wetlands.

Strategy 6.8.1: Preserve areas should be designed and established to protect endangered and potentially endangered species.

Policy 7.1.2.6: Redirect development patterns away from interstates and major arterials to town and neighborhood centers along collector and minor arterials.

Policy 8.1.1.3: Encourage patterns of development which minimize the public cost for providing services, maximize the use of existing service systems and facilities and take into full consideration environmental/physical limitations.

LISTED SPECIES

Strategy 1.1.1: Preserve and manage complete natural systems as a network of connected nature preserves.

Strategy 6.8.1: Preserve areas should be designed and established to protect endangered and potentially endangered species.

Policy 6.8.1.2: All endangered and potentially endangered plant and animal populations should be protected and all habitat of significant value to existing populations of endangered and threatened species should be preserved and protected.

WETLANDS

Policy 6.6.1.1: No activity should be allowed that results in the alteration, degradation, or destruction of wetlands and deepwater habitats, except when:

1. Such an activity is necessary to prevent or eliminate a public hazard;

2. Such an activity would provide direct public benefits which would exceed those lost to the public as a result of habitat alteration, degradation, or destruction;

3. Such an activity is proposed for habitats in which the functions and values currently provided are significantly less than those typically associated with such habitats and cannot be reasonably restored;

4. Such an activity is water dependent or, due to the unique geometry of the site, minimal impact is the unavoidable consequence of development for uses, which are appropriate given site characteristics.

Policy 6.6.1.2: Whenever any wetland or deepwater habitat is degraded or destroyed, mitigation should be provided through the creation of new wetland and deepwater habitat, through the restoration of degraded habitat, or through the enhancement of functions and values provided by existing habitats.

Policy 6.6.1.3: A buffer zone of native upland edge vegetation should be provided and maintained around wetland and deepwater habitats, which are constructed or preserved on new development sites. The buffer zone may consist of preserved or planted vegetation but should include canopy, under-story, and ground cover of native species only. The edge habitat should begin at the upland limit of any wetland or deepwater habitat.

EXOTIC SPECIES

Policy 6.7.1.4: All nuisance and invasive exotic vegetation listed by the Florida Exotic Pest Plant Council should be removed and where appropriate replaced with plant species adapted to existing soil and climatic conditions. Removal should be in such a manner that avoids seed dispersal by any such species. State and federal agencies and local governments should coordinate and assist in the removal and replacement of nuisance exotic pest species.

STORMWATER MANAGEMENT

The following strategy and policies in the SRPP apply to the project:

Strategy 1.1.2: Promote compatibility of urban areas, regional facilities, natural preserves and other open spaces.

Policy 6.3.1.1: All new, reconstructed or substantially expanded storm and surface water management systems should be designed and constructed to meet state water quality standards. Where feasible, retention is the preferred method for treatment of stormwater, recharging the aquifer, and protecting the region's estuaries.

Policy 6.3.1.2: A vegetated and functional littoral zone should be established as part of new surface water management systems where possible. Prior to construction of the surface water management system for any phase of a project, the developer should prepare a design and management plan for the wetland/littoral zone that will be established as part of these systems. The littoral zone established should consist entirely of native vegetation and should be maintained permanently as part of the water management system.

Policy 6.3.1.6: Design drainage systems that maintain the natural discharge pattern of stormwater from a site.

WATER SUPPLY

Goal 8.1: Public facilities which provide high quality of life.

Strategy 8.1.1: Provide levels of public services necessary to achieve a high quality of life, cost effectively.

Policy 8.1.1.1: All development should take place concurrent with or after the provision of the necessary infrastructure and services.

Goal 6.2: A regional water supply managed to provide for all recognized needs on a sustainable basis.

Strategy 6.2.1: Develop and implement water conservation programs.

Policy 6.2.1.1: Use reclaimed wastewater for irrigation and other suitable purposes when such use is determined to be feasible.

Policy 6.2.1.3: Protect natural communities on development sites as a method to reduce the need for irrigation.

Policy 6.2.1.4: In order to protect and conserve the water resources of the Region and southern Florida to ensure the availability for future generations:

1. All landscaping material used on the primary dune system should be composed of native plants adapted to soil and climatic conditions occurring on-site. In all other locations the majority of landscaped areas should be composed of native or drought tolerant plants adapted to soil and climatic conditions occurring on-site.

2. The lowest acceptable quality water should be used to meet nonpotable water demands.

3. Potable water rates should be structured to encourage conservation.

4. All new and expanding wastewater treatment facilities should make reclaimed wastewater available for use in irrigation. Where possible, all new development should rely on wastewater reuse for irrigation.

5. Use of water saving device, irrigation systems, and plumbing fixtures should be required to the maximum extent justified. Where appropriate, existing systems should be retrofitted to make use of the most cost efficient water saving devices.

6. Leak detection programs should be developed and implemented.

WASTEWATER MANAGEMENT

Goal 8.1: Public facilities which provide high quality of life.

Strategy 8.1.1: Provide levels of public services necessary to achieve a high quality of life, cost effectively.

Policy 8.1.1.1: All development should take place concurrent with or after the provision of the necessary infrastructure and services.

HURRICANE PREPAREDNESS

Goal 5.2: Reduced vulnerability to disasters.

Strategy 5.2.1: Utilize land use, transportation, and community planning processes to address vulnerability issues.

Policy 5.2.1.1: Plan and design new development and redevelopment to increase the ability of the internal and external roadway network to accommodate emergency traffic, enhance post disaster recovery efforts, and provide natural central locations for public shelters and emergency relief centers.

Regional Goal 5.3: Adequate and safe shelter within the Region for residents in coastal high hazard and floodplain areas.

Strategy 5.3.1: Provide shelter space for residents of areas susceptible to flooding from the effects of hurricanes and other storms.

Policy 5.3.1.10: In accordance with State, local, and regional hurricane evacuation studies and emergency evacuation plans, require new developments to fully mitigate impacts on existing public shelter capacities by providing additional shelter space which can safely accommodate the development's residents who are likely to seek public shelter locally during a hurricane event.

SOLID WASTE AND HAZARDOUS MATERIALS

Goal 6.3: Protection of water quality and quantity.

Goal 8.1: Public facilities which provide a high quality of life.

Policy 8.1.1.1: All development should take place concurrent with or after the previsions of necessary infrastructure and services.

AIR QUALITY

Goal 13.1: Maintenance of acceptable air quality levels

Strategy 13.1.1: Encourage patterns of development and programs which minimize dependency on the automobile, encourage and accommodate public transit, and reduce

vehicle miles traveled and the amount of vehicle emission discharged into the atmosphere.

Policy 13.1.1.1: Implement practices, which minimize airborne dust and particulate emission.

Strategy 7.1.3: Promote improved community planning and urban design.

Policy 7.1.3.1: Encourage patterns and forms of development and redevelopment that maximize public transportation alternatives, minimize the use of the Region's collector and arterial roadway network, and reduce the total amount of daily vehicle miles traveled.

Policy 7.1.3.4: Reduce VMT per capita by private automobile within the Region through a combination of the following:

(1) provision of public transportation alternatives;

(2) provision of housing opportunities in proximity to employment opportunities;

(3) provision of essential services and recreational opportunities in proximity to demand;

(4) concentration of commercial and other essential services;

(5) provision of a street network designed for the pedestrian the disabled, the automobile and transit;

(6) provision of parking in ways that will encourage pedestrianism and public transportation alternatives;

(7) provision of incentives encouraging infill and downtown redevelopment;

(8) support of public and private sector efforts to carry out TDM strategies that will reduce congestion; and

(9) expansion of commuter rail and intermodal connections.

POLICE AND FIRE PROTECTION

Goal 8.1: Public facilities which provide a high quality of life.

Strategy 8.1.1: Provide levels of public services necessary to achieve a high quality of life, cost effectively.

Policy 8.1.1.1: All development should take place concurrent with or after the provision of necessary infrastructure and services.

HISTORIC AND ARCHAEOLOGICAL SITES

Strategy 15.1.1: Identify and protect archaeological and historical resources in the Region.

ENERGY

Goal 9.1: Decreased vulnerability of the Region to fuel price increases and supply interruptions.

Strategy 9.1.1: Reduce the Region's reliance on fossil fuels.

Policy 9.1.1.1: Encourage patterns of development and programs, which reduce the dependency on the automobile, encourage and accommodate public transit, and reduce the overall use of fossil fuels.

Policy 9.1.1.3: Encourage energy efficient buildings. Strategies should include: 1) proper siting according to solar orientation; b) design of passive architectural systems; c) site designs that provide shade to buildings; d) use of sustainable building materials; and e) use of solar mechanical systems.

ECONOMIC AND FISCAL IMPACTS

Policy 8.1.1.3: Encourage patterns of development, which minimize the public cost for providing services, maximize the use of existing service systems and facilities and take into full consideration environmental/physical limitations.

Policy 8.1.2.2: Give high priority to restoring or establishing new public facilities only in areas that have been designated as locations that will be built following preferred development form principles.

Strategy 3.4.1: Promote patterns of development, which allow public services and facilities to be provided more cost effectively.

Policy 3.4.1.3: Non-preferred forms of development, which occur in undeveloped areas should be responsible for and bear the full and true infrastructure costs to support the development through build out.

Policy 3.4.1.4: Develop a tiered system of impact fees which recognizes cost differences of providing public services to the development based on the size, type, form, location and service demands of the development proposed.

APPENDIX D

Energy Saving Methods

As energy consumption continues to increase in the Region, more consideration should be given to alternative and locally derived energy sources. More consideration should be given to site design and energy saving devices and features that reduce energy consumption. The following energy saving methods are easily incorporated into most site plans and building designs:

1. Use of computerized load management where cost-effective and economically feasible.

2. Preserve native vegetation and topography in order to retain their natural energy conserving benefits.

3. Promote carpooling and van pooling through incentives such as priority parking areas.

4. Encourage incentives to non-automotive travel such as provision of sheltered bus stops, bicycle locking facilities, shaded pathways, and protected crossings.

5. Participate in a systematic approach to the development of walkway and bicycle path networks with the local government that will result in safe, convenient links between home, work, shopping, recreation, and schools.

6. Use of energy-efficient features in window design (e.g. tinting and exterior shading).

7. Use operable window and ceiling fans.

8. Install energy-efficient appliances and equipment.

9. Reduce coverage by asphalt, concrete, rock, and similar substances in streets, parking lots, and other areas to reduce local air temperatures and reflect light and heat.

10. Install energy-efficient lighting for streets, parking areas, recreation areas, and other interior and exterior public areas.

11. Use water closets with a minimum flush of 3.5 gallons and showerheads and faucets with a maximum flow rate of 3.0 gallons per minute (at 60 pounds of pressure per square inch) as specified in the Water Conservation Act, Section 553.14, Florida Statutes.

12. Select native plants, trees, and other vegetation and landscape design features that reduce requirements for water, fertilizer, maintenance, and other needs.

13. Plant native shade trees to provide reasonable shade for all recreation areas, streets, and parking areas.

14. Place trees to provide needed shade in the warmer months while not overly reducing the benefits of sunlight in the cooler months (shade in the summer should receive primary consideration).

15. Orient structures, as possible, to reduce solar heat gain by walls and windows and to utilize the natural cooling effects of the wind.

16. Provide structural shading (e.g. trellises, awnings, and roof overhangs) wherever practical when natural shading cannot be used effectively.

17. Use solar hot water heating systems or photovoltaic energy systems.

APPENDIX E

Wood Stork Habitat Guidelines

HABITAT MANAGEMENT GUIDELINES FOR THE WOOD STORK IN THE SOUTHEAST REGION

HABITAT MANAGEMENT GUIDELINES FOR THE WOOD STORK IN THE SOUTHEAST REGION

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HABITAT MANAGEMENT GUIDELINES FOR THE WOOD STORK IN THE SOUTHEAST REGION

Introduction

A number of Federal and state laws and/or regulations prohibit, cumulatively, such acts as harrassing, disturbing, harming, molesting, pursuing, etc., wood storks, or destroying their nests (see Section VII). Although advisory in nature, these guidelines represent a biological interpretation of what would constitute violations of one or more of such prohibited acts. Their purpose is to mainain and/or improve the environmental conditions that are required for the survival and well-being of wood storks in the southeastern United States, and are designed essentially for application in wood stork/human activity conflicts (principally land development and human intrusion into stork use sites). The emphasis is to avoid or minimize detrimental human-related impacts on wood storks. These guidelines were prepared in consultations with state wildlife agencies and wood stork experts in the four southeastern states where the wood stork is listed as Endangered (Alabama, Florida, Georgia, South Carolina).

General

The wood stork is a gregarious species, which nests in colonies (rookeries), and roosts and feeds in flocks, often in association with other species of long-legged water birds. Storks that nest in the southeastern United States appear to represent a distinct population, separate from the nearest breeding population in Mexico. Storks in the southeastern U.S. population have recently (since 1980) nested in colonies scattered throughout Florida, and at several central-southern Georgia and coastal South Carolina sites. Banded and color-marked storks from central and southern Florida colonies have dispersed during non-breeding seasons as far north as southern Georgia, and the coastal counties in South Carolina and southeastern North Carolina, and as far west as central Alabama and northeastern Mississippi. Storks from a colony in south-central Georgia have wintered between southern Georgia and southern Florida. This U.S. nesting population of wood storks was listed as endangered by the U.S. Fish and Wildlife Service on February 28, 1984 (*Federal Register* 49(4):7332-7335).

Wood storks use freshwater and estuarine wetlands as feeding, nesting, and roosting sites. Although storks are not habitat specialists, their needs are exacting enough, and available habitat is limited enough, so that nesting success and the size of regional populations are closely regulated by year-to-year differences in the quality and quantity of suitable habitat. Storks are especially sensitive to environmental conditions at feeding sites; thus, birds may fly relatively long distances either daily or between regions annually, seeking adequate food resources.

All available evidence suggests that regional declines in wood stork numbers have been largely due to the loss or degradation of essential wetland habitat. An understanding of the qualities of good stork habitat should help to focus protection efforts on those sites

that are seasonally important to regional populations of wood storks. Characteristics of feeding, nesting, and roosting habitat, and management guidelines for each, are presented here by habitat type.

I. **Feeding habitat.**

A major reason for the wood stork decline has been the loss and degredation of feeding habitat. Storks are especially sensitive to any manipulation of a wetland site that results in either reduced amounts or changes in the timing of food availability.

Storks feed primarily (often almost exclusively) on small fish between 1 and 8 inches in length. Successful foraging sites are those where the water is between 2 and 15 inches deep. Good feeding conditions usually occur where water is relatively calm and uncluttered by dense thickets of aquatic vegetation. Often a dropping water level is necessary to concentrate fish at suitable densities. Conversely, a rise in water, especially when it occurs abruptly, disperses fish and reduces the value of a site as feeding habitat.

The types of wetland sites that provide good feeding conditions for storks include: drying marshes or stock ponds, shallow roadside or agricultural ditches, narrow tidal creeks or shallow tidal pools, and depressions in cypress heads or swamp sloughs. In fact, almost any shallow wetland depression where fish tend to become concentrated, either through local reproduction or the consequences of area drying, may be used by storks.

Nesting wood storks do most of their feeding in wetlands between 5 and 40 miles from the colony, and occasionally at distances as great as 75 miles. Within this colony foraging range and for the 110-150 day life of the colony, and depending on the size of the colony and the nature of the surrounding wetlands, anywhere from 50 to 200 different feeding sites may be used during the breeding season.

Non-breeding storks are free to travel much greater distances and remain in a region only for as long as sufficient food is available. Whether used by breeders or non-breeders, any single feeding site may at one time have small or large numbers of storks (1 to 100+), and be used for one to many days, depending on the quality and quantity of available food. Obviously, feeding sites used by relatively large numbers of storks, and/or frequently used areas, potentially are the more important sites necessary for the maintenance of a regional population of birds.

Differences between years in the seasonal distribution and amount of rainfall usually mean that storks will differ between years in where and when they feed. Successful nesting colonies are those that have a large number of feeding site options, including sites that may be suitable only in years of rainfall extremes. To maintain the wide range of feeding site options requires that many different wetlands, with both relatively short and long annual hydroperiods, be preserved. For example, protecting only the larger wetlands, or those with longer annual hydroperiods, will result in the eventual loss of smaller, seemingly less important wetlands. However, these small scale wetlands are crucial as the only available feeding sites during the wetter periods when the larger habitats are too deeply flooded to be used by storks.

II. Nesting habitat.

Wood storks nest in colonies, and will return to the same colony site for many years so long as that site and surrounding feeding habitat continue to supply the needs of the birds. Storks require between 110 and 150 days for the annual nesting cycle, from the period of courtship until the nestlings become independent. Nesting activity may begin as early as December or as late as March in southern Florida colonies, and between late February and April in colonies located between central Florida and South Carolina. Thus, full term colonies may be active until June-July in south Florida, and as late as July-August at more northern sites. Colony sites may also be used for roosting by storks during other times of the year.

Almost all recent nesting colonies in the southeastern U.S. have been located either in woody vegetation over standing water, or on islands surrounded by broad expanses of open water. The most dominant vegetation in swamp colonies has been cypress, although storks also nest in swamp hardwoods and willows. Nests in island colonies may be in more diverse vegetation, including mangroves (coastal), exotic species such as Australian pine (*Casuarina*) and Brazilian Pepper (*Schinus*), or in low thickets of cactus (*Opuntia*). Nests are usually located 15-75 feet above ground, but may be much lower, especially on island sites when vegetation is low.

Since at least the early 1970's, many colonies in the southeastern U.S. have been located in swamps where water has been impounded due to the construction of levees or roadways. Storks have also nested in dead and dying trees in flooded phosphate surface mines, or in low, woody vegetation on mounded, dredge islands. The use of these altered wetlands or completely "artificial" sites suggests that in some regions or years storks are unable to locate natural nesting habitat that is adequately flooded during the normal breeding season. The readiness with which storks will utilize water impoundments for nesting also suggests that colony sites could be intentionally created and maintained through long-term site management plans. Almost all impoundment sites used by storks become suitable for nesting only fortuitously, and therefore, these sites often do not remain available to storks for many years.

In addition to the irreversible impacts of drainage and destruction of nesting habitat, the greatest threats to colony sites are from human disturbance and predation. Nesting storks show some variation in the levels of human activity they will tolerate near a colony. In general, nesting storks are more tolerant of low levels of human activity near a colony when nests are high in trees than when they are low, and when nests contain partially or completely feathered young than during the period between nest construction and the early nestling period (adults still brooding). When adult storks are forced to leave their nests, eggs or downy young may die quickly (<20 minutes) when exposed to direct sun or rain.

Colonies located in flooded environments must remain flooded if they are to be successful. Often water is between 3 and 5 feet deep in successful colonies during the nesting season. Storks rarely form colonies, even in traditional nesting sites, when they are dry, and may abandon nests if sites become dry during the nesting period. Flooding in colonies may be most important as a defense against mammalian predators. Studies of stork colonies in Georgia and

Florida have shown high rates of raccoon predation when sites dried during the nesting period. A reasonably high water level in an active colony is also a deterrent against both human and domestic animal intrusions.

Although nesting wood storks usually do most feeding away from the colony site (>5 miles), considerable stork activity does occur close to the colony during two periods in the nesting cycle. Adult storks collect almost all nesting material in and near the colony, usually within 2500 feet. Newly fledged storks, near the end of the nesting cycle, spend from 1-4 weeks during the fledging process flying locally in the colony area, and perched in nearby trees or marshy spots on the ground. These birds return daily to their nests to be fed. It is essential that these fledging birds have little or no disturbance as far our as one-half mile within at least one or two quadrants from the colony. Both the adults, while collecting nesting material, and the inexperienced fledglings, do much low, flapping flight within this radius of the colony. At these times, storks potentially are much more likely to strike nearby towers or utility lines.

Colony sites are not necessarily used annually. Regional populations of storks shift nesting locations between years, in response to year-to-year differences in food resources. Thus, regional populations require a range of options for nesting sites, in order to successfully respond to food availability. Protection of colony sites should continue, therefore, for sites that are not used in a given year.

III. **Roosting habitat.**

Although wood storks tend to roost at sites that are similar to those used for nesting, they also use a wider range of site types for roosting than for nesting. Non-breeding storks, for example, may frequently change roosting sites in response to changing feeding locations, and in the process, are inclined to accept a broad range of relatively temporary roosting sites. Included in the list of frequently used roosting locations are cypress "heads" or swamps (not necessarily flooded if trees are tall), mangrove islands, expansive willow thickets or small, isolated willow "islands" in broad marshes, and on the ground either on levees or in open marshes.

Daily activity patterns at a roost vary depending on the status of the storks using the site. Non-breeding adults or immature birds may remain in roosts during major portions of some days. When storks are feeding close to a roost, they may remain on the feeding grounds until almost dark before making the short flight. Nesting storks traveling long distances (>40 miles) to feeding sites may roost at or near the latter, and return to the colony the next morning. Storks leaving roosts, especially when going long distances, tend to wait for mid-morning thermals to develop before departing.

IV. **Management zones and guidelines for feeding sites.**

To the maximum extent possible, feeding sites should be protected by adherence to the following protection zones and guidelines:

A. There should be no human intrusion into feeding sites when storks are present. Depending upon the amount of screening vegetation, human activity should be no closer than between 300 feet (where solid vegetation screens exist) and 750 feet (no vegetation screen).

B. Feeding sites should not be subjected to water management practices that alter traditional water levels or the seasonally normal drying patterns and rates. Sharp rises in water levels are especially disruptive to feeding storks.

C. The introduction of contaminants, fertilizers, or herbicides into wetlands that contain stork feeding sites should be avoided, especially those compounds that could adversely alter the diversity and numbers of native fishes, or that could substantially change the characteristics of aquatic vegetation. Increase in the density and height of emergent vegetation can degrade or destroy sites as feeding habitat.

D. Construction of tall towers (especially with guy wires) within three miles, or high power lines (especially across long stretches of open country) within one mile of major feeding sites should be avoided.

V. **Management zones and guidelines for nesting colonies.**

A. Primary zone: This is the most critical area, and must be managed according to recommended guidelines to insure that a colony site survives.

1. Size: The primary zone must extend between 1000 and 1500 feet in all directions from the actual colony boundaries when there are no visual or broad aquatic barriers, and never less than 500 feet even when there are strong visual or aquatic barriers. The exact width of the primary zone in each direction from the colony can vary within this range, depending on the amount of visual screen (tall trees) surrounding the colony, the amount of relatively deep, open water between the colony and the nearest human activity, and the nature of the nearest human activity. In general, storks forming new colonies are more tolerant of existing human activity, than they will be of new human activity that begins after the colony has formed.

2. Recommended Restrictions:

a. Any of the following activities within the primary zone, at any time of the year, are likely to be detrimental to the colony:

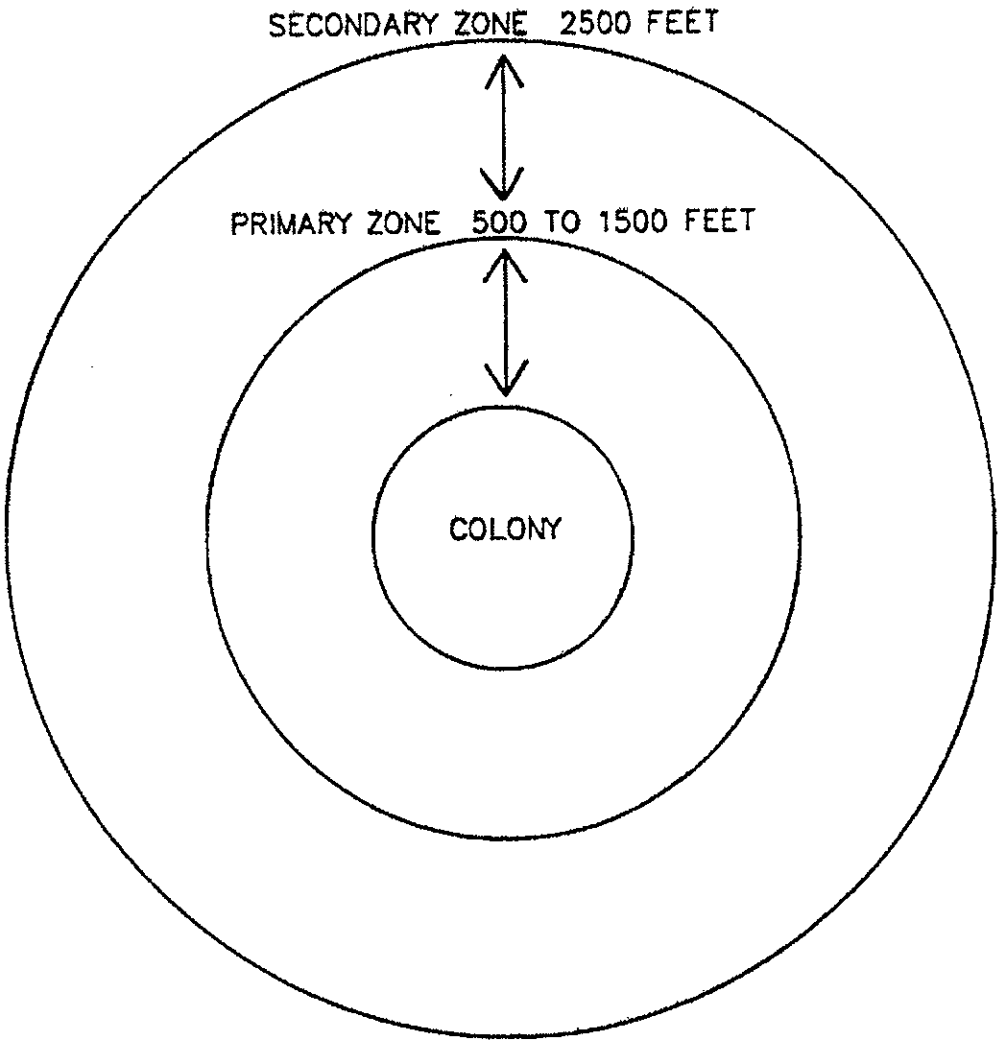
(1) Any lumbering or other removal of vegetation, and

(2) Any activity that reduces the area, depth, or length of flooding in wetlands under and surrounding the colony, except where periodic (less than annual) water control may be required to maintain the health of the aquatic, woody vegetation, and

(3) The construction of any building, roadway, tower, power line, canal, etc.

b. The following activities within the primary zone are likely to be detrimental to a colony if they occur when the colony is active:

(1) Any unauthorized human entry closer than 300 feet of the colony, and


SECONDARY ZONE 2500 FEET
PRIMARY ZONE 500 TO 1500 FEET
COLONY

(2) Any increase or irregular pattern in human activity anywhere in the primary zone, and

(3) Any increase or irregular pattern in activity by animals, including livestock or pets, in the colony, and

(4) Any aircraft operation closer than 500 feet of the colony.

B. Secondary Zone: Restrictions in this zone are needed to minimize disturbances that might impact the primary zone, and to protect essential areas outside of the primary zone. The secondary zone may be used by storks for collecting nesting material, for roosting, loafing, and feeding (especially important to newly fledged young), and may be important as a screen between the colony and areas of relatively intense human activities.

1. Size: The secondary zone should range outward from the primary zone 1000-2000 feet, or to a radius of 2500 feet of the outer edge of the colony.

2. Recommended Restrictions:

a. Activities in the secondary zone which may be detrimental to nesting wood storks include:

(1) Any increase in human activities above the level that existed in the year when the colony first formed, especially when visual screens are lacking, and

(2) Any alteration in the area's hydrology that might cause changes in the primary zone, and

(3) Any substantial (>20 percent) decrease in the area of wetlands and woods of potential value to storks for roosting and feeding.

b. In addition, the probability that low flying storks, or inexperienced, newly-fledged young will strike tall obstructions, requires that high-tension power lines be no closer than one mile (especially across open country or in wetlands) and tall trans-mission towers no closer than 3 miles from active colonies. Other activities, including busy highways and commercial and residential buildings may be present in limited portions of the secondary zone at the time that a new colony first forms. Although storks may tolerate existing levels of human activities, it is important that these human activities not expand substantially.

VI. Roosting site guidelines.

The general characteristics and temporary use-patterns of many stork roosting sites limit the number of specific management recommendations that are possible:

A. Avoid human activities within 500-1000 feet of roost sites during seasons of the year and times of the day when storks may be present. Nocturnal activities in active roosts may be especially disruptive.

B. Protect the vegetative and hydrological characteristics of the more important roosting sites--those used annually and/or used by flocks of 25 or more storks. Potentially, roosting sites may, some day, become nesting sites.

VII. Legal Considerations.

A. Federal Statutes

The U.S. breeding population of the wood stork is protected by the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.)(Act). The population was listed as endangered on February 28, 1984 (49 Federal *Register* 7332); wood storks breeding in Alabama, Florida, Georgia, and South Carolina are protected by the Act.

Section 9 of the Endangered Species Act of 1973, as amended, states that it is unlawful for any person subject to the jurisdiction of the United States to take (defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.") any listed species anywhere within the United States.

The wood stork is also federally protected by its listing (50 CFR 10.13) under the Migratory Bird Treaty Act (167 U.S.C. 703-711), which prohibits the taking, killing or possession of migratory birds except as permitted.

B. State Statutes

1. State of Alabama

Section 9-11-232 of Alabama's Fish, Game, and Wildlife regulations curtails the possession, sale, and purchase of wild birds. "Any person, firm, association, or corporation who takes, catches, kills or has in possession at any time, living or dead, any protected wild bird not a game bird or who sells or offers for sale, buys, purchases or offers to buy or purchase any such bird or exchange same for anything of value or who shall sell or expose for sale or buy any part of the plumage, skin, or body of any bird protected by the laws of this state or who shall take or willfully destroy the nests of any wild bird or who shall have such nests or eggs of such birds in his possession, except as otherwise provided by law, shall be guilty of a misdemeanor...

Section 1 of the Alabama Nongame Species Regulation (Regulation 87-GF-7) includes the wood stork in the list of nongame species covered by paragraph (4). " It shall be unlawful to take, capture, kill, possess, sell, trade for anything of monetary value, or offer to sell or trade for anything of monetary value, the following nongame wildlife species (or any parts or reproductive products of such species) without a scientific collection permit and written permission from the Commissioner, Department of Conservation and Natural Resources,..."

2. State of Florida

Rule 39-4.001 of the Florida Wildlife Code prohibits "taking, attempting to take, pursuing, hunting, molesting, capturing, or killing (collectively defined as "taking"), transporting, storing, serving, buying, selling,

possessing, or wantonly or willingly wasting any wildlife or freshwater fish or their nests, eggs, young, homes, or dens except as specifically provided for in other rules of Chapter 39, Florida Administrative Code.

Rule 39-27.011 of the Florida Wildlife Code prohibits "killing, attempting to kill, or wounding any endangered species." The "Official Lists of Endangered and Potentially Endangered Fauna and Flora in Florida" dated 1 July 1988, includes the wood stork, listed as "endangered" by the Florida Game and Fresh Water Fish Commission.

3. State of Georgia

Section 27-1-28 of the Conservation and Natural Resources Code states that "Except as otherwise provided by law, rule, or regulation, it shall be unlawful to hunt, trap, fish, take, possess, or transport any nongame species of wildlife..."

Section 27-1-30 states that, "Except as otherwise provided by law or regulation, it shall be unlawful to disturb, mutilate, or destroy the dens, holes, or homes of any wildlife;

Section 27-3-22 states, in part, "It shall be unlawful for any person to hunt, trap, take, possess, sell, purchase, ship, or transport any hawk, eagle, owl, or any other bird or any part, nest, or egg thereof...".

The wood stork is listed as endangered pursuant to the Endangered Wildlife Act of 1973 (Section 27-3-130 of the Code). Section 391-4-13-.06 of the Rules and Regulations of the Georgia Department of Natural Resources prohibits harassment, capture, sale, killing, or other actions which directly cause the death of animal species protected under the Endangered Wildlife Act. The destruction of habitat of protected species on public lands is also prohibited.

4. State of South Carolina

Section 50-15-40 of the South Carolina Nongame and Endangered Species Conservation Act states, "Except as otherwise provided in this chapter, it shall be unlawful for any person to take, possess, transport, export, process, sell, or offer of sale or ship, and for any common or contract carrier knowingly to transport or receive for shipment any species or subspecies of wildlife appearing on any of the following lists: (1) the list of wildlife indigenous to the State, determined to be endangered within the State...(2) the United States' List of Endangered Native Fish and Wildlife... (3) the United States' List of Endangered Foreign Fish and Wildlife ..."

U.S. Fish and Wildlife Service
Supplemental
Habitat Management Guidelines
for the
Wood Storks
In The
South Florida Ecological Services
Consultation Area
June 28, 2002

Introduction

The purpose of these supplemental guidelines is to provide assistance to the user in addressing species-specific resource questions for the endangered wood stork (*Mycteria americana*) in south Florida. These supplemental guidelines provide guidance in addressing species effects associated with consultations with the South Florida Ecological Services Office under sections 7 and 10 of the Endangered Species Act of 1973, as amended (87 Stat. 884; 16 U.S.C. 1531 et seq.). These supplemental guidelines are in addition to the *Habitat Management Guidelines for the Wood Stork in the Southeast Region* (HMG - Service 1990), which is the principle guidance that the Service relies on to provide management options for wood stork colony protection and species recovery.

The following discussion is intended to provide the user with some of the basic science and reasoning for the recommended supplemental wood stork habitat management guides. More detailed discussions of the ecology of the wood stork are available in the *South Florida Multi-species Recovery Plan* (Service 1999), *Wood Stork Recovery Plan* (1996), and *Species Profile: Wood Storks on Military Installations in the Southeastern United States* (Mitchell 1999).

Colony

Wood storks nest in colonies and will return to the same colony site for many years so long as the site and the surrounding feeding habitat continues to supply the needs of the birds. Nesting colony life averages 115 to 120 days. Nest sites are generally in woody vegetation over standing water, or on islands surrounded by broad expanses of open water. In south Florida, wood storks generally begin their breeding cycle in November through January with peek activity in December. Nestling dispersal is in late April through early May. In central and north Florida and other northern nesting sites, nesting activities begin in late February through April with nestling dispersal between July through August.

In response to deteriorating habitat conditions in south Florida, nest initiation has shifted to February or March with nestling dispersal in July through August. This shift results in the presence of young in the nest when the May-June rains flood marshes and disperse fish, resulting in loss of nestlings to weather events or starvation of the young from lack of concentrated prey.

Nest Productivity

Researchers (Kahl 1964 and Rodgers *et al.,* 1987) have shown that the more successful nesting efforts by storks result from a combination of average or above-average rainfall during the summer rainy season and an absence of unusually rainy or cold weather during the winter-spring nesting season. This pattern produces widespread and prolonged flooding of summer marshes that maximize production of freshwater fishes, followed by steady drying that concentrate fish during the dry season when storks nest (Kahl 1964). During the summer months, the rains saturate thousands of acres of Florida, and fish are able to reproduce and grow rapidly. By October, the rains taper off and the water recedes. The water areas fragment into hundreds of individual ponds that slowly shrink as the dry season progresses, concentrating the fish.

Successful nesting colonies are also those that have a large number of feeding site options. To maintain the wide range of feeding site options requires that many different wetlands, with both relatively short and long annual hydroperiods be present. During the wet season, wood storks generally feed in the shallow water of the short-hydroperiod wetlands and in coastal habitats during low tide. During the dry season, foraging shifts to longer hydroperiod interior wetlands as they progressively dry down (although usually retaining some surface water throughout the dry season) (Fleming, *et al.,* 1994).

Good feeding conditions usually occur where the water is relatively calm and uncluttered by dense thickets of aquatic vegetation and successful foraging sites are those where the water is between 2 and 15 inches deep. Generally a dropping water level is necessary to concentrate fish in suitable densities. Conversely, a rising water level disperses fish and reduces the value of a site as a feeding habitat. Typical wet season densities of fish range from 50 fish/m^2 in long-hydroperiod wetlands to 10 fish/m^2 in short-hydroperiod wetlands (Loftus and Eklund 1994). Average weight of the fish is 1.73 g (Ogden *et al.* 1980). Based on the above, 5 acres of short hydroperiod wetlands would be necessary to provide the same nutritional needs that one acre of long hydroperiod wetlands would provide. However, each wetland type provides foraging needs during different times of the year and as such, are not interchangeable.

Nesting wood storks do most of their feeding between 5 and 40 miles from the colony. Coulter (1987) found that in a wood stork colony, 62% of foraging areas were within 10 km. Ogden *et al.* (1978) and Coulter (1987) suggest that wood storks generally use foraging sites that are located within about 50 km (31 miles) flight range of the colony. Coulter and Bryan (1993) note that although foraging areas may be 60 to 80 km (37 to 50 miles) from the colony, 85 percent are within 20 km (12.5 miles). The Florida Fish and Wildlife Conservation Commission considers 30 km (18.6 miles) as the core foraging area (CFA) for nesting wood storks (Cox *et al.* 1994).

Successful colonies are also those that have limited human disturbance and those where land-based mammalian predation is limited. If adult storks are forced to leave their nests as a result of human disturbance, eggs or downy young may die quickly (< 20 minutes) when exposed to

direct sun or rain. Rodgers and Smith (1997) have recommended a buffer distance of 100 meters (325 feet) from the nesting colony as the minimum distance for human disturbances.

Land based mammalian predators may also affect nest productivity. Mammalian predators of wood stork nests include a variety of land based animals such as racoons and skunks. Generally, these dry-land predators do not have access to the nesting colony except when water levels below the nests recede or when significant vegetation bridges (dense growths of water hycanthes, water lettuce, etc.) allow direct access to the nesting colony. Successful nesting colonies from land based predators have been characterized as those that are surrounded by large expanses of open water, or those where the nest trees are inundated at the onset of nesting and remain inundated throughout most of the breeding cycle. Successful nesting colonies often have water depths between 3 and 5 feet deep during the nesting season and also go through periodic dry-downs during the tail-end of the dry season. The periodic dry-down facilitates recruitment of nest trees. Therefore, an important parameter in colony success from land-based predation is the hydroperiod (duration that an area is inundated) and hydropattern (depth, timing, flow, and location of surface water) beneath the colony.

Breeding Cycles

In South Florida, wood storks generally begin their breeding cycle in November, with peek activity in December. Nestling dispersal begins in late April and continues through early May. Based on a 120 day nesting cycle, courtship and nest building requires 7 to 10 days, egg laying and incubation requires 25 to 27 days, hatchling growth to thermoregulation (chicks have down and feathers) requires approximately 28 days, growth to fledging requires an additional 42 days, and post fledging to colony dispersal requires 10 to 15 days.

Rodgers and Schwikert (1997) report the greatest period of mortality occurs prior to hatching, with a second large mortality during the nestling period from hatchling to 2 weeks. During these early periods of the breeding cycle, the nest is tended by at least one of the adults with egg protection and feeding of the young shared by both. During early nesting, when downy young are present, the adults may feed the young as often as 10 to15 times a day. Growth is very rapid with the young at age 14 days, weighing 10 times more than they did at hatching and 25 times heavier at 28 days (Service 2001). Fifty percent of the nestling wood stork's food requirements occur during the middle third of the nestling period (Kahl 1962), which corresponds to age 28 to 56 days.

Conclusion

In review, the Service believes that in order to minimize take of a listed species (loss of nest productivity) and to support recovery efforts for the wood stork, the following supplemental guidance is applicable for protection of the nest colony, primary and secondary zones, CFA, and adult foraging areas. The Service considers actions that affect the nest colony, primary and secondary zones, and CFA as direct effects and actions that affect wetlands outside the CFA as indirect effects.

1. Nest colony

   a. No human intrusion within 100 meters (325 feet) during active nesting period (November through August). Range covers pre-drainage Everglades, post-drainage Everglades, and central and northern Florida nesting cycles. Colony entry for maintenance and management actions during other times of the year is acceptable. The nests and nest trees are protected year-round.

   b. No reduction in water levels at nest site during active nesting period. Maintain hydroperiod cycle to provide minimum of 2 to 5 feet of standing water below colony during nest activity. Provide for periodic dry-down of nest colony to promote recruitment of new nest trees during latter part of dry weather cycle.

      Since nest colony protection from land base predators (raccoons) is based on seasonal wet-dry cycles, coordinate changes in hydrology to match seasonal rainfall events.

      1. South Florida hydroperiod - Nest colony flooded late October - early November, gradual drying out of foraging area with colony site dry late April early May. May - June rains begin wet cycle.

      2. Central and north Florida hydroperiod - Nest colony flooded late February early May, gradual drying out of foraging area with colony site dry late August early September.

      3. For dry island nesting colonies, water levels in the surrounding openwater should be managed to prevent land base predators from access to the colony.

2. Primary Zone - 1,300 feet (400 meters)

   The primary zone includes the nest colony and a 1,300 foot radius surrounding the colony. Since some nest colonies can cover several acres in distance, the primary zone can be larger than 1,300 feet. Restrictions in the primary zone follow those listed in the management recommendation in the wood stork HMG (1990). Restrictions in the primary zone include both year-round restrictions and nesting-season restrictions.

   a. Year round restrictions include vegetation removal, changes in hydroperiod, and the construction of buildings, roadways, towers, powerlines, or canals. Nuisance species removal and normal maintenance activities may occur outside the nesting season.

   b. Nesting season restrictions include unauthorized human entry within 300 feet of colony, an increase or change in pattern of human activity anywhere within the primary zone, an increase or change in pattern of livestock (livestock should be restricted from

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entering colony any time of the year), or aircraft/airboat operation closer than 500 feet of the colony.

3. Secondary Zone - 2,500 feet (750 meters)

The secondary zone is important to storks for collecting nest material, roosting, loafing, and feeding (especially important to newly fledged young). Restrictions in the secondary zone include changes in human activity above existing levels, alterations in area hydrology that might affect hydrology of primary zone, and any decrease in the area of wetlands and woods of potential value to wood storks for roosting and feeding (see core foraging area restrictions, discussed below).

4. Powerline and cell tower restrictions (≤200-foot height) - no closer than 1 mile from rookery.

5. Towers greater than 200 feet - no closer than 3 miles from rookery.

6. Core foraging area (CFA) for Nesting Wood Storks (30 km - 18.6 miles)

The Service's goal in this portion of the protocol is to protect and enhance the foraging habitat for wood storks during the nesting season. For this purpose, the Service believes that the foraging range noted by the FWC is the appropriate distance. Therefore, in order to reduce loss of nest productivity (take of a listed species), the Service recommends the following for wetland alterations within the CFA, which also includes the primary and secondary zones.

a. Wetland enhancement, *i.e.*, exotic species removal and/or hydrological restorations may occur within the primary and secondary zones outside the nesting season and any time of the year for the remainder of the CFA. For wetland enhancements and hydrological restorations, the current and historic ratio of short hydroperiod and long hydroperiod wetlands needs to be identified. The importance of each type of wetland has been discussed and should be the basis for the type of wetlands targeted for restoration purposes.

b. Wetland alterations within the CFA of a wood stork colony need to compensate for the loss of this foraging resource. The Service believes that compensation needs to not only include the replacement of this resource but also needs to include compensation for the growth time (temporal lag) necessary for the new resource to achieve foraging value equal to that provided by the original wetland. The current resource value to the colony may be determined by the use a of wetland functional assessment protocol (use the currently accepted Federal/State assessment protocol). Of particular importance in the evaluation is the type of wetland, *i.e.*, short hydroperiod or long hydroperiod. The Service (1999) describes a short hydroperiod as a two to five month wet/dry cycle, and a long hydroperiod as greater than 5

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months. For wetland compensation, providing a short hydroperiod replacement for a long hydroperiod impact does not provide the same functional value to the colony. Also providing functional replacement outside the CFA of the colony does not provide the same resource value to the colony.

7. Adult Foraging Areas, Year Round

In addition to south Florida wetlands providing nutritional needs to wood storks nesting in south Florida, they also provide non-breeding season foraging for north Florida, Georgia, and South Carolina's breeding populations (Service 1996). Typical foraging sites for the wood stork include freshwater marshes, stock ponds, shallow, and seasonally flooded roadside or agricultural ditches, narrow tidal creeks, shallow tidal pools, managed impoundments, and depressions in cypress heads, swamps, and sloughs. Because of their specialized feeding behavior, wood storks forage most effectively in shallow water areas with highly concentrated prey.

Therefore, for actions that affect year-round foraging areas, i.e., those outside the CFA, the Services recommends avoidance where possible, and functional replacement (including a temporal lag factor) for those systems that cannot be avoided. A wetland suitable for wood stork foraging needs to include a mosaic of emergent and shallow open water depressional areas. The emergent component provides nursery habitat for small fish, frogs, and aquatic insects and the shallow, openwater depressional areas provide sites for concentration of the prey during seasonal drying of the wetland. The compensation wetland needs to mimic when possible the historical hydroperiod of the impacted wetland.

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APPENDIX F

Florida Exotic Pest Plant Council's
2005

List of Invasive Species

Purpose of the List: *To focus attention on --*

- the adverse effects exotic pest plants have on Florida's biodiversity and plant communities,
- the habitat losses from exotic pest plant infestations,
- the impacts on endangered species via habitat loss and alteration,
- the need to prevent habitat losses through pest-plant management,
- the socio-economic impacts of these plants (e.g., increased wildfires in certain areas),
- changes in the seriousness of different pest plants over time,
- the need to provide information that helps managers set priorities for control programs.

DEFINITIONS: *Exotic*—a species introduced to Florida, purposefully or accidentally, from a natural range outside of Florida. *Native*—a species whose natural range included Florida at the time of European contact (1500 AD). *Naturalized exotic*—an exotic that sustains itself outside cultivation (it is still exotic; it has not "become" native). *Invasive exotic*—an exotic that not only has naturalized but is expanding on its own in Florida plant communities.

Abbreviations used:

for "Gov. list": **P** = Prohibited by Fla. Dept. of Environmental Protection, **N** = Noxious weed listed by Fla. Dept. of Agriculture & Consumer Services, **U** = Noxious weed listed by U.S. Department of Agriculture.

for "Reg. Dis.": **N** = north, **C** = central, **S** = south, referring to each species' current distribution in general

regions of Florida (not its potential range in the state). See following map.

For additional information on distributions of particular species by county, visit the University of South Florida's Atlas of Florida Vascular Plants web site, www.plantatlas.usf.edu. **Many of those species entries also have habit and close-up pictures of the species.**
Additional images for some species may be found at the "Introduced Species" page on the Univ. of Florida Herbarium **website, at Fairchild Tropical Garden's** Virtual Herbarium, and the Godfrey Herbarium database, **Florida State University.**
For other additional information on plants included in this list, see related links and pages at this web site on the home page **menu.**

Category I - Invasive exotics that are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives. *This definition does not rely on the economic severity or geographic range of the problem, but on the documented ecological damage caused.*

Scientific Name	Common Name	EPPC Cat.	Gov. list	Reg. Dist.
Abrus precatorius	rosary pea	I		C, S
Acacia auriculiformis	earleaf acacia	I		S
Albizia julibrissin	mimosa, silk tree	I		N, C
Albizia lebbeck	woman's tongue	I		C, S
Ardisia crenata (= *A. crenulata*)	coral ardisia	I		N, C
Ardisia elliptica (=*A. humilis*)	shoebutton ardisia	I		S
Asparagus aethiopicus (= *A. sprengeri; A. densiflorus* misapplied)	asparagus-fern	I		C, S
Bauhinia variegata	orchid tree	I		C, S
Bischofia javanica	bischofia	I		C, S
Calophyllum antillanum (=*C. calaba; C. inophyllum* misapplied)	santa maria (names "mast wood," "Alexandrian laurel" used in cultivation)	I		S
Casuarina equisetifolia	Australian pine	I	**P**	N,C,S
Casuarina glauca	suckering Australian pine	I	**P**	C, S
Cinnamomum camphora	camphor-tree	I		N,C,S
Colocasia esculenta	wild taro	I		N,C,S
Colubrina asiatica	lather leaf	I		S
Cupaniopsis anacardioides	carrotwood	I	**N**	C, S
Dioscorea alata	winged yam	I	**N**	N,C,S
Dioscorea bulbifera	air-potato	I	**N**	N,C,S
Eichhornia crassipes	water-hyacinth	I	**P**	N,C,S
Eugenia uniflora	Surinam cherry	I		C, S
Ficus microcarpa (*F. nitida* and *F. retusa* var. *nitida* misapplied)	laurel fig	I		C, S
Hydrilla verticillata	hydrilla	I	**P, U**	N,C,S
Hygrophila polysperma	green hygro	I	**P, U**	N,C,S
Hymenachne amplexicaulis	West Indian marsh grass	I		C, S
Imperata cylindrica (*I. brasiliensis* misapplied)	cogon grass	I	**N, U**	N, C, S
Ipomoea aquatica	waterspinach	I	**P, U**	C
Jasminum dichotomum	Gold Coast jasmine	I		C, S
Jasminum fluminense	Brazilian jasmine	I		C, S

Lantana camara	lantana, shrub verbena	I		N,C,S
Ligustrum lucidum	glossy privet	I		N, C
Ligustrum sinense	Chinese privet, hedge privet	I		N,C,S
Lonicera japonica	Japanese honeysuckle	I		N,C,S
Lygodium japonicum	Japanese climbing fern	I	**N**	N,C, S
Lygodium microphyllum	Old World climbing fern	I	**N**	C, S
Macfadyena unguis-cati	cat's claw vine	I		N,C, S
Manilkara zapota	sapodilla	I		S
Melaleuca quinquenervia	melaleuca, paper bark	I	**P, N, U**	C, S
Mimosa pigra	catclaw mimosa	I	**P, N, U**	C, S
Nandina domestica	nandina, heavenly bamboo	I		N, C
Nephrolepis cordifolia	sword fern	I		N,C,S
Nephrolepis multiflora	Asian sword fern	I		C, S
Neyraudia reynaudiana	Burma reed, cane grass	I	**N**	S
Paederia cruddasiana	sewer vine, onion vine	I	**N**	S
Paederia foetida	skunk vine	I	**N**	N,C
Panicum repens	torpedo grass	I		N,C,S
Pennisetum purpureum	Napier grass	I		C, S
Pistia stratiotes	waterlettuce	I	**P**	N,C,S
Psidium cattleianum (=P. littorale)	strawberry guava	I		C, S
Psidium guajava	guava	I		C, S
Pueraria montana var. *lobata* (=*P. lobata)*	kudzu	I	**N, U**	N,C, S
Rhodomyrtus tomentosa	downy rose-myrtle	I	**N**	C, S
Rhoeo spathacea (**see** *Tradescantia spathacea)*				
Rhynchelytrum repens	Natal grass	I		N, C, S
Ruellia tweediana (= *R. brittoniana)*	Mexican petunia	I		N, C, S
Sapium sebiferum (= *Triadeca sebifera)*	popcorn tree, Chinese tallow tree	I	**N**	N, C, S
Scaevola taccada (=Scaevola sericea, S. frutescens)	scaevola, half-flower, beach naupaka	I		C, S
Schefflera actinophylla (=Brassaia actinophylla)	schefflera, Queensland umbrella tree	I		C, S
Schinus terebinthifolius	Brazilian pepper	I	**P, N**	N, C, S
Senna pendula var. *glabrata (=Cassia coluteoides)*	climbing cassia, Christmas cassia, Christmas senna	I		C, S
Solanum tampicense (=S. houstonii)	wetland night shade, aquatic soda apple	I	**N, U**	C, S
Solanum viarum	tropical soda apple	I	**N, U**	N, C, S

Syngonium podophyllum	arrowhead vine	I		C, S
Syzygium cumini	jambolan, Java plum	I		C, S
Tectaria incisa	incised halberd fern	I		S
Thespesia populnea	seaside mahoe	I		C, S
Tradescantia fluminensis	white-flowered wandering jew	I		N, C
Tradescantia spathacea (= *Rhoeo spathacea, Rhoeo discolor*)	oyster plant	I		S
Urochloa mutica (= *Brachiaria mutica)*	Pará grass	I		C, S

Category II - Invasive exotics that have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species. *These species may become ranked Category I, if ecological damage is demonstrated.*

Scientific Name	Common Name	EPPC Cat.	Gov. list	Reg. Dist.
Adenanthera pavonina	red sandalwood	II		S
Agave sisalana	sisal hemp	II		C, S
Aleurites fordii (= *Vernicia fordii)*	tung oil tree	II		N, C
Alstonia macrophylla	devil-tree	II		S
Alternanthera philoxeroides	alligator weed	II	P	N, C, S
Antigonon leptopus	coral vine	II		N, C, S
Aristolochia littoralis	calico flower	II		N, C
Asystasia gangetica	Ganges primrose	II		C, S
Begonia cucullata	wax begonia	II		N, C
Blechum pyramidatum	green shrimp plant, Browne's blechum	II		N, C, S
Broussonetia papyrifera	paper mulberry	II		N, C
Callisia fragrans	inch plant, spironema	II		C, S
Casuarina cunninghamiana	Australian pine	II	P	C, S
Cecropia palmata	trumpet tree	II		S
Cestrum diurnum	day jessamine	II		C, S
Chamaedorea seifrizii	bamboo palm	II		S
Clematis terniflora	Japanese clematis	II		N, C
Cryptostegia madagascariensis	rubber vine	II		C, S
Cyperus involucratus (C. alternifolius	umbrella plant	II		C, S

misapplied)				
Cyperus prolifer	dwarf papyrus	II		C
Dalbergia sissoo	Indian rosewood, sissoo	II		C, S
Elaeagnus pungens	thorny eleagnus	II		N, C
Epipremnum pinnatum cv. Aureum	pothos	II		C, S
Ficus altissima	false banyan, council tree	II		S
Flacourtia indica	governor's plum	II		S
Hemarthria altissima	limpo grass	II		C, S
Hibiscus tiliaceus	mahoe, sea hibiscus	II		C, S
Ipomoea fistulosa (= *I. carnea* ssp. *fistulosa*)	shrub morning-glory	II	**P**	C, S
Jasminum sambac	Arabian jasmine	II		S
Kalanchoe pinnata	life plant	II		C, S
Koelreuteria elegans ssp. *formosana* (= *K. formosana; K. paniculata* misapplied)	flamegold tree	II		C, S
Leucaena leucocephala	lead tree	II		N, C, S
Limnophila sessiliflora	Asian marshweed	II	**P**	N, C, S
Livistona chinensis	Chinese fan palm	II		C, S
Melia azedarach	Chinaberry	II		N,C,S
Merremia tuberosa	wood-rose	II		S
Murraya paniculata	orange-jessamine	II		S
Myriophyllum spicatum	Eurasian water-milfoil	II	**P**	N, C, S
Nymphoides cristata	snowflake	II		C, S
Panicum maximum	Guinea grass	II		C, S
Passiflora biflora	two-flowered passion vine	II		S
Pennisetum setaceum	green fountain grass	II		S
Phoenix reclinata	Senegal date palm	II		C, S
Pittosporum pentandrum	Philippine pittosporum, Taiwanese cheesewood	II		S
Phyllostachys aurea	golden bamboo	II		N, C
Pteris vittata	Chinese brake fern	II		N, C, S
Ptychosperma elegans	solitary palm	II		S
Ricinus communis	castor bean	II		N, C, S
Sansevieria hyacinthoides	bowstring hemp	II		C, S
Scleria lacustris	Wright's nutrush	II		C, S
Sesbania punicea	purple sesban, rattlebox	II		N, C, S
Solanum diphyllum	Two-leaf nightshade	II		N, C, S
Solanum jamaicense	Jamiaca nightshade	II		C
Solanum torvum	susumber, turkey berry	II	**N, U**	N, C, S
Sphagneticola trilobata	wedelia	II		N, C, S

(= Wedelia trilobata)				
Stachytarpheta urticifolia (= *S. cayennensis)*	nettle-leaf porterweed	II		S
Syagrus romanzoffiana (= *Arecastrum romanzoffianum)*	queen palm	II		C, S
Syzygium jambos	rose-apple	II		C, S
Terminalia catappa	tropical almond	II		C, S
Terminalia muelleri	Australian almond	II		C, S
Tribulus cistoides	puncture vine, burr-nut	II		N, C, S
Urena lobata	Caesar's weed	II		N, C, S
Vitex trifolia	simple-leaf chaste tree	II		C, S
Washingtonia robusta	Washington fan palm	II		C, S
Wedelia (**see** *Sphagneticola* above)				
Wisteria sinensis	Chinese wisteria	II		N, C
Xanthosoma sagittifolium	malanga, elephant ear	II		N, C, S

Citation example:
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APPENDIX G

Transportation Methodology
Western Grove

Western Grove DRI is a proposed mixed-use development to be located north and south of Gatlin Boulevard east of Range Line Road in the western area of the City of Port St. Lucie. The project is to be built in three phases with buildout in the year 2020. The following table summarizes cumulative development for each phase:

Land Use	Phase 1 (2010)	Phase 2 (2015)	Phase 3 (2020)
Single-Family	846 d.u.	1,901 d.u.	3,268 d.u.
Multi-Family	-	392 d.u.	812 d.u.
Commercial	-	125,453 s.f.	365,904 s.f.
Office/Service	-	69,696 s.f.	250,906 s.f.
Institutional	12,100 s.f.	35,040 s.f.	54,450 s.f.
Parks	10 acres	20 acres	20 acres
School	-	2,220 students	2,220 students

d.u. – dwelling units
s.f. – square feet

Traffic Study

The Western Grove DRI traffic impact was evaluated as part of the Western Annexation Traffic Study (WATS) (Appendix I). Since the WATS includes four phases with buildout in 2025, the analysis presented here as well as the recommended conditions of development have been prepared for buildout of the WATS. Should Western Grove DRI be complete in the year 2020, additional conditions would not apply.

Information included here is specific to the Western Grove DRI and is not described in any detail in the *WATS Final Report.*

In order to perform the traffic study, the project was divided into Traffic Analysis Zones (TAZs). Figure TR-1 includes all TAZs within the Western Annexation Area. TAZs 371, 372 and 373 correspond to Western Grove. Land uses associated with each TAZ are described in detail in the following tables:

Phase 1 (Year 2010)

Land Use	TAZ 371	TAZ 372	TAZ 373	Total
Single-Family	498 d.u.	348 d.u.	-	846 d.u.
Multi-Family	-	-	-	-
Commercial	-	-	-	-
Office/Service	-	-	-	-
Institutional	7,260 s.f.	4,840 s.f.	-	12,100 s.f.
Parks	5 acres	5 acres	-	10 acres
School	-	-	-	-

Phase 2 (Year 2015)

Land Use	TAZ 371	TAZ 372	TAZ 373	Total
Single-Family	832 d.u.	651 d.u.	418 d.u.	1,901 d.u.
Multi-Family	392 d.u.	-	-	392 d.u.
Commercial	108,725 s.f.	16,728 s.f.	-	125,453 s.f.
Office/Service	60,413 s.f.	9,283 s.f.	-	69,696 s.f.
Institutional	14,520 s.f.	14,520 s.f.	6,000 s.f.	35,040 s.f.
Parks	10 acres	10 acres	-	20 acres
School	1,400 students	820 students	-	2,200 students

Phase 3 (Year 2020)

Land Use	TAZ 371	TAZ 372	TAZ 373	Total
Single-Family	1,103 d.u.	1,443 d.u.	722 d.u.	3,268 d.u.
Multi-Family	600 d.u.	212 d.u.	-	812 d.u.
Commercial	240,451 s.f.	41,819 s.f.	83,634 s.f.	365,904 s.f.
Office/Service	181,210 s.f.	23,232 s.f.	46,464 s.f.	250,906 s.f.
Institutional	18,150 s.f.	24,200 s.f.	12,100 s.f.	54,450 s.f.
Parks	10 acres	10 acres	-	20 acres
School	1,400 students	820 students	-	2,200 students

d.u. – dwelling units
s.f. – square feet

It is imperative that the project develops consistent with the land uses allocated within the TAZs as presented above.

Trip Generation, distribution and Assignment

Trip generation characteristics of the proposed development were determined using rates and equations included in the *Institute of Transportation Engineers (ITE) Trip Generation Report, 7th Edition*. The following table summarizes the daily and p.m. peak hour gross trip generation for each development phase:

Gross Trip Generation	Phase 1 (2010)	Phase 2 (2015)	Phase 3 (2020)
Daily			
Total	8,220	33,910	62,378
In	4,110	16,955	31,189
Out	4,110	16,955	31,189
PM Peak Hour			
Total	821	3,264	6,013
In	509	1,804	3,231
Out	312	1,460	2,782

Given the mixed use nature of the development, a portion of the identified gross trips generated have the potential to be satisfied on site, and will have no impact to the external roadway network. These trips are referred to as internal capture. Internal capture was estimated within each TAZ and among all TAZs. In addition, reductions for pass-by

were applied to the retail portion of the development based on methodology developed for the WATS. The following table presents the daily and p.m. peak hour net trip generation for each development phase:

Net Trip Generation	Phase 1 (2010)	Phase 2 (2015)	Phase 3 (2020)
Daily			
Total	7,963	26,969	46,320
In	3,981	13,484	23,310
Out	3,982	13,485	23,310
PM Peak Hour			
Total	797	2,618	4,537
In	497	1,480	2,493
Out	300	1,138	2,044

The Florida Standard Urban Transportation Model Structure (FSUTMS) was used for the WATS. This model was used to evaluate future traffic along roadways west of I-95 as well as to determine traffic distribution and assignment for each of the developments.

Significant Impact

Roadway improvements were determined based on the Department of Community Affair's Transportation Standard Rule for DRI's (Rule 9J-2.045, F.A.C.). Based on the rule, roadway improvements are recommended for roadway sections significantly impacted by project traffic which meet the following two criteria:

- Project traffic is five percent (5%) or more of the adopted peak-hour/peak direction level of service, and
- Total traffic exceeds the adopted level of service.

Tables TR-1 through TR-4 present project traffic assignment as well as the determination of significant impact for each development phase.

Roadway Network

Both the internal and external roadway network will be expanded concurrent with development. The City of Port St. Lucie is currently working on preparing interchange justification reports for I-95 with Becker Road and Crosstown Parkway (formerly known as West Virginia Corridor). The City is also working to acquire right-of-way and allocate the funds necessary to build Crosstown Parkway from Range Line Road to US-1. The two interchanges mentioned above have been included in the WATS in Phase 1 (year 2010).

In accordance with Rule 9J-2.045, F.A.C., roadway improvements included in the current three years of the County's Improvement Program and/or the Florida Department of Transportation Adopted Work Program are assumed to be committed improvements. Therefore, the following improvement has been considered as existing in the traffic study:

- Construction of the Western Corridor (Port St. Lucie Boulevard extension) between Becker Road and Martin Highway (SR 714) with a 2-lane cross-section.

Analysis

The traffic study was divided into two areas: internal and external roadway network. The internal roadway network contained the area generally bounded by Range Line Road, I-95, Gatlin Boulevard, and the St. Lucie/Martin County boundary line.

Future traffic was projected based on the results of the model as well as using background growth rates. Tables TR-5 through TR-8 summarize total traffic at buildout of each development phase for the external roadway network. Figures showing the ultimate lane geometry for the study area are included in the *WATS Final Report*.

Roadway modifications have been recommended as conditions of development in order to maintain the roadway network at the adopted levels of service.

Guarantee for Roadway Improvements

Rule 9J-2.045, F.A.C. defines acceptable methods of guaranteeing identified roadway improvements:

"1. Scheduling of Facility Improvements

a) A schedule which specifically provides for the mitigation of impacts from the proposed development on each significantly impacted roadway which will operate below the adopted level of service standard at the end of each project Phase's build out, or alternatively, a subset stage of that Phase. The schedule shall ensure that each and every roadway improvement which is necessary to achieve the adopted level of service standard for that project stage or Phase shall be guaranteed to be in place and operational, or under actual construction for the entire improvement, at build out of each project stage or Phase that creates the significant impact.

This guarantee shall be in the form of:

I. A clearly identified, executed and recorded local government development agreement, consistent with Sections 163.3220 through 163.3243, F.S., that is attached as an exhibit to the development order, and which ensures, at a minimum, that all needed roadway improvements will be available concurrent with the impacts of development, consistent with paragraph 163.3180 (2) (c), F.S.;

II. A binding and enforceable commitment in the development order by the local government to provide all needed roadway improvements concurrently with the development schedule approved in the development order;

III. A local government commitment in the current year of their local government comprehensive plan Capital Improvement Element (CIE) to provide all needed roadway improvements, or a local government commitment in the current three years of their CIE to provide all needed roadway improvements when the local government has specifically adopted an in-compliance Rule 9J-5.0055 (2) (c), F.A.C., concurrency management system in their plan;

IV. A Florida Department of Transportation commitment in the current three years of the Adopted Work Program to provide all needed roadway improvements;

V. A binding and enforceable commitment in the development order by the developer to provide all needed roadway improvements concurrently with the development schedule approved in the development order; or

VI. Any combination of guarantees I through V above that ensures that all needed roadway improvements will be provided concurrently with the development schedule approved in the development order."

Along with including the recommended conditions in the development order, the City of Port St. Lucie needs to provide a form of guarantee as stated above to meet the minimum criteria for insuring DCA will not appeal the DO. In accordance with the Transportation Standard Rule, the City of Port St. Lucie should attach an executed and recorded local government development agreement as an exhibit to the development order, if applicable. A condition specifying compliance with this agreement as a circumstance underlying approval of the project is recommended.

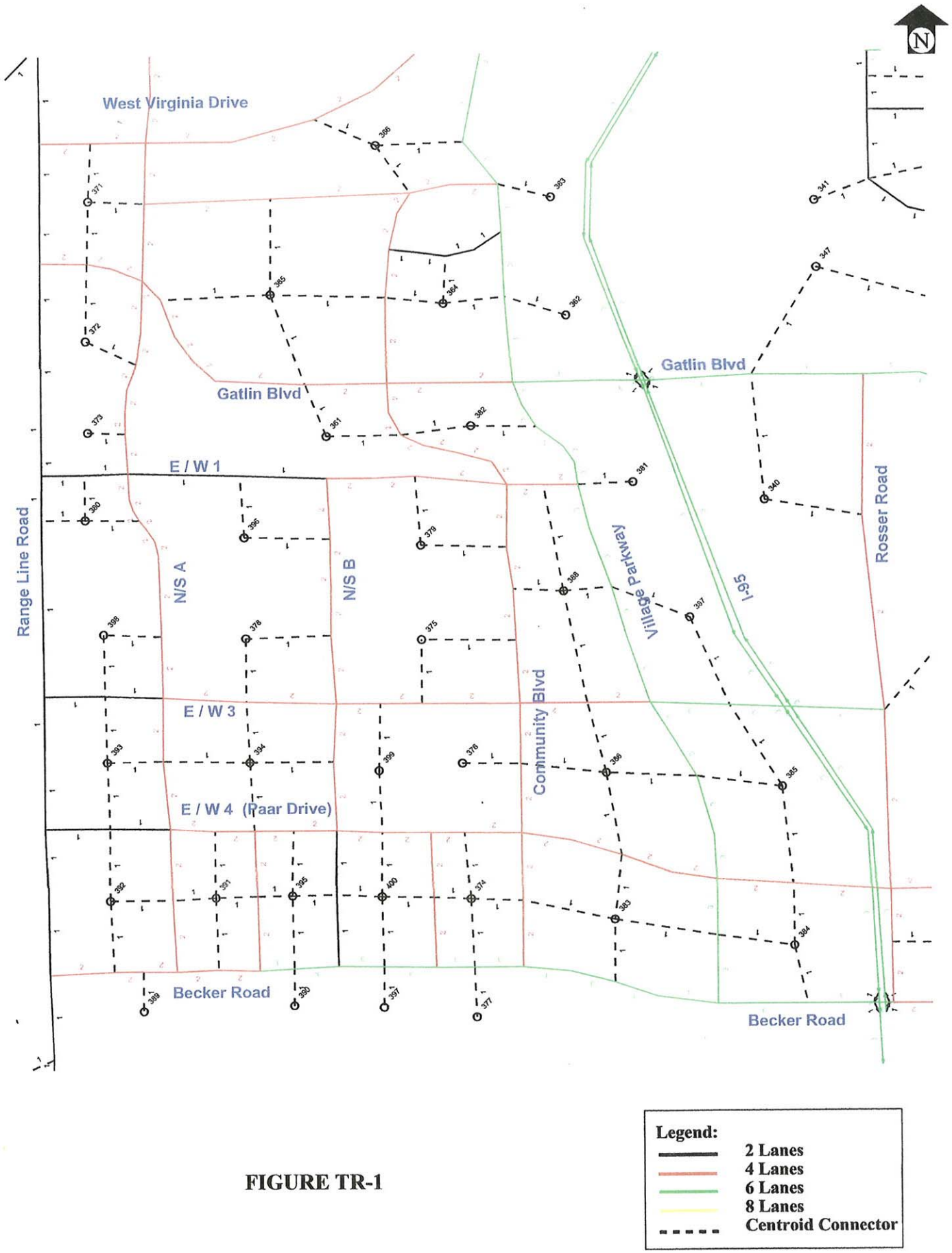
N
West Virginia Drive
Gatlin Blvd
Gatlin Blvd
E / W 1
E / W 3
E / W 4 (Raar Drive)
Range Line Road
N/S A
N/S B
Community Blvd
Village Parkway
I-95
Rosser Road
Becker Road
Becker Road
Legend:
2 Lanes
4 Lanes
6 Lanes
8 Lanes
Centroid Connector

FIGURE TR-1

TABLE TR-1

Western Annexation Study

2010 Western Grove Significant Impact

External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Range Line	Martin Hwy. to Becker Rd.	2	2.3%	183	11	7	810	1%	1%	N	N
	Becker Rd. to E/W 3	2	0.0%	0	0	0	810	0%	0%	N	N
	E/W 3 to Glades Cut-Off Rd.	2	0.0%	0	0	0	810	0%	0%	N	N
Glades Cut-Off Rd.	Range Line / CR 609 to Commerce Center Pkwy.	2	0.6%	48	2	3	760	0%	0%	N	N
	Commerce Center Pkwy to Midway Rd.	2	0.6%	48	2	3	760	0%	0%	N	N
	N. of Midway Rd.	2	1.6%	127	5	8	760	1%	1%	N	N
N/S A	Gatlin to E/W XY	2	50.3%	4,005	151	250	860	18%	29%	Y	Y
Community Blvd.	Gatlin Blvd. to E/W XY	2	1.7%	135	5	8	860	1%	1%	N	N
Commerce Center Pkwy.	West Virginia Blvd. to St. Lucie West Blvd.	4	4.2%	334	13	21	1860	1%	1%	N	N
	St. Lucie West Blvd. to Glades Cut-Off Rd.	2	1.4%	111	4	7	860	0%	1%	N	N
Village Pkwy.	Gatlin Blvd. to E/W XY	4	1.8%	143	5	9	1860	0%	0%	N	N
	E/W XY to West Virginia Blvd.	4	35.8%	2,851	107	178	1860	6%	10%	Y	Y
I-95	Martin Hwy. to Becker Rd.	6	17.4%	1,386	86	52	5410	2%	1%	N	N
	Becker Rd. to Gatlin Blvd.	6	20.9%	1,664	104	63	5410	2%	1%	N	N
	Gatlin Blvd. to West Virginia Blvd.	6	0.5%	40	2	2	5410	0%	0%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	6	21.2%	1,688	64	105	5410	1%	2%	N	N
	St. Lucie West Blvd. to Midway Rd.	6	15.0%	1,194	45	75	5410	1%	1%	N	N
NW Peacock Blvd. Loop	St. Lucie West Blvd. to California Blvd.	2	5.1%	406	15	25	760	2%	3%	N	N
	California Blvd. to Cashmere Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Rosser Blvd.	Becker Rd. to Paar Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Paar Dr. to Gatlin Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
W. Torino Pkwy.	California Blvd. to E. Torino Pkwy.	2	0.0%	0	0	0	760	0%	0%	N	N
E Torino Pkwy.	NW Peacock Blvd. to Midway Rd.	2	0.2%	16	1	1	760	0%	0%	N	N
S Torino Pkwy.	California Blvd. to Cashmere Blvd.	2	0.4%	32	1	2	760	0%	0%	N	N
California Blvd.	Del Rio Blvd. to Savonna Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	Savonna Blvd. to Del Rio Blvd.	2	0.7%	56	3	2	760	0%	0%	N	N
	Del Rio Blvd. to West Virginia Blvd.	2	0.8%	64	4	2	760	1%	0%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	2	3.9%	311	12	19	760	2%	3%	N	N
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	NW Peacock Blvd. Loop to W. Torino Pkwy.	2	0.4%	32	1	2	760	0%	0%	N	N
Savona Blvd.	Becker Rd. to Paar Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Paar Dr. to Gatlin Blvd.	2	1.0%	80	5	3	760	1%	0%	N	N
	Gatlin Blvd. to California Blvd.	2	0.2%	16	1	1	760	0%	0%	N	N
Cashmere Blvd.	Del Rio Blvd. to West Virginia Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	2	1.1%	88	3	5	760	0%	1%	N	N
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Del Rio Blvd.	Port St. Lucie Blvd. to California Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	California Blvd. to Cashmere Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	Cashmere Blvd. to California Blvd.	2	0.1%	8	0	0	760	0%	0%	N	N

TABLE TR-1

Western Annexation Study

2010 Western Grove Significant Impact

External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Port St. Lucie Blvd.	Martin Hwy. to Becker Rd.	2	2.5%	199	12	8	890	1%	1%	N	N
	Becker Rd. to Paar Dr.	2	0.0%	0	0	0	890	0%	0%	N	N
	Paar Dr. to Darwin Blvd.	2	0.6%	48	3	2	890	0%	0%	N	N
	Darwin Blvd. to Gatlin Blvd.	4	0.8%	64	4	2	1860	0%	0%	N	N
	Gatlin Blvd. to Del Rio Blvd.	6	13.4%	1,067	67	40	2790	2%	1%	N	N
	Del Rio Blvd. to Bayshore Blvd.	6	12.3%	979	37	61	2790	1%	2%	N	N
	Bayshore Blvd. to Airoso Blvd.	6	11.7%	932	35	58	2790	1%	2%	N	N
	Airoso Blvd. to Southbend Blvd./Floresta Dr.	6	11.2%	892	34	56	2790	1%	2%	N	N
	Southbend Blvd./Floresta Dr. to Midport Rd.	6	10.9%	868	33	54	2790	1%	2%	N	N
	Midport Rd. to US-1	6	7.3%	581	22	36	2790	1%	1%	N	N
	US-1 to Lennard Rd.	4	0.9%	72	3	4	1860	0%	0%	N	N
Darwin Blvd.	Becker Rd. to Port St. Lucie Blvd.	2	0.2%	16	1	1	760	0%	0%	N	N
Turnpike	Martin Hwy. to Becker Rd.	4	0.4%	32	2	1	2940	0%	0%	N	N
	Becker Rd. to Port St. Lucie Blvd.	4	0.0%	0	0	0	2940	0%	0%	N	N
	Port St. Lucie Blvd. to Ft. Pierce (SR 70)	4	0.0%	0	0	0	2940	0%	0%	N	N
Bayshore Blvd.	Oakridge Blvd. to Port. St. Lucie Blvd.	2	0.0%	0	0	0	890	0%	0%	N	N
	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.7%	56	2	3	1860	0%	0%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	1.3%	104	4	6	1860	0%	0%	N	N
	Prima Vista Blvd. to Selvitz Rd.	2	1.1%	88	3	5	760	0%	1%	N	N
	Selvitz Rd. to St. James Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
Selvitz Rd.	Bayshore Blvd. to E/W 5	2	0.0%	0	0	0	760	0%	0%	N	N
	E/W 5 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway	2	0.0%	0	0	0	760	0%	0%	N	N
St. James Dr.	Bayshore Blvd. to E/W 5	4	1.0%	80	3	5	1860	0%	0%	N	N
	E/W 5 to Midway Rd.	4	0.0%	0	0	0	1860	0%	0%	N	N
25 th Street	N. of Midway	4	0.1%	8	0	0	1860	0%	0%	N	N
Airoso Blvd.	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.2%	16	1	1	1860	0%	0%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	2.1%	167	6	10	1860	0%	1%	N	N
	Prima Vista Blvd. to Floresta Dr.	4	1.0%	80	3	5	1860	0%	0%	N	N
	Floresta Dr. to St. James Blvd.	4	1.0%	80	3	5	1860	0%	0%	N	N
Southbend Blvd.	Becker Rd. to Oakridge Blvd.	2	0.6%	48	3	2	760	0%	0%	N	N
	Oakridge Blvd. to Port St. Lucie Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Floresta Dr.	Port. St. Lucie Blvd. to West Virginia Dr.	2	0.2%	16	1	1	890	0%	0%	N	N
	West Virginia Dr. to Prima Vista Blvd.	2	0.0%	0	0	0	890	0%	0%	N	N
	Prima Vista Blvd. to Airoso Blvd.	2	0.0%	0	0	0	890	0%	0%	N	N
Oleander Ave.	E/W 6 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
Midport Rd.	Port St. Lucie Blvd. to Lyngate Dr.	4	2.9%	231	9	14	1860	0%	1%	N	N
	Lyngate Dr. to West Virginia Dr.	4	0.9%	72	3	4	1860	0%	0%	N	N

TABLE TR-1

Western Annexation Study

2010 Western Grove Significant Impact

External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
High Meadows Ave.	CR 714 to Martin Downs Blvd.	2	0.7%	56	3	2	760	0%	0%	N	N
	Martin Downs Blvd. to Mapp Rd/Murphy Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
Gilson Rd.	Mapp Rd/Murphy Rd. to Becker Rd.	2	1.1%	88	5	3	760	1%	0%	N	N
US-1	Lennard Rd. to Port St. Lucie Blvd.	8	6.3%	502	19	31	3540	1%	1%	N	N
	Port. St. Lucie Blvd. to Tiffany Dr./Lyngate Dr.	6	0.8%	64	2	4	2790	0%	0%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	6	0.2%	16	1	1	2790	0%	0%	N	N
	West Virginia Dr. to Village Green Dr.	6	0.0%	0	0	0	2790	0%	0%	N	N
	Village Green Dr. to Savannah Club Blvd.	6	0.0%	0	0	0	2790	0%	0%	N	N
	Savannah Club Blvd. to St. Lucie West Blvd.	6	0.0%	0	0	0	2790	0%	0%	N	N
	St. Lucie West Blvd. to E/W 6	6	0.3%	24	1	1	2790	0%	0%	N	N
	E/W 6 to Midway Rd.	6	0.0%	0	0	0	2790	0%	0%	N	N
	N. of Midway	6	0.4%	32	1	2	2790	0%	0%	N	N
Lennard Rd.	US-1 to Tiffany Dr./Lyngate Dr.	4	0.3%	24	1	1	1620	0%	0%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	4	0.0%	0	0	0	1620	0%	0%	N	N
	West Virginia Dr. to Savannah Club Blvd.	4	0.0%	0	0	0	1620	0%	0%	N	N
	Savannah Club Blvd. to US-1	2	0.0%	0	0	0	760	0%	0%	N	N
SR 714/Martin Hwy	Range Line Rd. to I-95	2	0.1%	8	0	0	860	0%	0%	N	N
	I-95 to Port St. Lucie Blvd.	2	6.5%	518	20	32	860	2%	4%	N	N
	Port St. Lucie Blvd. to Turnpike	2	3.6%	287	11	18	860	1%	2%	N	N
SR 714/Martin Downs Blvd.	N. of FL. TPK Entrance to High Meadows Ave.	4	1.1%	88	3	5	1860	0%	0%	N	N
	E. of High Meadows Ave.	4	1.0%	80	3	5	1860	0%	0%	N	N
CR 714	Turnpike to High Meadows Ave.	2	3.1%	247	9	15	760	1%	2%	N	N
	E. of High Meadows Ave.	2	2.3%	183	7	11	760	1%	1%	N	N
Mapp Rd/Murphy Rd.	E. of High Meadows Ave.	2	0.4%	32	1	2	760	0%	0%	N	N
Becker Rd.	I-95 to Rosser Rd.	4	5.0%	398	15	25	1860	1%	1%	N	N
	Rosser Blvd. to Savona Blvd.	4	5.0%	398	15	25	1860	1%	1%	N	N
	Savona Blvd. to Port St. Lucie Blvd.	4	4.9%	390	15	24	1860	1%	1%	N	N
	Port St. Lucie Blvd. to Darwin Blvd.	4	2.4%	191	7	12	1860	0%	1%	N	N
	Darwin Blvd. to Turnpike	4	2.4%	191	7	12	1860	0%	1%	N	N
	Turnpike to Southbend Blvd.	2	1.7%	135	5	8	860	1%	1%	N	N
	Southbend Blvd. to Gilson Rd.	2	1.1%	88	3	5	860	0%	1%	N	N
Paar Dr.	Rosser Blvd. to Savona Blvd.	2	0.0%	0	0	0	860	0%	0%	N	N
	Savona Blvd. to Port St. Lucie Blvd.	2	0.0%	0	0	0	860	0%	0%	N	N
Gatlin Blvd.	West of N/S A	4	0.0%	0	0	0	1860	0%	0%	N	N
	N/S A to Community Blvd.	4	58.9%	4,690	177	293	1860	10%	16%	Y	Y
	Community Blvd. to Village Pkwy.	4	44.4%	3,536	133	221	1860	7%	12%	Y	Y
	Village Pkwy. to I-95	6	41.0%	3,265	123	204	2790	4%	7%	N	Y
	I-95 to Rosser Blvd.	6	19.5%	1,553	59	97	2790	2%	3%	N	N
	Rosser Blvd. to Savona Blvd.	6	15.3%	1,218	46	76	2790	2%	3%	N	N
	Savona Blvd. to Port St. Lucie Blvd.	6	14.2%	1,131	43	71	2790	2%	3%	N	N

TABLE TR-1

Western Annexation Study

2010 Western Grove Significant Impact

External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic NB/EB	Project Traffic SB/WB	Service Volume	Impact NB/EB	Impact SB/WB	Significant Impact NB/EB	Significant Impact SB/WB
Westmoreland Blvd.	Port St. Lucie Blvd. to US-1	2	0.6%	48	2	3	760	0%	0%	N	N
Oakridge Blvd.	Bayshore Blvd. to Southbend Blvd.	2	0.6%	48	2	3	760	0%	0%	N	N
Tiffany Dr/Lyngate Dr.	Midport Rd. to US-1	2	1.0%	80	3	5	760	0%	1%	N	N
	US-1 to Villagegreen Dr.	2	1.0%	80	3	5	760	0%	1%	N	N
	Villagegreen Dr. to Lennard Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
E/W XY	N/S A to Commerce Center Pkwy.	2	41.1%	3,273	123	204	760	16%	27%	Y	Y
	Community Blvd. to Village Pkwy.	2	31.1%	2,476	93	155	760	12%	20%	Y	Y
West Virginia Dr.	W. of Village Pkwy.	4	0.4%	32	2	1	1860	0%	0%	N	N
	Village Pkwy. to Commerce Center Pkwy.	4	35.3%	2,811	106	175	1860	6%	9%	Y	Y
	Commerce Center Pkwy. to I-95	6	31.2%	2,484	94	155	2790	3%	6%	N	Y
	I-95 to California Blvd.	6	10.5%	836	32	52	2790	1%	2%	N	N
	California Blvd. to Cashmere Rd.	6	5.7%	454	17	28	2790	1%	1%	N	N
	Cashmere Rd. to Bayshore Blvd.	6	4.6%	366	14	23	2790	1%	1%	N	N
	Bayshore Blvd. to Airoso Blvd.	6	2.5%	199	8	12	2790	0%	0%	N	N
	Airoso Blvd. to Floresta Dr.	6	0.2%	16	1	1	2790	0%	0%	N	N
St. Lucie W/ Prima Vista Blvd.	Commerce Center Pkwy. to I-95	4	0.8%	64	2	4	1800	0%	0%	N	N
	I-95 to NW Peacock Blvd.	6	6.9%	549	21	34	2710	1%	1%	N	N
	NW Peacock Blvd. to California Blvd.	4	2.5%	199	8	12	1800	0%	1%	N	N
	California Blvd. to Cashmere Rd.	4	2.5%	199	8	12	1800	0%	1%	N	N
	Cashmere Rd. to Bayshore Blvd.	6	0.7%	56	2	3	2710	0%	0%	N	N
	Bayshore Blvd. to Airoso Blvd.	4	0.1%	8	0	0	1800	0%	0%	N	N
	Airoso Blvd. to Floresta Dr.	4	0.9%	72	3	4	1800	0%	0%	N	N
	Floresta Dr. to US-1	4	0.9%	72	3	4	1800	0%	0%	N	N
Midway Rd.	W. of Eleven Mile Rd.	2	0.3%	24	1	1	860	0%	0%	N	N
	Eleven Mile Rd. to I-95	2	0.3%	24	1	1	860	0%	0%	N	N
	I-95 to Glades Cut-Off Rd.	4	4.1%	326	20	12	1860	1%	1%	N	N
	Glades Cut-Off Rd to Torino Pkwy	4	2.4%	191	7	12	1860	0%	1%	N	N
	Torino Pkwy to Selvitz Rd.	2	2.4%	191	7	12	860	1%	1%	N	N
	Selvitz Rd. to S. 25th St.	2	2.1%	167	6	10	860	1%	1%	N	N
	S. 25th St. to Sunrise Blvd.	2	1.7%	135	5	8	860	1%	1%	N	N
	Sunrise Blvd. to Oleander Ave.	2	1.7%	135	5	8	860	1%	1%	N	N
	Oleander Ave. to US-1	2	1.1%	88	3	5	860	0%	1%	N	N
	E. of US-1	2	0.2%	16	1	1	860	0%	0%	N	N

External Traffic	
IN	497
OUT	300
Daily	7,963

TABLE TR-2

Western Annexation Study

2015 Western Grove Significant Impact

External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic NB/EB	Project Traffic SB/WB	Service Volume	Impact NB/EB	Impact SB/WB	Significant Impact NB/EB	Significant Impact SB/WB
Range Line	Martin Hwy. to Becker Rd.	2	3.0%	809	44	34	810	5%	4%	Y	N
	Becker Rd. to E/W 4 (Paar Dr.)	2	3.4%	917	50	39	810	6%	5%	Y	N
	E/W 4 (Paar Dr.) to E/W 3	2	4.5%	1,214	67	51	810	8%	6%	Y	Y
	E/W 3 to E/W 1	2	5.0%	1,348	74	57	810	9%	7%	Y	Y
	E/W 1 to Gatlin Blvd.	2	5.4%	1,456	80	61	810	10%	8%	Y	Y
	Gatlin Blvd. to West Virginia Blvd.	2	1.2%	324	14	18	810	2%	2%	N	N
	West Virginia Blvd. to Glades Cut-Off Rd.	2	1.3%	351	19	15	810	2%	2%	N	N
Glades Cut-Off Rd.	Range Line / CR 609 to N/S A	2	0.2%	54	2	3	760	0%	0%	N	N
	N/S A to Commerce Center Pkwy.	2	5.4%	1,456	61	80	760	8%	11%	Y	Y
	Commerce Center Pkwy to Midway Rd.	2	0.1%	27	1	1	760	0%	0%	N	N
	N. of Midway Rd.	2	0.6%	162	7	9	760	1%	1%	N	N
N/S A	Gatlin Blvd. to E/W XY	2	14.8%	3,991	168	219	860	20%	25%	Y	Y
	E/W XY to West Virginia Blvd.	2	12.7%	3,425	145	188	860	17%	22%	Y	Y
	West Virginia Blvd. to Glades Cut-Off Rd.	2	5.1%	1,375	58	75	860	7%	9%	Y	Y
Community Blvd.	Gatlin Blvd. to E/W XY	2	1.2%	324	18	14	860	2%	2%	N	N
Commerce Center Pkwy.	West Virginia Blvd. to St. Lucie West Blvd.	4	1.6%	432	18	24	1860	1%	1%	N	N
	St. Lucie West Blvd. to Glades Cut-Off Rd.	2	0.2%	54	2	3	860	0%	0%	N	N
Village Pkwy.	Gatlin Blvd. to E/W XY	4	1.3%	351	19	15	1860	1%	1%	N	N
	E/W XY to West Virginia Blvd.	4	0.0%	0	0	0	1860	0%	0%	N	N
I-95	Martin Hwy. to Becker Rd.	6	10.4%	2,805	154	118	5410	3%	2%	N	N
	Becker Rd. to E/W 3	6	12.2%	3,290	181	139	5410	3%	3%	N	N
	E/W 3 to Gatlin Blvd.	6	6.6%	1,780	98	75	5410	2%	1%	N	N
	Gatlin Blvd. to West Virginia Blvd.	6	0.0%	0	0	0	5410	0%	0%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	6	9.0%	2,427	102	133	5410	2%	2%	N	N
	St. Lucie West Blvd. to Midway Rd.	6	6.7%	1,807	76	99	5410	1%	2%	N	N
NW Peacock Blvd. Loop	St. Lucie West Blvd. to California Blvd.	2	2.3%	620	26	34	760	3%	4%	N	N
	California Blvd. to Cashmere Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Rosser Blvd.	Becker Rd. to Paar Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Paar Dr. to E/W 3	2	0.0%	0	0	0	760	0%	0%	N	N
	E/W 3 to Gatlin Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
W. Torino Pkwy.	California Blvd. to E. Torino Pkwy.	2	0.0%	0	0	0	760	0%	0%	N	N
E Torino Pkwy.	NW Peacock Blvd. to Midway Rd.	2	0.1%	27	1	1	760	0%	0%	N	N
S Torino Pkwy.	California Blvd. to Cashmere Blvd.	2	0.3%	81	3	4	760	0%	1%	N	N
California Blvd.	Del Rio Blvd. to Savonna Blvd.	2	0.1%	27	1	1	760	0%	0%	N	N
	Savonna Blvd. to Del Rio Blvd.	2	1.1%	297	16	13	760	2%	2%	N	N
	Del Rio Blvd. to West Virginia Blvd.	2	1.1%	297	16	13	760	2%	2%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	2	2.2%	593	25	33	760	3%	4%	N	N
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.4%	108	5	6	760	1%	1%	N	N
	NW Peacock Blvd. Loop to W. Torino Pkwy.	2	0.3%	81	3	4	760	0%	1%	N	N
Savona Blvd.	Becker Rd. to Paar Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Paar Dr. to Gatlin Blvd.	2	0.9%	243	13	10	760	2%	1%	N	N
	Gatlin Blvd. to California Blvd.	2	0.2%	54	2	3	760	0%	0%	N	N

TABLE TR-2

Western Annexation Study
2015 Western Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Cashmere Blvd.	Del Rio Blvd. to West Virginia Blvd.	2	0.1%	27	1	1	760	0%	0%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	2	0.6%	162	7	9	760	1%	1%	N	N
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Del Rio Blvd.	Port St. Lucie Blvd. to California Blvd.	2	0.1%	27	1	1	760	0%	0%	N	N
	California Blvd. to Cashmere Blvd.	2	0.1%	27	1	1	760	0%	0%	N	N
	Cashmere Blvd. to California Blvd.	2	0.1%	27	1	1	760	0%	0%	N	N
Port St. Lucie Blvd.	Martin Hwy. to Becker Rd.	2	1.6%	432	24	18	890	3%	2%	N	N
	Becker Rd. to Paar Dr.	2	1.6%	432	24	18	890	3%	2%	N	N
	Paar Dr. to Darwin Blvd.	2	1.2%	324	18	14	890	2%	2%	N	N
	Darwin Blvd. to Gatlin Blvd.	4	1.4%	378	21	16	1860	1%	1%	N	N
	Gatlin Blvd. to Del Rio Blvd.	6	3.3%	890	49	38	2790	2%	1%	N	N
	Del Rio Blvd. to Bayshore Blvd.	6	2.5%	674	28	37	2790	1%	1%	N	N
	Bayshore Blvd. to Airoso Blvd.	6	2.0%	539	23	30	2790	1%	1%	N	N
	Airoso Blvd. to Southbend Blvd./Floresta Dr.	6	1.8%	485	20	27	2790	1%	1%	N	N
	Southbend Blvd./Floresta Dr. to Midport Rd.	6	1.5%	405	17	22	2790	1%	1%	N	N
	Midport Rd. to US-1	6	1.0%	270	11	15	2790	0%	1%	N	N
	US-1 to Lennard Rd.	4	0.4%	108	5	6	1860	0%	0%	N	N
Darwin Blvd.	Becker Rd. to Port St. Lucie Blvd.	2	0.2%	54	2	3	760	0%	0%	N	N
Turnpike	Martin Hwy. to Becker Rd.	4	0.4%	108	6	5	2940	0%	0%	N	N
	Becker Rd. to Port St. Lucie Blvd.	4	0.0%	0	0	0	2940	0%	0%	N	N
	Port St. Lucie Blvd. to Ft. Pierce (SR 70)	4	0.0%	0	0	0	2940	0%	0%	N	N
Bayshore Blvd.	Oakridge Blvd. to Port. St. Lucie Blvd.	2	0.6%	162	9	7	890	1%	1%	N	N
	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.3%	81	3	4	1860	0%	0%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.8%	216	9	12	1860	0%	1%	N	N
	Prima Vista Blvd. to Selvitz Rd.	2	0.6%	162	7	9	760	1%	1%	N	N
	Selvitz Rd. to St. James Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
Selvitz Rd.	Bayshore Blvd. to E/W 5	2	0.0%	0	0	0	760	0%	0%	N	N
	E/W 5 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway	2	0.0%	0	0	0	760	0%	0%	N	N
St. James Dr.	Bayshore Blvd. to E/W 5	4	0.5%	135	6	7	1860	0%	0%	N	N
	E/W 5 to Midway Rd.	4	0.0%	0	0	0	1860	0%	0%	N	N
25 th Street	N. of Midway	4	0.1%	27	1	1	1860	0%	0%	N	N
Airoso Blvd.	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.4%	108	5	6	1860	0%	0%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	1.4%	378	16	21	1860	1%	1%	N	N
	Prima Vista Blvd. to Floresta Dr.	4	0.5%	135	6	7	1860	0%	0%	N	N
	Floresta Dr. to St. James Blvd.	4	0.5%	135	6	7	1860	0%	0%	N	N
Southbend Blvd.	Becker Rd. to Oakridge Blvd.	2	0.6%	162	9	7	760	1%	1%	N	N
	Oakridge Blvd. to Port St. Lucie Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Floresta Dr.	Port. St. Lucie Blvd. to West Virginia Dr.	2	0.3%	81	3	4	890	0%	0%	N	N
	West Virginia Dr. to Prima Vista Blvd.	2	0.1%	27	1	1	890	0%	0%	N	N
	Prima Vista Blvd. to Airoso Blvd.	2	0.0%	0	0	0	890	0%	0%	N	N

TABLE TR-2

Western Annexation Study

2015 Western Grove Significant Impact

External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Oleander Ave.	E/W 6 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
Midport Rd.	Port St. Lucie Blvd. to Lyngate Dr.	4	0.1%	27	1	1	1860	0%	0%	N	N
	Lyngate Dr. to West Virginia Dr.	4	0.2%	54	2	3	1860	0%	0%	N	N
High Meadows Ave.	CR 714 to Martin Downs Blvd.	2	0.4%	108	6	5	760	1%	1%	N	N
	Martin Downs Blvd. to Mapp Rd/Murphy Rd.	2	0.1%	27	1	1	760	0%	0%	N	N
Gilson Rd.	Mapp Rd/Murphy Rd. to Becker Rd.	2	0.9%	243	13	10	760	2%	1%	N	N
US-1	Lennard Rd. to Port St. Lucie Blvd.	8	3.9%	1,052	44	58	3540	1%	2%	N	N
	Port. St. Lucie Blvd. to Tiffany Dr./Lyngate Dr.	6	4.2%	1,133	48	62	2790	2%	2%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	6	4.4%	1,187	50	65	2790	2%	2%	N	N
	West Virginia Dr. to Village Green Dr.	6	0.2%	54	2	3	2790	0%	0%	N	N
	Village Green Dr. to Savannah Club Blvd.	6	0.2%	54	2	3	2790	0%	0%	N	N
	Savannah Club Blvd. to St. Lucie West Blvd.	6	0.1%	27	1	1	2790	0%	0%	N	N
	St. Lucie West Blvd. to E/W 6	6	0.2%	54	2	3	2790	0%	0%	N	N
	E/W 6 to Midway Rd.	6	0.0%	0	0	0	2790	0%	0%	N	N
	N. of Midway	6	0.2%	54	2	3	2790	0%	0%	N	N
Lennard Rd.	US-1 to Tiffany Dr./Lyngate Dr.	4	0.1%	27	1	1	1620	0%	0%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	4	0.0%	0	0	0	1620	0%	0%	N	N
	West Virginia Dr. to Savannah Club Blvd.	4	0.0%	0	0	0	1620	0%	0%	N	N
	Savannah Club Blvd. to US-1	2	0.0%	0	0	0	760	0%	0%	N	N
SR 714/Martin Hwy	Range Line Rd. to I-95	2	0.1%	27	1	1	860	0%	0%	N	N
	I-95 to Port St. Lucie Blvd.	2	3.0%	809	34	44	860	4%	5%	N	Y
	Port St. Lucie Blvd. to Turnpike	2	1.3%	351	15	19	860	2%	2%	N	N
SR 714/Martin Downs Blvd.	N. of FL. TPK Entrance to High Meadows Ave.	4	0.3%	81	3	4	1860	0%	0%	N	N
	E. of High Meadows Ave.	4	0.3%	81	3	4	1860	0%	0%	N	N
CR 714	Turnpike to High Meadows Ave.	2	1.6%	432	18	24	760	2%	3%	N	N
	High Meadows Ave. to Berry Ave.	2	1.1%	297	13	16	760	2%	2%	N	N
Mapp Rd/Murphy Rd.	E. of High Meadows Ave.	2	0.3%	81	3	4	760	0%	1%	N	N
Becker Rd.	I-95 to Rosser Rd.	4	2.7%	728	31	40	1860	2%	2%	N	N
	Rosser Blvd. to Savona Blvd.	4	2.6%	701	30	38	1860	2%	2%	N	N
	Savona Blvd. to Port St. Lucie Blvd.	4	2.6%	701	30	38	1860	2%	2%	N	N
	Port St. Lucie Blvd. to Darwin Blvd.	4	2.7%	728	31	40	1860	2%	2%	N	N
	Darwin Blvd. to Turnpike	4	2.7%	728	31	40	1860	2%	2%	N	N
	Turnpike to Southbend Blvd.	2	2.0%	539	23	30	860	3%	3%	N	N
	Southbend Blvd. to Gilson Rd.	2	0.9%	243	10	13	860	1%	2%	N	N
Paar Dr.	Rosser Blvd. to Savona Blvd.	2	1.1%	297	13	16	860	2%	2%	N	N
	Savona Blvd. to Port St. Lucie Blvd.	2	1.1%	297	13	16	860	2%	2%	N	N
Gatlin Blvd.	Range Line Rd. to N/S A	4	29.0%	7,821	429	330	1860	23%	18%	Y	Y
	N/S A to Community Blvd.	4	33.0%	8,900	376	488	1860	20%	26%	Y	Y
	Community Blvd. to Village Pkwy.	4	25.0%	6,742	285	370	1860	15%	20%	Y	Y
	Village Pkwy. to I-95	6	20.6%	5,556	234	305	2790	8%	11%	Y	Y
	I-95 to Rosser Blvd.	6	5.8%	1,564	66	86	2790	2%	3%	N	N
	Rosser Blvd. to Savona Blvd.	6	5.8%	1,564	66	86	2790	2%	3%	N	N
	Savona Blvd. to Port St. Lucie Blvd.	6	4.7%	1,268	53	70	2790	2%	3%	N	N

TABLE TR-2

Western Annexation Study

2015 Western Grove Significant Impact

External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic NB/EB	Project Traffic SB/WB	Service Volume	Impact NB/EB	Impact SB/WB	Significant Impact NB/EB	Significant Impact SB/WB
Westmoreland Blvd.	Port St. Lucie Blvd. to US-1	2	0.4%	108	5	6	760	1%	1%	N	N
Oakridge Blvd.	Bayshore Blvd. to Southbend Blvd.	2	0.4%	108	5	6	760	1%	1%	N	N
Tiffany Dr/Lyngate Dr.	Midport Rd. to US-1	2	0.0%	0	0	0	760	0%	0%	N	N
	US-1 to Villagegreen Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Villagegreen Dr. to Lennard Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
E/W XY	N/S A to Community Blvd.	2	5.2%	1,402	59	77	760	8%	10%	Y	Y
	Commerce Center Parkway to Village Pkwy.	2	2.4%	647	27	36	760	4%	5%	N	N
West Virginia Dr.	Range Line Rd. to N/S A	4	23.4%	6,311	346	266	1620	21%	16%	Y	Y
	N/S A to Village Pkwy.	4	31.0%	8,360	459	353	1860	25%	19%	Y	Y
	Village Pkwy. to Commerce Center Pkwy.	4	25.2%	6,796	287	373	1860	15%	20%	Y	Y
	Commerce Center Pkwy. to I-95	6	23.5%	6,338	267	348	2790	10%	12%	Y	Y
	I-95 to California Blvd.	6	14.6%	3,937	166	216	2790	6%	8%	Y	Y
	California Blvd. to Cashmere Rd.	6	11.2%	3,021	127	166	2790	5%	6%	N	Y
	Cashmere Rd. to Bayshore Blvd.	6	10.5%	2,832	119	155	2790	4%	6%	N	Y
	Bayshore Blvd. to Airoso Blvd.	6	9.1%	2,454	104	135	2790	4%	5%	N	N
	Airoso Blvd. to Floresta Dr.	6	7.2%	1,942	82	107	2790	3%	4%	N	N
	Floresta Dr. to Midport Rd.	6	6.9%	1,861	79	102	2790	3%	4%	N	N
	Midport Rd. to US-1	6	6.5%	1,753	74	96	2790	3%	3%	N	N
	US-1 to Villagegreen Dr.	4	1.9%	512	22	28	1860	1%	2%	N	N
	Villagegreen Dr. to Lennard Rd.	4	1.7%	458	19	25	1860	1%	1%	N	N
St. Lucie W/ Prima Vista Blvd.	Commerce Center Pkwy. to I-95	4	1.6%	432	18	24	1800	1%	1%	N	N
	I-95 to NW Peacock Blvd.	6	3.8%	1,025	43	56	2710	2%	2%	N	N
	NW Peacock Blvd. to California Blvd.	4	0.5%	135	6	7	1800	0%	0%	N	N
	California Blvd. to Cashmere Rd.	4	1.4%	378	16	21	1800	1%	1%	N	N
	Cashmere Rd. to Bayshore Blvd.	6	0.0%	0	0	0	2710	0%	0%	N	N
	Bayshore Blvd. to Airoso Blvd.	4	0.0%	0	0	0	1800	0%	0%	N	N
	Airoso Blvd. to Floresta Dr.	4	0.7%	189	8	10	1800	0%	1%	N	N
	Floresta Dr. to US-1	4	0.5%	135	6	7	1800	0%	0%	N	N
Midway Rd.	W. of Eleven Mile Rd.	2	0.3%	81	4	3	860	0%	0%	N	N
	Eleven Mile Rd. to Commerce Center Pkwy.	2	0.5%	135	7	6	860	1%	1%	N	N
	Commerce Center Pkwy. to I-95	2	0.0%	0	0	0	860	0%	0%	N	N
	I-95 to Glades Cut-Off Rd.	4	1.7%	458	25	19	1860	1%	1%	N	N
	Glades Cut-Off Rd to Torino Pkwy	4	1.1%	297	13	16	1860	1%	1%	N	N
	Torino Pkwy to Selvitz Rd.	2	1.1%	297	13	16	860	2%	2%	N	N
	Selvitz Rd. to S. 25th St.	2	1.0%	270	11	15	860	1%	2%	N	N
	S. 25th St. to Sunrise Blvd.	2	0.8%	216	9	12	860	1%	1%	N	N
	Sunrise Blvd. to Oleander Ave.	2	0.7%	189	8	10	860	1%	1%	N	N
	Oleander Ave. to US-1	2	0.5%	135	6	7	860	1%	1%	N	N
	E. of US-1	2	0.1%	27	1	1	860	0%	0%	N	N

External Traffic	
IN	1,480
OUT	1,138
Daily	26,969

TABLE TR-3

Western Annexation Study
2020 Western Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Range Line	Martin Hwy. to Becker Rd.	2	2.6%	1,212	65	53	810	8%	7%	Y	Y
	Becker Rd. to E/W 4 (Paar Dr.)	2	2.3%	1,072	57	47	810	7%	6%	Y	Y
	E/W 4 (Paar Dr.) to E/W 3	2	2.8%	1,305	70	57	810	9%	7%	Y	Y
	E/W 3 to E/W 1	2	3.4%	1,585	85	69	810	10%	9%	Y	Y
	E/W 1 to Gatlin Blvd.	2	3.7%	1,725	92	76	810	11%	9%	Y	Y
	Gatlin Blvd. to West Virginia Blvd.	2	0.4%	186	8	10	810	1%	1%	N	N
	West Virginia Blvd. to Glades Cut-Off Rd.	2	0.9%	420	22	18	810	3%	2%	N	N
Glades Cut-Off Rd.	Range Line / CR 609 to N/S A	2	0.0%	0	0	0	760	0%	0%	N	N
	N/S A to Commerce Center Pkwy.	2	4.7%	2,191	96	117	760	13%	15%	Y	Y
	Commerce Center Pkwy to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway Rd.	2	0.4%	186	8	10	760	1%	1%	N	N
N/S A	Gatlin Blvd. to E/W XY	2	16.0%	7,459	327	399	860	38%	46%	Y	Y
	E/W XY to West Virginia Blvd.	2	13.8%	6,434	282	344	860	33%	40%	Y	Y
	West Virginia Blvd. to Glades Cut-Off Rd.	2	4.6%	2,145	94	115	860	11%	13%	Y	Y
Community Blvd.	Gatlin Blvd. to E/W XY	2	1.0%	466	25	20	860	3%	2%	N	N
Commerce Center Pkwy.	West Virginia Blvd. to St. Lucie West Blvd.	4	1.0%	466	20	25	1860	1%	1%	N	N
	St. Lucie West Blvd. to Glades Cut-Off Rd.	2	0.1%	47	2	2	860	0%	0%	N	N
Village Pkwy.	Gatlin Blvd. to E/W XY	4	1.3%	606	32	27	1860	2%	1%	N	N
	E/W XY to West Virginia Blvd.	4	0.0%	0	0	0	1860	0%	0%	N	N
I-95	Martin Hwy. to Becker Rd.	6	9.9%	4,615	247	202	5410	5%	4%	N	N
	Becker Rd. to E/W 3	6	9.4%	4,382	234	192	5410	4%	4%	N	N
	E/W 3 to Gatlin Blvd.	6	9.4%	4,382	234	192	5410	4%	4%	N	N
	Gatlin Blvd. to West Virginia Blvd.	6	0.0%	0	0	0	5410	0%	0%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	6	7.3%	3,403	149	182	5410	3%	3%	N	N
	St. Lucie West Blvd. to Midway Rd.	6	4.7%	2,191	96	117	5410	2%	2%	N	N
NW Peacock Blvd. Loop	St. Lucie West Blvd. to California Blvd.	2	2.0%	932	41	50	760	5%	7%	Y	Y
	California Blvd. to Cashmere Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Rosser Blvd.	Becker Rd. to Paar Dr.	4	0.8%	373	20	16	1620	1%	1%	N	N
	Paar Dr. to E/W 3	4	0.0%	0	0	0	1620	0%	0%	N	N
	E/W 3 to Gatlin Blvd.	4	0.0%	0	0	0	1620	0%	0%	N	N
W. Torino Pkwy.	California Blvd. to E. Torino Pkwy.	2	0.0%	0	0	0	760	0%	0%	N	N
E Torino Pkwy.	NW Peacock Blvd. to Midway Rd.	2	0.1%	47	2	2	760	0%	0%	N	N
S Torino Pkwy.	California Blvd. to Cashmere Blvd.	2	0.1%	47	2	2	760	0%	0%	N	N
California Blvd.	Del Rio Blvd. to Savonna Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	Savonna Blvd. to Del Rio Blvd.	2	1.0%	466	25	20	760	3%	3%	N	N
	Del Rio Blvd. to West Virginia Blvd.	2	1.1%	513	27	22	760	4%	3%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	2	1.5%	699	31	37	760	4%	5%	N	N
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.1%	47	2	2	760	0%	0%	N	N
	NW Peacock Blvd. Loop to W. Torino Pkwy.	2	0.2%	93	4	5	760	1%	1%	N	N
Savona Blvd.	Becker Rd. to Paar Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Paar Dr. to Gatlin Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	Gatlin Blvd. to California Blvd.	2	0.2%	93	4	5	760	1%	1%	N	N

TABLE TR-3

Western Annexation Study

2020 Western Grove Significant Impact

External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Cashmere Blvd.	Del Rio Blvd. to West Virginia Blvd.	2	0.1%	47	2	2	760	0%	0%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	2	0.1%	47	2	2	760	0%	0%	N	N
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Del Rio Blvd.	Port St. Lucie Blvd. to California Blvd.	2	0.1%	47	2	2	760	0%	0%	N	N
	California Blvd. to Cashmere Blvd.	2	0.1%	47	2	2	760	0%	0%	N	N
	Cashmere Blvd. to California Blvd.	2	0.1%	47	2	2	760	0%	0%	N	N
Port St. Lucie Blvd.	Martin Hwy. to Becker Rd.	4	1.4%	653	35	29	1860	2%	2%	N	N
	Becker Rd. to Paar Dr.	2	1.9%	886	47	39	890	5%	4%	Y	N
	Paar Dr. to Darwin Blvd.	2	0.6%	280	15	12	890	2%	1%	N	N
	Darwin Blvd. to Gatlin Blvd.	4	0.7%	326	17	14	1860	1%	1%	N	N
	Gatlin Blvd. to Del Rio Blvd.	6	2.2%	1,026	55	45	2790	2%	2%	N	N
	Del Rio Blvd. to Bayshore Blvd.	6	2.0%	932	41	50	2790	1%	2%	N	N
	Bayshore Blvd. to Airoso Blvd.	6	1.5%	699	31	37	2790	1%	1%	N	N
	Airoso Blvd. to Southbend Blvd./Floresta Dr.	6	1.6%	746	33	40	2790	1%	1%	N	N
	Southbend Blvd./Floresta Dr. to Midport Rd.	6	1.4%	653	29	35	2790	1%	1%	N	N
	Midport Rd. to US-1	6	1.0%	466	20	25	2790	1%	1%	N	N
	US-1 to Lennard Rd.	4	0.9%	420	18	22	1860	1%	1%	N	N
Darwin Blvd.	Becker Rd. to Port St. Lucie Blvd.	2	0.2%	93	4	5	760	1%	1%	N	N
Turnpike	Martin Hwy. to Becker Rd.	4	0.6%	280	15	12	2940	1%	0%	N	N
	Becker Rd. to Port St. Lucie Blvd.	4	0.0%	0	0	0	2940	0%	0%	N	N
	Port St. Lucie Blvd. to Ft. Pierce (SR 70)	4	0.0%	0	0	0	2940	0%	0%	N	N
Bayshore Blvd.	Oakridge Blvd. to Port. St. Lucie Blvd.	2	0.6%	280	15	12	890	2%	1%	N	N
	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.7%	326	14	17	1860	1%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.7%	326	14	17	1860	1%	1%	N	N
	Prima Vista Blvd. to Selvitz Rd.	2	0.5%	233	10	12	760	1%	2%	N	N
	Selvitz Rd. to St. James Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
Selvitz Rd.	Bayshore Blvd. to E/W 5	2	0.0%	0	0	0	760	0%	0%	N	N
	E/W 5 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway	2	0.0%	0	0	0	760	0%	0%	N	N
St. James Dr.	Bayshore Blvd. to E/W 5	4	0.4%	186	8	10	1860	0%	1%	N	N
	E/W 5 to Midway Rd.	4	0.0%	0	0	0	1860	0%	0%	N	N
25 th Street	N. of Midway	4	0.1%	47	2	2	1860	0%	0%	N	N
Airoso Blvd.	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.6%	280	12	15	1860	1%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	1.2%	559	25	30	1860	1%	2%	N	N
	Prima Vista Blvd. to Floresta Dr.	4	0.4%	186	8	10	1860	0%	1%	N	N
	Floresta Dr. to St. James Blvd.	4	0.4%	186	8	10	1860	0%	1%	N	N
Southbend Blvd.	Becker Rd. to Oakridge Blvd.	2	0.6%	280	15	12	760	2%	2%	N	N
	Oakridge Blvd. to Port St. Lucie Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Floresta Dr.	Port. St. Lucie Blvd. to West Virginia Dr.	2	0.3%	140	6	7	890	1%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	2	0.1%	47	2	2	890	0%	0%	N	N
	Prima Vista Blvd. to Airoso Blvd.	2	0.0%	0	0	0	890	0%	0%	N	N

TABLE TR-3

Western Annexation Study
2020 Western Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Oleander Ave.	E/W 6 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
Midport Rd.	Port St. Lucie Blvd. to Lyngate Dr.	4	0.2%	93	4	5	1860	0%	0%	N	N
	Lyngate Dr. to West Virginia Dr.	4	0.3%	140	6	7	1860	0%	0%	N	N
High Meadows Ave.	CR 714 to Martin Downs Blvd.	2	0.4%	186	10	8	760	1%	1%	N	N
	Martin Downs Blvd. to Mapp Rd/Murphy Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
Gilson Rd.	Mapp Rd/Murphy Rd. to Becker Rd.	2	0.7%	326	17	14	760	2%	2%	N	N
US-1	Lennard Rd. to Port St. Lucie Blvd.	8	2.6%	1,212	53	65	3540	1%	2%	N	N
	Port. St. Lucie Blvd. to Tiffany Dr./Lyngate Dr.	6	3.0%	1,399	61	75	2790	2%	3%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	6	2.9%	1,352	59	72	2790	2%	3%	N	N
	West Virginia Dr. to Village Green Dr.	6	0.2%	93	4	5	2790	0%	0%	N	N
	Village Green Dr. to Savannah Club Blvd.	6	0.2%	93	4	5	2790	0%	0%	N	N
	Savannah Club Blvd. to St. Lucie West Blvd.	6	0.1%	47	2	2	2790	0%	0%	N	N
	St. Lucie West Blvd. to E/W 6	6	0.1%	47	2	2	2790	0%	0%	N	N
	E/W 6 to Midway Rd.	6	0.0%	0	0	0	2790	0%	0%	N	N
	N. of Midway	6	0.1%	47	2	2	2790	0%	0%	N	N
Lennard Rd.	US-1 to Tiffany Dr./Lyngate Dr.	4	0.1%	47	2	2	1620	0%	0%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	4	0.0%	0	0	0	1620	0%	0%	N	N
	West Virginia Dr. to Savannah Club Blvd.	4	0.0%	0	0	0	1620	0%	0%	N	N
	Savannah Club Blvd. to US-1	2	0.0%	0	0	0	760	0%	0%	N	N
SR 714/Martin Hwy	Range Line Rd. to I-95	2	0.0%	0	0	0	860	0%	0%	N	N
	I-95 to Port St. Lucie Blvd.	2	2.1%	979	43	52	860	5%	6%	Y	Y
	Port St. Lucie Blvd. to Turnpike	4	1.0%	466	20	25	1860	1%	1%	N	N
SR 714/Martin Downs Blvd.	N. of FL. TPK Entrance to High Meadows Ave.	4	0.3%	140	6	7	1860	0%	0%	N	N
	E. of High Meadows Ave.	4	0.2%	93	4	5	1860	0%	0%	N	N
CR 714	Turnpike to High Meadows Ave.	4	1.4%	653	29	35	1620	2%	2%	N	N
	High Meadows Ave. to Berry Ave.	4	1.0%	466	20	25	1620	1%	2%	N	N
Mapp Rd/Murphy Rd.	E. of High Meadows Ave.	2	0.3%	140	6	7	760	1%	1%	N	N
Becker Rd.	I-95 to Rosser Rd.	4	2.8%	1,305	57	70	1860	3%	4%	N	N
	Rosser Blvd. to Savona Blvd.	4	2.0%	932	41	50	1860	2%	3%	N	N
	Savona Blvd. to Port St. Lucie Blvd.	4	2.0%	932	41	50	1860	2%	3%	N	N
	Port St. Lucie Blvd. to Darwin Blvd.	4	2.5%	1,166	51	62	1860	3%	3%	N	N
	Darwin Blvd. to Turnpike	4	2.5%	1,166	51	62	1860	3%	3%	N	N
	Turnpike to Southbend Blvd.	4	1.5%	699	31	37	1860	2%	2%	N	N
	Southbend Blvd. to Gilson Rd.	2	0.7%	326	14	17	860	2%	2%	N	N
Paar Dr.	Rosser Blvd. to Savona Blvd.	2	2.1%	979	43	52	860	5%	6%	Y	Y
	Savona Blvd. to Port St. Lucie Blvd.	2	2.0%	932	41	50	860	5%	6%	N	Y
Gatlin Blvd.	Range Line Rd. to N/S A	4	25.8%	12,028	643	527	1860	35%	28%	Y	Y
	N/S A to Community Blvd.	4	29.5%	13,753	603	735	1860	32%	40%	Y	Y
	Community Blvd. to Village Pkwy.	4	22.7%	10,583	464	566	1860	25%	30%	Y	Y
	Village Pkwy. to I-95	8	15.3%	7,133	313	381	3540	9%	11%	Y	Y
	I-95 to Rosser Blvd.	6	3.6%	1,678	74	90	2790	3%	3%	N	N
	Rosser Blvd. to Savona Blvd.	6	3.6%	1,678	74	90	2790	3%	3%	N	N
	Savona Blvd. to Port St. Lucie Blvd.	6	3.3%	1,538	67	82	2790	2%	3%	N	N

TABLE TR-3

Western Annexation Study

2020 Western Grove Significant Impact

External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic NB/EB	Project Traffic SB/WB	Service Volume	Impact NB/EB	Impact SB/WB	Significant Impact NB/EB	Significant Impact SB/WB
Westmoreland Blvd.	Port St. Lucie Blvd. to US-1	2	0.1%	47	2	2	760	0%	0%	N	N
Oakridge Blvd.	Bayshore Blvd. to Southbend Blvd.	2	0.9%	420	18	22	760	2%	3%	N	N
Tiffany Dr/Lyngate Dr.	Midport Rd. to US-1	2	0.1%	47	2	2	760	0%	0%	N	N
	US-1 to Villagegreen Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Villagegreen Dr. to Lennard Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
E/W XY	N/S A to Community Blvd.	2	4.9%	2,284	100	122	760	13%	16%	Y	Y
	Community Blvd. to Village Pkwy.	2	2.5%	1,166	51	62	760	7%	8%	Y	Y
West Virginia Dr.	Range Line Rd. to N/S A	4	17.0%	7,925	424	347	1620	26%	21%	Y	Y
	N/S A to Village Pkwy.	4	25.9%	12,075	646	529	1860	35%	28%	Y	Y
	Village Pkwy. to Commerce Center Pkwy.	6	20.0%	9,324	409	499	2790	15%	18%	Y	Y
	Commerce Center Pkwy. to I-95	6	19.0%	8,858	388	474	2790	14%	17%	Y	Y
	I-95 to California Blvd.	6	11.8%	5,501	241	294	2790	9%	11%	Y	Y
	California Blvd. to Cashmere Rd.	6	9.3%	4,336	190	232	2790	7%	8%	Y	Y
	Cashmere Rd. to Bayshore Blvd.	6	8.7%	4,056	178	217	2790	6%	8%	Y	Y
	Bayshore Blvd. to Airoso Blvd.	6	7.2%	3,357	147	179	2790	5%	6%	Y	Y
	Airoso Blvd. to Floresta Dr.	6	5.4%	2,517	110	135	2790	4%	5%	N	N
	Floresta Dr. to Midport Rd.	6	5.0%	2,331	102	125	2790	4%	4%	N	N
	Midport Rd. to US-1	6	4.6%	2,145	94	115	2790	3%	4%	N	N
	US-1 to Villagegreen Dr.	4	1.2%	559	25	30	1860	1%	2%	N	N
	Villagegreen Dr. to Lennard Rd.	4	1.1%	513	22	27	1860	1%	1%	N	N
St. Lucie W/ Prima Vista Blvd.	Commerce Center Pkwy. to I-95	4	1.0%	466	20	25	1800	1%	1%	N	N
	I-95 to NW Peacock Blvd.	6	3.4%	1,585	69	85	2710	3%	3%	N	N
	NW Peacock Blvd. to California Blvd.	4	0.9%	420	18	22	1800	1%	1%	N	N
	California Blvd. to Cashmere Rd.	4	1.2%	559	25	30	1800	1%	2%	N	N
	Cashmere Rd. to Bayshore Blvd.	6	0.4%	186	8	10	2710	0%	0%	N	N
	Bayshore Blvd. to Airoso Blvd.	4	0.0%	0	0	0	1800	0%	0%	N	N
	Airoso Blvd. to Floresta Dr.	4	0.9%	420	18	22	1800	1%	1%	N	N
	Floresta Dr. to US-1	4	0.5%	233	10	12	1800	1%	1%	N	N
Midway Rd.	W. of Eleven Mile Rd.	2	0.3%	140	7	6	860	1%	1%	N	N
	Eleven Mile Rd. to Commerce Center Pkwy.	2	0.4%	186	10	8	860	1%	1%	N	N
	Commerce Center Pkwy. to I-95	2	0.0%	0	0	0	860	0%	0%	N	N
	I-95 to Glades Cut-Off Rd.	4	0.9%	420	22	18	1860	1%	1%	N	N
	Glades Cut-Off Rd to Torino Pkwy	4	1.0%	466	20	25	1860	1%	1%	N	N
	Torino Pkwy to Selvitz Rd.	4	1.0%	466	20	25	1860	1%	1%	N	N
	Selvitz Rd. to S. 25th St.	2	0.8%	373	16	20	860	2%	2%	N	N
	S. 25th St. to Sunrise Blvd.	2	0.7%	326	14	17	860	2%	2%	N	N
	Sunrise Blvd. to Oleander Ave.	2	0.9%	420	18	22	860	2%	3%	N	N
	Oleander Ave. to US-1	2	0.4%	186	8	10	860	1%	1%	N	N
	E. of US-1	2	0.1%	47	2	2	860	0%	0%	N	N

External Traffic	
IN	2,493
OUT	2,044
Daily	46,620

TABLE TR-4

Western Annexation Study

2025 Western Grove Significant Impact

External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Range Line	Martin Hwy. to Becker Rd.	2	2.8%	1,315	128	70	810	16%	9%	Y	Y
	Becker Rd. to E/W 4 (Paar Dr.)	2	2.3%	1,080	105	58	810	13%	7%	Y	Y
	E/W 4 (Paar Dr.) to E/W 3	2	2.7%	1,268	123	68	810	15%	8%	Y	Y
	E/W 3 to E/W 1	2	3.3%	1,550	151	83	810	19%	10%	Y	Y
	E/W 1 to Gatlin Blvd.	2	3.6%	1,691	165	90	810	20%	11%	Y	Y
	Gatlin Blvd. to West Virginia Blvd.	2	0.5%	235	13	23	810	2%	3%	N	N
	West Virginia Blvd. to Glades Cut-Off Rd.	2	1.1%	517	50	28	810	6%	3%	Y	N
Glades Cut-Off Rd.	Range Line / CR 609 to N/S A	2	0.1%	47	3	5	760	0%	1%	N	N
	N/S A to Commerce Center Pkwy.	2	4.7%	2,208	118	215	760	16%	28%	Y	Y
	Commerce Center Pkwy to Midway Rd.	2	1.2%	564	30	55	760	4%	7%	N	Y
	N. of Midway Rd.	2	0.5%	235	13	23	760	2%	3%	N	N
N/S A	Gatlin Blvd. to E/W XY	4	16.0%	7,516	402	731	1860	22%	39%	Y	Y
	E/W XY to West Virginia Blvd.	4	13.5%	6,342	339	617	1860	18%	33%	Y	Y
	West Virginia Blvd. to Glades Cut-Off Rd.	2	4.7%	2,208	118	215	860	14%	25%	Y	Y
Community Blvd.	Gatlin Blvd. to E/W XY	2	0.9%	423	41	23	860	5%	3%	N	N
Commerce Center Pkwy.	West Virginia Blvd. to St. Lucie West Blvd.	4	1.4%	658	35	64	1860	2%	3%	N	N
	St. Lucie West Blvd. to Glades Cut-Off Rd.	2	0.1%	47	3	5	860	0%	1%	N	N
Village Pkwy.	Gatlin Blvd. to E/W XY	6	1.1%	517	50	28	2790	2%	1%	N	N
	E/W XY to West Virginia Blvd.	4	0.0%	0	0	0	1860	0%	0%	N	N
I-95	Martin Hwy. to Becker Rd.	6	9.5%	4,463	434	238	5410	8%	4%	Y	N
	Becker Rd. to E/W 3	6	9.6%	4,510	439	241	5410	8%	4%	Y	N
	E/W 3 to Gatlin Blvd.	6	7.6%	3,570	347	191	5410	6%	4%	Y	N
	Gatlin Blvd. to West Virginia Blvd.	6	0.0%	0	0	0	5410	0%	0%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	6	5.8%	2,725	146	265	5410	3%	5%	N	N
	St. Lucie West Blvd. to Midway Rd.	6	4.1%	1,926	103	187	5410	2%	3%	N	N
NW Peacock Blvd. Loop	St. Lucie West Blvd. to California Blvd.	2	1.9%	893	48	87	760	6%	11%	Y	Y
	California Blvd. to Cashmere Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Rosser Blvd.	Becker Rd. to Paar Dr.	4	0.2%	94	9	5	1620	1%	0%	N	N
	Paar Dr. to E/W 3	4	0.0%	0	0	0	1620	0%	0%	N	N
	E/W 3 to Gatlin Blvd.	4	0.0%	0	0	0	1620	0%	0%	N	N
W. Torino Pkwy.	California Blvd. to E. Torino Pkwy.	2	0.0%	0	0	0	760	0%	0%	N	N
E Torino Pkwy.	NW Peacock Blvd. to Midway Rd.	2	0.2%	94	5	9	760	1%	1%	N	N
S Torino Pkwy.	California Blvd. to Cashmere Blvd.	2	0.3%	141	8	14	760	1%	2%	N	N
California Blvd.	Del Rio Blvd. to Savonna Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	Savonna Blvd. to Del Rio Blvd.	2	0.5%	235	23	13	760	3%	2%	N	N
	Del Rio Blvd. to West Virginia Blvd.	2	0.6%	282	27	15	760	4%	2%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	4	1.9%	893	48	87	1620	3%	5%	N	Y
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.3%	141	8	14	760	1%	2%	N	N
	NW Peacock Blvd. Loop to W. Torino Pkwy.	2	0.3%	141	8	14	760	1%	2%	N	N
Savona Blvd.	Becker Rd. to Paar Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Paar Dr. to Gatlin Blvd.	2	0.8%	376	37	20	760	5%	3%	N	N
	Gatlin Blvd. to California Blvd.	2	0.2%	94	5	9	760	1%	1%	N	N
Cashmere Blvd.	Del Rio Blvd. to West Virginia Blvd.	2	0.1%	47	3	5	760	0%	1%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	2	0.5%	235	13	23	760	2%	3%	N	N
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N

TABLE TR-4

Western Annexation Study
2025 Western Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Del Rio Blvd.	Port St. Lucie Blvd. to California Blvd.	2	0.1%	47	3	5	760	0%	1%	N	N
	California Blvd. to Cashmere Blvd.	2	0.1%	47	3	5	760	0%	1%	N	N
	Cashmere Blvd. to California Blvd.	2	0.1%	47	3	5	760	0%	1%	N	N
Port St. Lucie Blvd.	Martin Hwy. to Becker Rd.	4	1.2%	564	55	30	1860	3%	2%	N	N
	Becker Rd. to Paar Dr.	2	2.2%	1,033	101	55	890	11%	6%	Y	Y
	Paar Dr. to Darwin Blvd.	2	0.6%	282	27	15	890	3%	2%	N	N
	Darwin Blvd. to Gatlin Blvd.	4	0.7%	329	32	18	1860	2%	1%	N	N
	Gatlin Blvd. to Del Rio Blvd.	6	3.0%	1,409	137	75	2790	5%	3%	N	N
	Del Rio Blvd. to Bayshore Blvd.	6	2.3%	1,080	58	105	2790	2%	4%	N	N
	Bayshore Blvd. to Airoso Blvd.	6	1.6%	752	40	73	2790	1%	3%	N	N
	Airoso Blvd. to Southbend Blvd./Floresta Dr.	6	1.6%	752	40	73	2790	1%	3%	N	N
	Southbend Blvd./Floresta Dr. to Midport Rd.	6	1.3%	611	33	59	2790	1%	2%	N	N
	Midport Rd. to US-1	6	0.9%	423	23	41	2790	1%	1%	N	N
	US-1 to Lennard Rd.	4	0.5%	235	13	23	1860	1%	1%	N	N
Darwin Blvd.	Becker Rd. to Port St. Lucie Blvd.	2	0.2%	94	5	9	760	1%	1%	N	N
Turnpike	Martin Hwy. to Becker Rd.	4	0.5%	235	23	13	2940	1%	0%	N	N
	Becker Rd. to Port St. Lucie Blvd.	4	0.0%	0	0	0	2940	0%	0%	N	N
	Port St. Lucie Blvd. to Ft. Pierce (SR 70)	4	0.0%	0	0	0	2940	0%	0%	N	N
Bayshore Blvd.	Oakridge Blvd. to Port. St. Lucie Blvd.	4	0.7%	329	32	18	1860	2%	1%	N	N
	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.6%	282	15	27	1860	1%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.7%	329	18	32	1860	1%	2%	N	N
	Prima Vista Blvd. to Selvitz Rd.	2	0.5%	235	13	23	760	2%	3%	N	N
	Selvitz Rd. to St. James Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
Selvitz Rd.	Bayshore Blvd. to E/W 5	2	0.0%	0	0	0	760	0%	0%	N	N
	E/W 5 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway	2	0.0%	0	0	0	760	0%	0%	N	N
St. James Dr.	Bayshore Blvd. to E/W 5	4	0.5%	235	13	23	1860	1%	1%	N	N
	E/W 5 to Midway Rd.	4	0.0%	0	0	0	1860	0%	0%	N	N
25 th Street	N. of Midway	4	0.0%	0	0	0	1860	0%	0%	N	N
Airoso Blvd.	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.6%	282	15	27	1860	1%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	1.3%	611	33	59	1860	2%	3%	N	N
	Prima Vista Blvd. to Floresta Dr.	4	0.5%	235	13	23	1860	1%	1%	N	N
	Floresta Dr. to St. James Blvd.	4	0.5%	235	13	23	1860	1%	1%	N	N
Southbend Blvd.	Becker Rd. to Oakridge Blvd.	2	0.7%	329	32	18	760	4%	2%	N	N
	Oakridge Blvd. to Port St. Lucie Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Floresta Dr.	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.3%	141	8	14	1860	0%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.1%	47	3	5	1860	0%	0%	N	N
	Prima Vista Blvd. to Airoso Blvd.	4	0.0%	0	0	0	1860	0%	0%	N	N
Oleander Ave.	E/W 6 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
Midport Rd.	Port St. Lucie Blvd. to Lyngate Dr.	4	0.2%	94	5	9	1860	0%	0%	N	N
	Lyngate Dr. to West Virginia Dr.	4	0.2%	94	5	9	1860	0%	0%	N	N
High Meadows Ave.	CR 714 to Martin Downs Blvd.	2	0.3%	141	14	8	760	2%	1%	N	N
	Martin Downs Blvd. to Mapp Rd/Murphy Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
Gilson Rd.	Mapp Rd/Murphy Rd. to Becker Rd.	2	0.6%	282	27	15	760	4%	2%	N	N

TABLE TR-4

Western Annexation Study
2025 Western Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
US-1	Lennard Rd. to Port St. Lucie Blvd.	8	2.4%	1,127	60	110	3540	2%	3%	N	N
	Port. St. Lucie Blvd. to Tiffany Dr./Lyngate Dr.	6	2.6%	1,221	65	119	2790	2%	4%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	6	2.6%	1,221	65	119	2790	2%	4%	N	N
	West Virginia Dr. to Village Green Dr.	6	0.2%	94	5	9	2790	0%	0%	N	N
	Village Green Dr. to Savannah Club Blvd.	6	0.1%	47	3	5	2790	0%	0%	N	N
	Savannah Club Blvd. to St. Lucie West Blvd.	6	0.1%	47	3	5	2790	0%	0%	N	N
	St. Lucie West Blvd. to E/W 6	6	0.1%	47	3	5	2790	0%	0%	N	N
	E/W 6 to Midway Rd.	6	0.1%	47	3	5	2790	0%	0%	N	N
	N. of Midway	6	0.1%	47	3	5	2790	0%	0%	N	N
Lennard Rd.	US-1 to Tiffany Dr./Lyngate Dr.	4	0.1%	47	3	5	1620	0%	0%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	4	0.1%	47	3	5	1620	0%	0%	N	N
	West Virginia Dr. to Savannah Club Blvd.	4	0.0%	0	0	0	1620	0%	0%	N	N
	Savannah Club Blvd. to US-1	2	0.0%	0	0	0	760	0%	0%	N	N
SR 714/Martin Hwy	Range Line Rd. to I-95	2	0.0%	0	0	0	860	0%	0%	N	N
	I-95 to Port St. Lucie Blvd.	2	1.8%	846	45	82	860	5%	10%	Y	Y
	Port St. Lucie Blvd. to Turnpike	4	0.8%	376	20	37	1860	1%	2%	N	N
SR 714/Martin Downs Blvd.	N. of FL. TPK Entrance to High Meadows Ave.	4	0.3%	141	8	14	1860	0%	1%	N	N
	E. of High Meadows Ave.	4	0.2%	94	5	9	1860	0%	0%	N	N
CR 714	Turnpike to High Meadows Ave.	4	1.1%	517	28	50	1620	2%	3%	N	N
	High Meadows Ave. to Berry Ave.	4	0.8%	376	20	37	1620	1%	2%	N	N
Mapp Rd/Murphy Rd.	E. of High Meadows Ave.	2	0.2%	94	5	9	760	1%	1%	N	N
Becker Rd.	I-95 to Rosser Rd.	6	1.4%	658	35	64	2790	1%	2%	N	N
	Rosser Blvd. to Savona Blvd.	4	1.1%	517	28	50	1860	2%	3%	N	N
	Savona Blvd. to Port St. Lucie Blvd.	4	1.1%	517	28	50	1860	2%	3%	N	N
	Port St. Lucie Blvd. to Darwin Blvd.	4	2.1%	986	53	96	1860	3%	5%	N	Y
	Darwin Blvd. to Turnpike	4	2.1%	986	53	96	1860	3%	5%	N	Y
	Turnpike to Southbend Blvd.	4	1.3%	611	33	59	1860	2%	3%	N	N
	Southbend Blvd. to Gilson Rd.	4	0.9%	423	23	41	1860	1%	2%	N	N
Paar Dr.	Rosser Blvd. to Savona Blvd.	4	2.4%	1,127	60	110	1860	3%	6%	N	Y
	Savona Blvd. to Port St. Lucie Blvd.	4	2.3%	1,080	58	105	1860	3%	6%	N	Y
Gatlin Blvd.	Range Line Rd. to N/S A	4	24.7%	11,603	1,129	620	1860	61%	33%	Y	Y
	N/S A to Community Blvd.	4	31.0%	14,562	778	1,417	1860	42%	76%	Y	Y
	Community Blvd. to Village Pkwy.	4	22.2%	10,428	557	1,015	1860	30%	55%	Y	Y
	Village Pkwy. to I-95	8	14.4%	6,764	361	658	3540	10%	19%	Y	Y
	I-95 to Rosser Blvd.	6	6.9%	3,241	173	315	2790	6%	11%	Y	Y
	Rosser Blvd. to Savona Blvd.	6	4.7%	2,208	118	215	2790	4%	8%	N	Y
	Savona Blvd. to Port St. Lucie Blvd.	6	3.7%	1,738	93	169	2790	3%	6%	N	Y
Westmoreland Blvd.	Port St. Lucie Blvd. to US-1	2	0.3%	141	8	14	760	1%	2%	N	N
Oakridge Blvd.	Bayshore Blvd. to Southbend Blvd.	4	0.7%	329	18	32	1620	1%	2%	N	N
Tiffany Dr/Lyngate Dr.	Midport Rd. to US-1	2	0.0%	0	0	0	760	0%	0%	N	N
	US-1 to Villagegreen Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Villagegreen Dr. to Lennard Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
E/W XY	N/S A to Community Blvd.	2	4.9%	2,302	123	224	760	16%	29%	Y	Y
	Commerce Center Parkway to Village Pkwy.	4	2.5%	1,174	63	114	1620	4%	7%	N	Y

TABLE TR-4

Western Annexation Study
2025 Western Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic NB/EB	Project Traffic SB/WB	Service Volume	Impact NB/EB	Impact SB/WB	Significant Impact NB/EB	Significant Impact SB/WB
West Virginia Dr.	Range Line Rd. to N/S A	4	16.8%	7,892	768	422	1620	47%	26%	Y	Y
	N/S A to Village Pkwy.	4	25.4%	11,932	1,161	638	1860	62%	34%	Y	Y
	Village Pkwy. to Commerce Center Pkwy.	6	18.6%	8,737	467	850	2790	17%	30%	Y	Y
	Commerce Center Pkwy. to I-95	6	17.2%	8,080	432	786	2790	15%	28%	Y	Y
	I-95 to California Blvd.	6	11.5%	5,402	289	526	2790	10%	19%	Y	Y
	California Blvd. to Cashmere Rd.	6	8.9%	4,181	223	407	2790	8%	15%	Y	Y
	Cashmere Rd. to Bayshore Blvd.	6	8.4%	3,946	211	384	2790	8%	14%	Y	Y
	Bayshore Blvd. to Airoso Blvd.	6	7.0%	3,288	176	320	2790	6%	11%	Y	Y
	Airoso Blvd. to Floresta Dr.	6	5.1%	2,396	128	233	2790	5%	8%	N	Y
	Floresta Dr. to Midport Rd.	6	4.7%	2,208	118	215	2790	4%	8%	N	Y
	Midport Rd. to US-1	6	4.3%	2,020	108	197	2790	4%	7%	N	Y
	US-1 to Villagegreen Dr.	4	1.2%	564	30	55	1860	2%	3%	N	N
	Villagegreen Dr. to Lennard Rd.	4	1.1%	517	28	50	1860	2%	3%	N	N
St. Lucie W/ Prima Vista Blvd.	Commerce Center Pkwy. to I-95	4	1.5%	705	38	69	1800	2%	4%	N	N
	I-95 to NW Peacock Blvd.	6	3.0%	1,409	75	137	2710	3%	5%	N	Y
	NW Peacock Blvd. to California Blvd.	6	1.0%	470	25	46	2710	1%	2%	N	N
	California Blvd. to Cashmere Rd.	4	1.2%	564	30	55	1800	2%	3%	N	N
	Cashmere Rd. to Bayshore Blvd.	6	0.4%	188	10	18	2710	0%	1%	N	N
	Bayshore Blvd. to Airoso Blvd.	4	0.0%	0	0	0	1800	0%	0%	N	N
	Airoso Blvd. to Floresta Dr.	4	0.9%	423	23	41	1800	1%	2%	N	N
	Floresta Dr. to US-1	4	0.5%	235	13	23	1800	1%	1%	N	N
Midway Rd.	W. of Eleven Mile Rd.	2	0.4%	188	18	10	860	2%	1%	N	N
	Eleven Mile Rd. to Commerce Center Pkwy.	2	0.5%	235	23	13	860	3%	2%	N	N
	Commerce Center Pkwy. to I-95	2	0.0%	0	0	0	860	0%	0%	N	N
	I-95 to Glades Cut-Off Rd.	4	0.4%	188	18	10	1860	1%	1%	N	N
	Glades Cut-Off Rd to Torino Pkwy	4	1.0%	470	25	46	1860	1%	2%	N	N
	Torino Pkwy to Selvitz Rd.	4	1.0%	470	25	46	1860	1%	2%	N	N
	Selvitz Rd. to S. 25th St.	4	0.8%	376	20	37	1860	1%	2%	N	N
	S. 25th St. to Sunrise Blvd.	2	0.7%	329	18	32	860	2%	4%	N	N
	Sunrise Blvd. to Oleander Ave.	2	0.9%	423	23	41	860	3%	5%	N	N
	Oleander Ave. to US-1	2	0.4%	188	10	18	860	1%	2%	N	N
	E. of US-1	2	0.2%	94	5	9	860	1%	1%	N	N

External Traffic	
IN	4,571
OUT	2,510
Daily	46,975

TABLE TR-5

Western Annexation Study - Phase I

Total Peak Hour Directional Traffic - External Roadway Network

Roadway	Link	Number of Lanes		2004/2005 Traffic		Growth Rate	2010 Background		Project		2010 Total		Service Volume	Meet LOS?	Recommended Improvements
				NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
Range Line	Martin Hwy. to Becker Rd.	2		109	77	1.0%	116	81	285	242	401	323	810	YES	-
	Becker Rd. to E/W 3	2		109	77	1.0%	116	81	68	79	184	160	810	YES	-
	E/W 3 to Glades Cut-Off Rd.	2		109	77	1.0%	116	81	68	79	184	160	810	YES	-
N/S A	Gatlin to E/W XY	2	**	-	-	-	0	0	166	268	166	268	860	YES	-
Community Blvd.	Gatlin Blvd. to E/W XY	2	**	-	-	-	0	0	145	171	145	171	860	YES	-
Village Pkwy.	Gatlin Blvd. to E/W XY	4	**	-	-	-	772	632	209	261	981	893	1,860	YES	-
	E/W XY to West Virginia Blvd.	4	**	-	-	-	818	669	240	339	1,058	1,008	1,860	YES	-
I-95	Gatlin Blvd. to West Virginia Blvd.	6		1,952	1,988	1.0%	2,072	2,110	606	722	2,678	2,832	5,410	YES	-
	West Virginia Blvd. to St. Lucie West Blvd.	6		1,952	1,988	1.0%	2,072	2,110	579	721	2,651	2,831	5,410	YES	-
NW Peacock Blvd. Loop	St. Lucie West Blvd. to California Blvd.	2	*	337	231	1.0%	354	243	126	158	480	401	760	YES	-
Rosser Blvd.	Becker Rd. to Paar Dr.	2	*	250	385	2.0%	276	425	165	191	441	616	760	YES	-
	Paar Dr. to Gatlin Blvd.	2	*	250	385	2.0%	276	425	86	101	362	526	760	YES	-
Port St. Lucie Blvd.	Martin Hwy. to Becker Rd.	2	**	-	-	-	501	410	175	147	676	557	890	YES	-
	Paar Dr. to Darwin Blvd.	2		214	120	3.5%	263	148	125	132	388	280	890	YES	-
	Darwin Blvd. to Gatlin Blvd.	4		790	834	3.5%	970	1,025	126	130	1,096	1,155	1,860	YES	-
	Gatlin Blvd. to Del Rio Blvd.	6		1,295	1,762	0.0%	1,295	1,762	346	373	1,641	2,135	2,790	YES	-
	Del Rio Blvd. to Bayshore Blvd.	6		1,467	1,989	0.0%	1,467	1,989	287	359	1,754	2,348	2,790	YES	-
SR 714/Martin Hwy	Port St. Lucie Blvd. to Turnpike	2		151	187	5.0%	202	250	92	115	294	365	860	YES	-
Becker Rd.	I-95 to Rosser Rd.	4		143	390	5.5%	197	537	541	638	738	1,175	1,860	YES	-
	Rosser Blvd. to Savona Blvd.	4		143	390	5.5%	197	537	377	447	574	984	1,860	YES	-
	Savona Blvd. to Port St. Lucie Blvd.	4		143	390	5.5%	197	537	313	373	510	910	1,860	YES	-
	Turnpike to Southbend Blvd.	2		143	390	10.0%	253	690	124	146	377	836	860	YES	-
Paar Dr.	Rosser Blvd. to Savona Blvd.	2	*	115	82	1.0%	121	86	79	92	200	178	860	YES	-
	Savona Blvd. to Port St. Lucie Blvd.	2	*	115	82	1.0%	121	86	126	146	247	232	860	YES	-
Gatlin Blvd.	N/S A to Community Blvd.	4	**	-	-	-	149	122	273	374	422	496	1,860	YES	-
	Community Blvd. to Village Pkwy.	4	**	-	-	-	440	360	707	885	1,147	1,245	1,860	YES	-
	Village Pkwy. to I-95	6	**	-	-	-	1,242	1,016	914	1,170	2,156	2,186	2,790	YES	-
	I-95 to Rosser Blvd.	6	*	986	535	8.0%	1,448	786	374	481	1,822	1,267	2,790	YES	-
	Rosser Blvd. to Savona Blvd.	6		1,023	423	8.0%	1,623	671	267	347	1,890	1,018	2,790	YES	-
	Savona Blvd. to Port St. Lucie Blvd.	6		734	625	8.0%	1,165	992	234	304	1,399	1,296	2,790	YES	-
E/W XY	N/S A to Community Blvd.	2	**	-	-	-	81	99	123	204	204	303	760	YES	-
	Community Blvd. to Village Pkwy.	2	**	-	-	-	338	413	167	240	505	653	760	YES	-
West Virginia Dr.***	Village Pkwy. to Commerce Center Pkwy.	4	**	-	-	-	972	795	225	317	1,197	1,112	2,232	YES	-
	Commerce Center Pkwy. to I-95	6	**	-	-	-	1,041	852	165	239	1,206	1,091	3,348	YES	-

* 2005 Traffic Counts

** Model Output

*** Level of Service was obtained from Keith and Schnars IJR Report. This report indicates a 20% higher Class I LOS.

TABLE TR-6

Western Annexation Study - Phase II

Total Peak Hour Directional Traffic - External Roadway Network

Roadway	Link	Number of Lanes		2004/2005 Traffic		Growth Rate	2015 Background		Gilson Diversion		Project		2015 Total		Service Volume	Meet LOS?	Recommended Improvements
				NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
Range Line	Martin Hwy. to Becker Rd.	2		109	77	1.0%	122	85			572	508	694	593	810	YES	-
	Becker Rd. to E/W 4 (Paar Dr.)	2		109	77	1.0%	122	85			214	227	336	312	810	YES	-
	E/W 4 (Paar Dr.) to E/W 3	2		109	77	1.0%	122	85			360	357	482	442	810	YES	-
	E/W 3 to E/W 1	2		109	77	1.0%	122	85			399	428	521	510	810	YES	-
	E/W 1 to Gatlin Blvd.	2		109	77	1.0%	122	85			428	458	550	543	810	YES	-
	Gatlin Blvd. to West Virginia Blvd.	2		109	77	1.0%	122	85			275	313	397	398	810	YES	-
	West Virginia Blvd. to Glades Cut-Off Rd.	2		109	77	1.0%	122	85			151	163	273	248	810	YES	-
Glades Cut-Off Rd.	Range Line / CR 809 to N/S A	2		128	88	1.0%	142	95			81	93	223	188	760	YES	-
	N/S A to Commerce Center Pkwy.	2		128	88	1.0%	142	95			230	272	372	367	760	YES	-
N/S A	Gatlin Blvd. to E/W XY	2	**	-	-	-	124	152			541	646	665	798	860	YES	-
	E/W XY to West Virginia Blvd.	2	**	-	-	-	145	178			498	590	641	768	860	YES	-
	West Virginia Blvd. to Glades Cut-Off Rd.	2	**	-	-	-	58	70			143	172	201	242	860	YES	-
Community Blvd.	Gatlin Blvd. to E/W XY	2	**	-	-	-	0	0			246	272	246	272	860	YES	-
Village Pkwy.	Gatlin Blvd. to E/W XY	4	**	-	-	-	590	722			730	728	1,320	1,450	1,860	YES	-
	E/W XY to West Virginia Blvd.	4	**	-	-	-	909	1,110			375	381	1,284	1,491	1,860	YES	-
I-95	Martin Hwy. to Becker Rd.	6		2,071	1,714	1.0%	2,310	1,912			1,254	1,141	3,564	3,053	5,410	YES	-
	Gatlin Blvd. to West Virginia Blvd.	6		1,952	1,988	1.0%	2,178	2,218			1,017	1,074	3,195	3,292	5,410	YES	-
	West Virginia Blvd. to St. Lucie West Blvd.	6		1,952	1,988	1.0%	2,178	2,218			1,092	1,193	3,270	3,411	5,410	YES	-
	St. Lucie West Blvd. to Midway Rd.	6		1,810	2,054	1.0%	2,019	2,291			682	749	2,701	3,040	5,410	YES	-
NW Peacock Blvd. Loop	St. Lucie West Blvd. to California Blvd.	2	*	337	231	1.0%	372	255			218	241	590	496	760	YES	-
Rosser Blvd.	Becker Rd. to Paar Dr.	2	*	250	385	2.0%	305	469			230	259	535	728	760	YES	-
	Paar Dr. to E/W 3	2	*	250	385	2.0%	305	469			194	218	499	687	760	YES	-
	E/W 3 to Gatlin Blvd.	2	*	250	385	2.0%	305	469			335	379	640	848	760	NO	4 Lanes
California Blvd.	West Virginia Blvd. to St. Lucie West Blvd.	2	*	429	403	3.5%	605	588			123	138	728	706	760	YES	-
Savona Blvd.	Gatlin Blvd. to California Blvd.	2	*	188	176	3.0%	223	237			121	126	344	363	760	YES	-
Port St. Lucie Blvd.	Martin Hwy. to Becker Rd.	2	**	-	-	-	635	519	730	470	380	330	1,725	1,319	890	NO	4 Lanes
	Becker Rd. to Paar Dr.	2		214	120	3.5%	312	175			298	290	810	485	890	YES	-
	Paar Dr. to Darwin Blvd.	2		214	120	3.5%	312	175			406	398	718	571	890	YES	-
	Darwin Blvd. to Gatlin Blvd.	4		790	834	3.5%	1,153	1,218			352	342	1,505	1,560	1,860	YES	-
	Gatlin Blvd. to Del Rio Blvd.	6		1,295	1,782	0.0%	1,295	1,782			745	778	2,040	2,538	2,790	YES	-
	Del Rio Blvd. to Bayshore Blvd.	6		1,487	1,989	0.0%	1,487	1,989			648	692	2,113	2,681	2,790	YES	-
	Bayshore Blvd. to Alcoso Blvd.	6		1,215	1,666	0.0%	1,215	1,666			532	572	1,747	2,238	2,790	YES	-
	Alcoso Blvd. to Southbend Blvd./Floresta Dr.	6		1,601	2,153	0.0%	1,601	2,153			451	484	2,052	2,637	2,790	YES	-
	Southbend Blvd./Floresta Dr. to Midport Rd.	6		2,053	3,491	0.0%	2,053	3,491			374	402	2,427	3,893	2,790	NO	?
Gilson Rd.	Mapp Rd/Murphy Rd. to Becker Rd.	2	**	-	-	-	1,361	1,130	-730	-470	106	99	757	756	760	YES	-
SR 714/Martin Hwy	I-95 to Port St. Lucie Blvd.	2		151	187	5.0%	257	319			201	227	458	546	860	YES	-
	Port St. Lucie Blvd. to Turnpike	2		151	187	5.0%	257	319	470	730	182	199	909	1,248	860	NO	4 Lanes
CR 714	Turnpike to High Meadows Ave.	2		598	434	2.0%	744	540			312	295	1,056	835	760	NO	4 Lanes
	High Meadows Ave. to Berry Ave.	2		577	472	2.0%	717	587			245	231	962	818	760	NO	4 Lanes
Becker Rd.	I-95 to Rosser Rd.	4		143	390	5.0%	245	666			1,070	1,169	1,315	1,835	1,860	YES	-
	Rosser Blvd. to Savona Blvd.	4		143	390	5.0%	245	666			828	908	1,073	1,574	1,860	YES	-
	Savona Blvd. to Port St. Lucie Blvd.	4		143	390	5.0%	245	666			791	869	1,036	1,535	1,860	YES	-
	Port St. Lucie Blvd. to Darwin Blvd.	4		143	390	8.0%	333	908	-470	-730	578	629	441	807	1,860	YES	-
	Darwin Blvd. to Turnpike	4		143	390	8.0%	333	908	-470	-730	578	629	441	807	1,860	YES	-
	Turnpike to Southbend Blvd.	2		143	390	12.0%	497	1,355	-470	-730	455	497	482	1,122	860	NO	4 Lanes
Paar Dr.	Rosser Blvd. to Savona Blvd.	2	*	115	82	1.0%	127	91			566	605	693	696	860	YES	-
	Savona Blvd. to Port St. Lucie Blvd.	2	*	115	82	1.0%	127	91			541	578	668	669	860	YES	-
Gatlin Blvd.	Range Line Rd. to N/S A	4	**	-	-	-	0	0			603	494	603	494	1,860	YES	-
	N/S A to Community Blvd.	4	**	-	-	-	85	69			704	802	789	871	1,860	YES	-
	Community Blvd. to Village Pkwy.	4	**	-	-	-	287	218			581	717	868	935	1,860	YES	-
	Village Pkwy. to I-95	6	**	-	-	-	1,355	1,656			1,385	1,483	2,740	3,139	2,790	NO	6 Lanes
	I-95 to Rosser Blvd.	6	*	988	535	4.0%	1,459	792			581	599	2,020	1,391	2,790	YES	-
	Rosser Blvd. to Savona Blvd.	6	*	1,023	423	4.0%	1,575	651			583	621	2,158	1,272	2,790	YES	-
	Savona Blvd. to Port St. Lucie Blvd.	6	*	734	625	4.0%	1,130	962			491	525	1,621	1,487	2,790	YES	-
E/W XY	N/S A to Community Blvd.	2	**	-	-	-	85	117			68	85	183	202	760	YES	-
West Virginia Dr.***	Range Line Rd. to N/S A	4	**	-	-	-	0	0			498	399	498	399	2,232	YES	-
	N/S A to Village Pkwy.	4	**	-	-	-	459	378			991	837	1,450	1,213	2,232	YES	-
	Village Pkwy. to Commerce Center Pkwy.	4	**	-	-	-	1,986	1,625			810	941	2,796	2,566	2,232	NO	6 Lanes
	Commerce Center Pkwy. to I-95	4	**	-	-	-	2,141	1,751			659	784	2,800	2,535	3,348	YES	-
	I-95 to California Blvd.	6	**	-	-	-	1,872	1,532			574	654	2,446	2,186	3,348	YES	-
	California Blvd. to Cashmere Rd.	6	**	-	-	-	1,693	1,386			422	482	2,115	1,868	3,348	YES	-
	Cashmere Rd. to Bayshore Blvd.	6	**	-	-	-	2,111	1,727			383	439	2,494	2,166	3,348	YES	-
St. Lucie W/ Prima Vista Blvd	Commerce Center Pkwy. to I-95	4		350	299	0.0%	350	299			198	207	548	506	1,800	YES	-
	I-95 to NW Peacock Blvd.	6		1,559	1,178	0.0%	1,559	1,178			428	466	1,987	1,644	2,710	YES	-
Midway Rd.	Torino Pkwy to Selvitz Rd.	2		800	638	3.0%	1,107	883			106	116	1,213	999	860	NO	4 Lanes

* 2005 Traffic Counts

** Model Output

*** Level of Service East of I-95 was obtained from Keith and Schnars IJR Report. This report indicates a 20% higher Class I LOS. Level of Service West of I-95 was assumed to be the same as East of I-95.

TABLE TR-7

Western Annexation Study - Phase III

Total Peak Hour Directional Traffic - External Roadway Network

Roadway	Link	Number of Lanes		2004/2005 Traffic NB/EB	2004/2005 Traffic SB/WB	Growth Rate	2020 Background NB/EB	2020 Background SB/WB	Gilson Diversion NB/EB	Gilson Diversion SB/WB	Project NB/EB	Project SB/WB	2020 Total NB/EB	2020 Total SB/WB	Service Volume	Meet LOS?	Recommended Improvements
Range Line	Martin Hwy. to Becker Rd.	2		109	77	1.0%	128	90			550	539	678	629	810	YES	-
	Becker Rd. to E/W 4 (Paar Dr.)	2		109	77	1.0%	128	90			275	296	403	386	810	YES	-
	E/W 4 (Paar Dr.) to E/W 3	2		109	77	1.0%	128	90			211	208	339	298	810	YES	-
	E/W 3 to E/W 1	2		109	77	1.0%	128	90			270	253	398	343	810	YES	-
	E/W 1 to Gatlin Blvd.	2		109	77	1.0%	128	90			194	176	322	266	810	YES	-
Glades Cut-Off Rd.	N/S A to Commerce Center Pkwy.	2		128	86	1.0%	150	100			275	294	425	394	760	YES	-
N/S A	Gatlin Blvd. to E/W XY	2	**	-	-	-	129	157			1,090	1,146	1,219	1,303	860	NO	4 Lanes
	E/W XY to West Virginia Blvd.	2	**	-	-	-	0	0			891	950	891	950	860	NO	4 Lanes
	West Virginia Blvd. to Glades Cut-Off Rd.	2	**	-	-	-	12	14			269	288	281	302	860	YES	-
Community Blvd.	Gatlin Blvd. to E/W XY	2	**	-	-	-	0	0			274	261	274	261	860	YES	-
Commerce Center Pkwy.	West Virginia Blvd. to St. Lucie West Blvd.	4	**	-	-	-	375	438			219	198	594	656	1,860	YES	-
Village Pkwy.	Gatlin Blvd. to E/W XY	4	**	-	-	-	604	738			1,286	1,093	1,890	1,831	1,860	NO	6 Lanes
	E/W XY to West Virginia Blvd.	4	**	-	-	-	953	1,165			638	545	1,591	1,710	1,860	YES	-
I-95	Martin Hwy. to Becker Rd.	6		2071	1714	1.0%	2,428	2,010			1,506	1,593	3,934	3,603	5,410	YES	-
	Gatlin Blvd. to West Virginia Blvd.	6		1952	1988	1.0%	2,289	2,331			1,278	1,143	3,567	3,474	5,410	YES	-
	West Virginia Blvd. to St. Lucie West Blvd.	6		1952	1988	1.0%	2,289	2,331			1,322	1,243	3,611	3,574	5,410	YES	-
	St. Lucie West Blvd. to Midway Rd.	6		1810	2054	1.0%	2,122	2,408			822	776	2,944	3,183	5,410	YES	-
NW Peacock Blvd. Loop	St. Lucie West Blvd. to California Blvd.	2	*	337	231	1.0%	391	268			267	257	658	525	760	YES	-
Rosser Blvd.	Becker Rd. to Paar Dr.	4	*	250	385	2.0%	336	518			466	523	802	1,041	1,620	YES	-
	Paar Dr. to E/W 3	4	*	250	385	2.0%	336	518			258	305	594	823	1,620	YES	-
	E/W 3 to Gatlin Blvd.	4	*	250	385	2.0%	336	518			644	747	980	1,265	1,620	YES	-
California Blvd.	Savonna Blvd. to Del Rio Blvd.	2	*	429	403	3.0%	668	628			90	92	758	720	760	YES	-
	West Virginia Blvd. to St. Lucie West Blvd.	2	*	429	403	3.0%	668	628			137	135	805	763	760	NO	4 Lanes
Savona Blvd.	Gatlin Blvd. to California Blvd.	2	*	166	176	3.0%	259	274			248	214	507	488	760	YES	-
Port St. Lucie Blvd.	Martin Hwy. to Becker Rd.	4	**	-	-	-	658	539	780	540	416	446	1,854	1,525	1,860	YES	-
	Becker Rd. to Paar Dr.	2		214	120	2.5%	318	178			517	555	835	733	890	YES	-
	Paar Dr. to Darwin Blvd.	2		214	120	2.5%	318	178			543	566	861	744	890	YES	-
	Darwin Blvd. to Gatlin Blvd.	4		790	834	2.5%	1,172	1,238			436	448	1,608	1,686	1,860	YES	-
	Gatlin Blvd. to Del Rio Blvd.	6		1295	1762	0.0%	1,295	1,762			1,078	956	2,373	2,718	2,790	YES	-
	Del Rio Blvd. to Bayshore Blvd.	6		1467	1989	0.0%	1,467	1,989			973	878	2,440	2,865	2,790	NO	?
	Bayshore Blvd. to Alroso Blvd.	6		1215	1666	0.0%	1,215	1,666			727	658	1,942	2,324	2,790	YES	-
	Alroso Blvd. to Southbend Blvd./Floresta Dr.	6		1601	2153	0.0%	1,601	2,153			630	571	2,231	2,724	2,790	YES	-
	Southbend Blvd./Floresta Dr. to Midport Rd.	8		2053	3491	0.0%	2,053	3,491			508	464	2,561	3,955	2,790	NO	?
	Midport Rd. to US-1	6		1764	1847	0.0%	1,764	1,847			319	292	2,083	2,139	2,790	YES	-
Bayshore Blvd.	Oakridge Blvd. to Port. St. Lucie Blvd.	2		872	981	1.0%	1,022	1,150			113	125	1,135	1,275	890	NO	4 Lanes
Southbend Blvd.	Becker Rd. to Oakridge Blvd.	2		301	286	1.0%	352	335			119	129	471	464	760	YES	-
Gilson Rd.	Mapp Rd/Murphy Rd. to Becker Rd.	2	**	-	-	-	1,404	1,149	-780	-540	133	143	757	752	760	YES	-
SR 714/Martin Hwy	I-95 to Port St. Lucie Blvd.	2		151	187	5.0%	329	407			190	181	519	588	860	YES	-
CR 714	Turnpike to High Meadows Ave.	4		598	434	2.0%	821	596			312	295	1,133	891	1,620	YES	-
	High Meadows Ave. to Berry Ave.	4		577	472	2.0%	792	648			245	231	1,037	879	1,620	YES	-
Becker Rd.	I-95 to Rosser Rd.	4		143	390	4.5%	289	788			2,062	1,972	2,351	2,760	1,860	NO	6 Lanes
	Rosser Blvd. to Savona Blvd.	4		143	390	4.5%	289	788			770	729	1,059	1,517	1,860	YES	-
	Savona Blvd. to Port St. Lucie Blvd.	4		143	390	4.5%	289	788			759	718	1,048	1,506	1,860	YES	-
	Port St. Lucie Blvd. to Darwin Blvd.	4		143	390	6.5%	392	1,067	-540	-780	849	791	701	1,078	1,860	YES	-
	Darwin Blvd. to Turnpike	4		143	390	6.5%	392	1,067	-540	-780	849	791	701	1,078	1,860	YES	-
	Turnpike to Southbend Blvd.	4		143	390	10.5%	707	1,924	-540	-780	563	520	730	1,664	1,860	YES	-
	Southbend Blvd. to Gilson Rd.	2		143	390	10.5%	707	1,924	-540	-780	163	153	330	1,297	860	NO	4 Lanes
Paar Dr.	Rosser Blvd. to Savona Blvd.	2	*	115	82	1.0%	134	95			1,297	1,175	1,431	1,270	860	NO	4 Lanes
	Savona Blvd. to Port St. Lucie Blvd.	2	*	115	82	1.0%	134	95			1,233	1,120	1,367	1,215	860	NO	4 Lanes
Gatlin Blvd.	Range Line Rd. to N/S A	4	**	-	-	-	0	0			852	757	852	757	1,860	YES	-
	N/S A to Community Blvd.	4	**	-	-	-	42	35			1,077	1,274	1,119	1,309	1,860	YES	-
	Community Blvd. to Village Pkwy.	4	**	-	-	-	516	422			629	763	1,145	1,185	1,860	YES	-
	Village Pkwy. to I-95	8	**	-	-	-	1,355	1,656			1,797	1,672	3,152	3,328	3,540	YES	-
	I-95 to Rosser Blvd.	6		986	535	2.5%	1,463	794			738	667	2,201	1,461	2,790	YES	-
	Rosser Blvd. to Savona Blvd.	6		1023	423	2.5%	1,519	628			979	870	2,498	1,498	2,790	YES	-
	Savona Blvd. to Port St. Lucie Blvd.	6		734	625	2.5%	1,090	928			772	690	1,862	1,618	2,790	YES	-

TABLE TR-7

Western Annexation Study - Phase III

Total Peak Hour Directional Traffic - External Roadway Network

Roadway	Link	Number of Lanes		2004/2005 Traffic NB/EB	2004/2005 Traffic SB/WB	Growth Rate	2020 Background NB/EB	2020 Background SB/WB	Gilson Diversion NB/EB	Gilson Diversion SB/WB	Project NB/EB	Project SB/WB	2020 Total NB/EB	2020 Total SB/WB	Service Volume	Meet LOS?	Recommended Improvements
Oakridge Blvd.	Bayshore Blvd. to Southbend Blvd.	2	*	872	981	1.0%	1,022	1,150			131	120	1,153	1,270	760	NO	4 Lanes
E/W XY	N/S A to Community Blvd.	2	**	-	-	-	179	219			111	133	290	352	760	YES	-
	Community Blvd. to Village Pkwy.	2	**	-	-	-	362	443			122	145	484	588	760	YES	-
West Virginia Dr.***	Range Line Rd. to N/S A	4	**	-	-	-	0	0			449	376	449	376	2,232	YES	-
	N/S A to Village Pkwy.	4	**	-	-	-	391	320			1,274	1,206	1,665	1,526	2,232	YES	-
	Village Pkwy. to Commerce Center Pkwy.	6	**	-	-	-	2,182	1,785			1,023	1,067	3,205	2,852	3,348	YES	-
	Commerce Center Pkwy. to I-95	6	**	-	-	-	2,269	1,857			937	979	3,206	2,836	3,348	YES	-
	I-95 to California Blvd.	6	**	-	-	-	2,004	1,639			759	766	2,763	2,405	3,348	YES	-
	California Blvd. to Cashmere Rd.	6	**	-	-	-	1,801	1,474			570	579	2,371	2,053	3,348	YES	-
	Cashmere Rd. to Bayshore Blvd.	6	**	-	-	-	2,183	1,786			542	546	2,725	2,332	3,348	YES	-
	Bayshore Blvd. to Alroso Blvd.	6	**	-	-	-	1,839	2,248			432	437	2,271	2,685	3,348	YES	-
St. Lucie W/ Prima Vista Blvd.	I-95 to NW Peacock Blvd.	6		1559	1178	0.0%	1,559	1,178			549	520	2,108	1,698	2,710	YES	-
	NW Peacock Blvd. to California Blvd.	4		1667	1234	0.0%	1,667	1,234			222	199	1,889	1,433	1,800	NO	6 Lanes
Midway Rd.	Selvitz Rd. to S. 25th St.	2		669	485	1.0%	784	569			129	123	913	692	860	NO	4 Lanes

* 2005 Traffic Counts
** Model Output
*** Level of Service East of I-95 was obtained from Keith and Schnars IJR Report. This report indicates a 20% higher Class I LOS. Level of Service West of I-95 was assumed to be the same as East of I-95.

TABLE TR-8

Western Annexation Study - Phase IV

Total Peak Hour Directional Traffic - External Roadway Network

Roadway	Link	Number of Lanes		2004/2005 Traffic NB/EB	2004/2005 Traffic SB/WB	Growth Rate	2025 Background NB/EB	2025 Background SB/WB	Gilson Diversion NB/EB	Gilson Diversion SB/WB	Project NB/EB	Project SB/WB	2025 Total NB/EB	2025 Total SB/WB	Service Volume	Meet LOS?	Recommended Improvements
Range Line	Martin Hwy. to Becker Rd.	2		109	77	1.0%	134	94			789	940	923	1,034	810	NO	4 Lanes
	Becker Rd. to E/W 4 (Paar Dr.)	2		109	77	1.0%	134	94			219	215	353	309	860	YES	-
	E/W 4 (Paar Dr.) to E/W 3	2		109	77	1.0%	134	94			275	308	409	402	860	YES	-
	E/W 3 to E/W 1	2		109	77	1.0%	134	94			390	316	524	410	860	YES	-
	E/W 1 to Gatlin Blvd.	2		109	77	1.0%	134	94			334	280	468	374	860	YES	-
	Gatlin Blvd. to West Virginia Blvd.	2		109	77	1.0%	134	94			153	139	287	233	860	YES	-
	West Virginia Blvd. to Glades Cut-Off Rd.	2		128	86	1.0%	157	105			175	146	309	240	860	YES	-
Glades Cut-Off Rd.	N/S A to Commerce Center Pkwy.	4	**	-	-	-	130	158			326	317	483	422	860	YES	-
N/S A	Gatlin Blvd. to E/W XY	4	**	-	-	-	152	186			1,137	1,097	1,267	1,255	1,860	YES	-
	E/W XY to West Virginia Blvd.	2	**	-	-	-	2	3			1,029	990	1,181	1,176	1,860	YES	-
	West Virginia Blvd. to Glades Cut-Off Rd.	2	**	-	-	-	0	0			289	285	291	288	860	YES	-
Community Blvd.	Gatlin Blvd. to E/W XY	2	**	-	-	-	421	515			394	334	394	334	860	YES	-
Commerce Center Pkwy.	West Virginia Blvd. to St. Lucie West Blvd.	4	**	-	-	-	149	248			301	243	722	758	1,860	YES	-
	St. Lucie West Blvd. to Glades Cut-Off Rd.	2	*	122	203	1.0%	788	961			96	71	245	319	860	YES	-
Village Pkwy.	Gatlin Blvd. to E/W XY	6	**	-	-	-	1,166	1,426			1,486	1,125	2,272	2,086	2,790	YES	-
	E/W XY to West Virginia Blvd.	4	**	-	-	-	1,166	1,426			801	612	1,967	2,038	1,860	NO	6 Lanes
I-95	Martin Hwy. to Becker Rd.	6		2071	1714	1.0%	2,552	2,112			2,072	2,536	4,624	4,648	5,410	YES	-
	Becker Rd. to E/W 3	6		2071	1714	1.0%	2,552	2,112			1,405	1,660	3,957	3,772	5,410	YES	-
	E/W 3 to Gatlin Blvd.	6		2071	1714	1.0%	2,552	2,112			1,419	1,571	3,971	3,683	5,410	YES	-
	Gatlin Blvd. to West Virginia Blvd.	6		1952	1988	1.0%	2,406	2,450			2,049	1,620	4,455	4,070	5,410	YES	-
	West Virginia Blvd. to St. Lucie West Blvd.	6		1952	1988	1.0%	2,406	2,450			1,762	1,465	4,168	3,915	5,410	YES	-
	St. Lucie West Blvd. to Midway Rd.	6		1810	2054	1.0%	2,231	2,531			1,097	919	3,328	3,450	5,410	YES	-
NW Peacock Blvd. Loop	St. Lucie West Blvd. to California Blvd.	2	*	337	231	1.0%	411	282			324	281	735	563	760	YES	-
Rosser Blvd.	Becker Rd. to Paar Dr.	4	*	250	385	2.0%	371	572			484	507	855	1,079	1,620	YES	-
	Paar Dr. to E/W 3	4	*	250	385	2.0%	371	572			302	333	673	905	1,620	YES	-
	E/W 3 to Gatlin Blvd.	4	*	250	385	2.0%	371	572			553	653	924	1,225	1,620	YES	-
California Blvd.	Savonna Blvd. to Del Rio Blvd.	2	*	429	403	1.0%	523	492			54	62	577	554	760	YES	-
	West Virginia Blvd. to St. Lucie West Blvd.	4	*	429	403	1.0%	523	492			237	207	760	699	1,620	YES	-
Savona Blvd.	Paar Dr. to Gatlin Blvd.	2	*	166	176	3.0%	300	318			125	138	425	456	760	YES	-
	Gatlin Blvd. to California Blvd.	2	*	166	176	3.0%	300	318			223	173	523	491	760	YES	-
Cashmere Blvd.	West Virginia Blvd. to St. Lucie West Blvd.	2	*	648	702	1.0%	791	857			83	71	874	928	760	NO	4 Lanes
Port St. Lucie Blvd.	Martin Hwy. to Becker Rd.	4	**	-	-	-	751	614	780	570	372	461	1,123	1,075	1,860	YES	-
	Becker Rd. to Paar Dr.	2		214	120	2.5%	359	202			510	571	869	773	890	YES	-
	Paar Dr. to Darwin Blvd.	2		214	120	2.5%	359	202			736	783	1,094	985	890	NO	4 Lanes
	Darwin Blvd. to Gatlin Blvd.	4		790	834	2.5%	1,326	1,401			617	657	1,943	2,058	1,860	NO	6 Lanes
	Gatlin Blvd. to Del Rio Blvd.	6		1295	1762	0.0%	1,295	1,762			1,636	1,204	2,931	2,966	2,790	NO	?
	Del Rio Blvd. to Bayshore Blvd.	6		1487	1989	0.0%	1,487	1,989			1,276	1,028	2,763	3,017	2,790	NO	?
	Bayshore Blvd. to Alroso Blvd.	6		1215	1666	0.0%	1,215	1,666			990	799	2,205	2,465	2,790	YES	-
	Alroso Blvd. to Southbend Blvd./Floresta Dr.	6		1601	2153	0.0%	1,601	2,153			774	630	2,375	2,783	2,790	YES	-
	Southbend Blvd./Floresta Dr. to Midport Rd.	6		2053	3491	0.0%	2,053	3,491			661	536	2,714	4,027	2,790	NO	?
	Midport Rd. to US-1	6		1764	1847	0.0%	1,764	1,847			408	333	2,172	2,180	2,790	YES	-
Bayshore Blvd.	Prima Vista Blvd. to Selvitz Rd.	2	*	594	664	2.0%	883	987			122	101	1,005	1,088	760	NO	4 Lanes
Alroso Blvd.	West Virginia Dr. to Prima Vista Blvd.	4	*	734	786	1.0%	896	959			264	222	1,160	1,181	1,860	YES	-
Southbend Blvd.	Becker Rd. to Oakridge Blvd.	2		301	286	1.0%	370	362			161	177	531	529	760	YES	-
Gilson Rd.	Mapp Rd/Murphy Rd. to Becker Rd.	2	**	-	-	-	1,365	1,116	-780	-570	171	209	756	755	760	YES	-
US-1	Lennard Rd. to Port St. Lucie Blvd.	8		2672	2018	0.0%	2,672	2,018			269	218	2,941	2,236	3,540	YES	-
SR 714/Martin Hwy	I-95 to Port St. Lucie Blvd.	2		151	187	5.0%	419	520			406	336	825	856	860	YES	-
	Port St. Lucie Blvd. to Turnpike	4		151	187	5.0%	419	520	570	780	239	195	1,228	1,495	1,860	YES	-
CR 714	Turnpike to High Meadows Ave.	4		598	434	2.0%	906	658			422	344	1,328	1,002	1,620	YES	-
	High Meadows Ave. to Berry Ave.	4		577	472	2.0%	875	715			346	281	1,221	996	1,620	YES	-

TABLE TR-8

Western Annexation Study - Phase IV

Total Peak Hour Directional Traffic - External Roadway Network

Roadway	Link	Number of Lanes		2004/2005 Traffic NB/EB	2004/2005 Traffic SB/WB	Growth Rate	2025 Background NB/EB	2025 Background SB/WB	Gilson Diversion NB/EB	Gilson Diversion SB/WB	Project NB/EB	Project SB/WB	2025 Total NB/EB	2025 Total SB/WB	Service Volume	Meet LOS?	Recommended Improvements
Becker Rd.	I-95 to Rosser Rd.	6		143	390	4.0%	326	888			1,816	1,448	2,142	2,336	2,790	YES	-
	Rosser Blvd. to Savona Blvd.	4		143	390	4.0%	326	888			1,029	831	1,355	1,719	1,860	YES	-
	Savona Blvd. to Port St. Lucie Blvd.	4		143	390	4.0%	326	888			1,013	820	1,339	1,708	1,860	YES	-
	Port St. Lucie Blvd. to Darwin Blvd.	4		143	390	3.5%	294	802	-570	-780	1,086	889	810	911	1,860	YES	-
	Darwin Blvd. to Turnpike	4		143	390	3.5%	294	802	-570	-780	1,096	896	820	918	1,860	YES	-
	Turnpike to Southbend Blvd.	4		143	390	7.5%	653	1,779	-570	-780	696	568	779	1,567	1,860	YES	-
	Southbend Blvd. to Gilson Rd.	4		143	390	7.5%	653	1,779	-570	-780	216	179	299	1,178	1,860	YES	-
Paar Dr.	Rosser Blvd. to Savona Blvd.	4	*	115	82	1.0%	140	100			1,647	1,337	1,787	1,437	1,860	YES	-
	Savona Blvd. to Port St. Lucie Blvd.	4	*	115	82	1.0%	140	100			1,498	1,220	1,638	1,320	1,860	YES	-
Gatlin Blvd.	Range Line Rd. to N/S A	4	**	0	0	-	0	0			923	903	923	903	1,860	YES	-
	N/S A to Community Blvd.	4	**	0	0	-	0	0			1,317	1,661	1,317	1,661	1,860	YES	-
	Community Blvd. to Village Pkwy.	4	**	251	308	-	251	308			791	988	1,042	1,294	1,860	YES	-
	Village Pkwy. to I-95	8	**	1238	1513	-	1,238	1,513			2,118	1,777	3,356	3,290	3,540	YES	-
	I-95 to Rosser Blvd.	6	*	986	535	1.0%	1,215	659			1,464	1,173	2,679	1,832	2,790	YES	-
	Rosser Blvd. to Savona Blvd.	6		1023	423	1.0%	1,261	521			1,250	1,000	2,511	1,521	2,790	YES	-
	Savona Blvd. to Port St. Lucie Blvd.	6		734	825	1.0%	905	770			1,350	1,043	2,255	1,813	2,790	YES	-
Westmoreland Blvd.	Port St. Lucie Blvd. to US-1	2		348	352	2.0%	627	534			105	85	832	619	760	YES	-
Oakridge Blvd.	Bayshore Blvd. to Southbend Blvd.	4		872	981	1.0%	1,074	1,209			141	116	1,215	1,325	1,620	YES	-
E/W XY	N/S A to Community Blvd.	2	**	-	-	-	139	113			114	135	253	248	760	YES	-
West Virginia Dr.***	Range Line Rd. to N/S A	4	**	-	-	-	0	0			515	467	515	467	2,232	YES	-
	N/S A to Village Pkwy.	4	**	-	-	-	282	231			1,440	1,518	1,722	1,749	2,232	YES	-
	Village Pkwy. to Commerce Center Pkwy.	6	**	-	-	-	2,180	1,783			1,090	1,045	3,270	2,828	3,348	YES	-
	Commerce Center Pkwy. to I-95	6	**	-	-	-	2,358	1,930			899	879	3,257	2,809	3,348	YES	-
	I-95 to California Blvd.	6	**	-	-	-	1,891	1,547			1,085	965	2,976	2,512	3,348	YES	-
	California Blvd. to Cashmere Rd.	6	**	-	-	-	1,775	1,453			810	721	2,585	2,174	3,348	YES	-
	Cashmere Rd. to Bayshore Blvd.	6	**	-	-	-	2,177	1,781			768	682	2,945	2,463	3,348	YES	-
	Bayshore Blvd. to Alroso Blvd.	6	**	-	-	-	1,850	2,261			637	566	2,487	2,827	3,348	YES	-
	Alroso Blvd. to Floresta Dr.	6	**	-	-	-	1,520	1,858			370	336	1,890	2,194	3,348	YES	-
	Floresta Dr. to Midport Rd.	6	**	-	-	-	2,286	2,794			330	300	2,616	3,094	3,348	YES	-
St. Lucie W/ Prima Vista Blvd.	Commerce Center Pkwy. to I-95	4		350	299	0.0%	350	299			246	317	596	616	1,800	YES	-
	I-95 to NW Peacock Blvd.	6		1559	1178	0.0%	1,559	1,178			690	581	2,249	1,759	2,710	YES	-
	California Blvd. to Cashmere Rd.	4		1687	1234	0.0%	1,687	1,234			302	251	1,989	1,485	1,800	NO	6 Lanes
	Alroso Blvd. to Floresta Dr.	4		1973	2424	0.0%	1,973	2,424			162	132	2,135	2,556	1,800	NO	6 Lanes
Midway Rd.	Commerce Center Pkwy. to I-95	2		204	251	3.0%	379	466			57	72	436	538	860	YES	-
	I-95 to Glades Cut-Off Rd.	4		529	733	3.0%	984	1,363			176	213	1,160	1,576	1,860	YES	-
	Selvitz Rd. to S. 25th St.	4		669	485	1.5%	915	663			154	132	1,069	795	1,860	YES	-
	S. 25th St. to Sunrise Blvd.	2		837	839	1.0%	1,031	1,033			128	111	1,159	1,144	860	NO	4 Lanes
	Sunrise Blvd. to Oleander Ave.	2		837	839	1.0%	1,031	1,033			133	116	1,164	1,149	860	NO	4 Lanes

* 2005 Traffic Counts

** Model Output

*** Level of Service East of I-95 was obtained from Keith and Schnars IJR Report. This report indicates a 20% higher Class I LOS. Level of Service West of I-95 was assumed to be the same as East of I-95.

APPENDIX H

Internal Roadway Network Figures

This appendix contains Figures referenced in the General Conditions of Approval for the Western Grove DRI:

Figure I H-2
Figure II H-3
Figure III H-4
Figure IV H-5

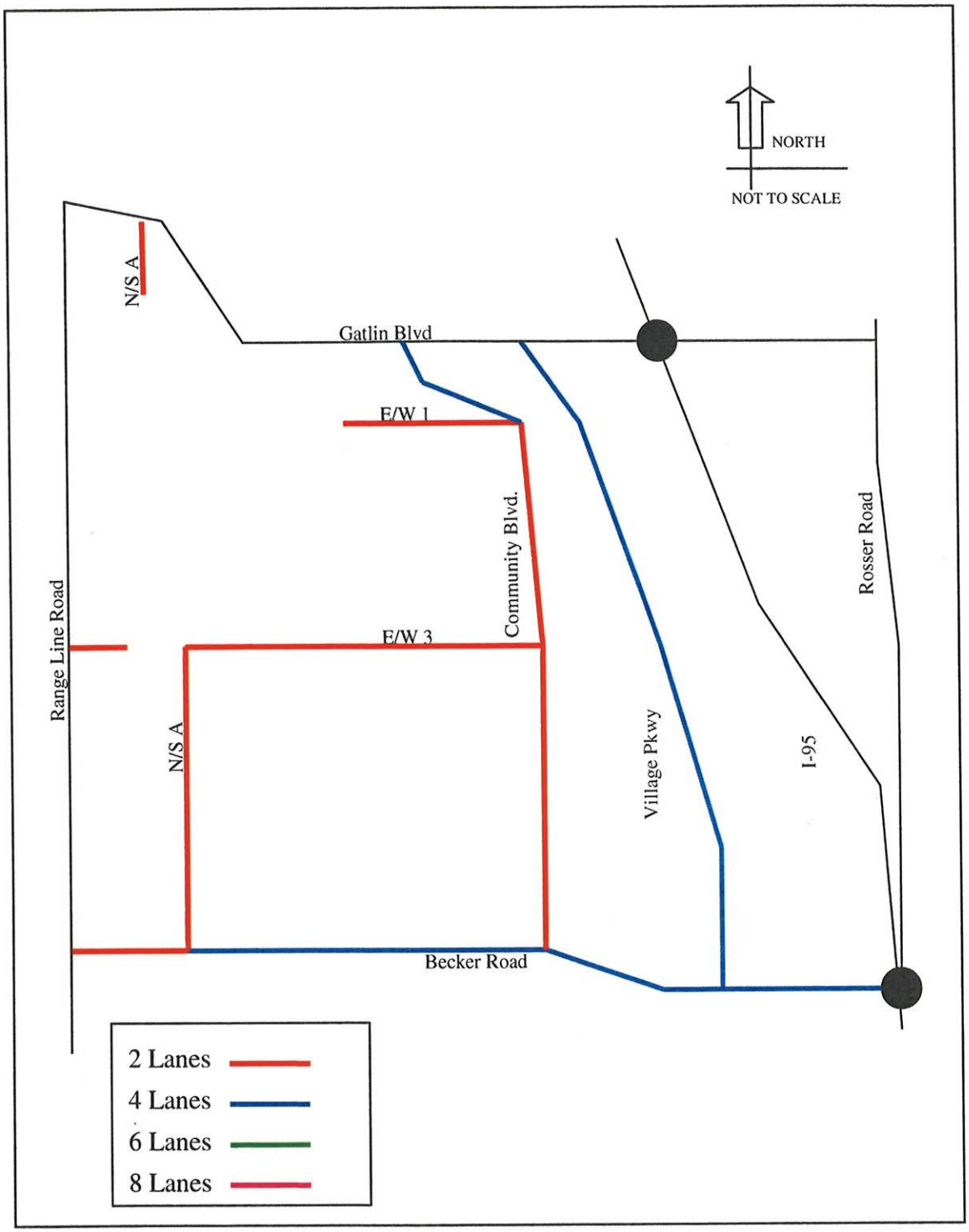

Figure I
Western Grove DRI
Roadway Geometry – Internal Roadway Network

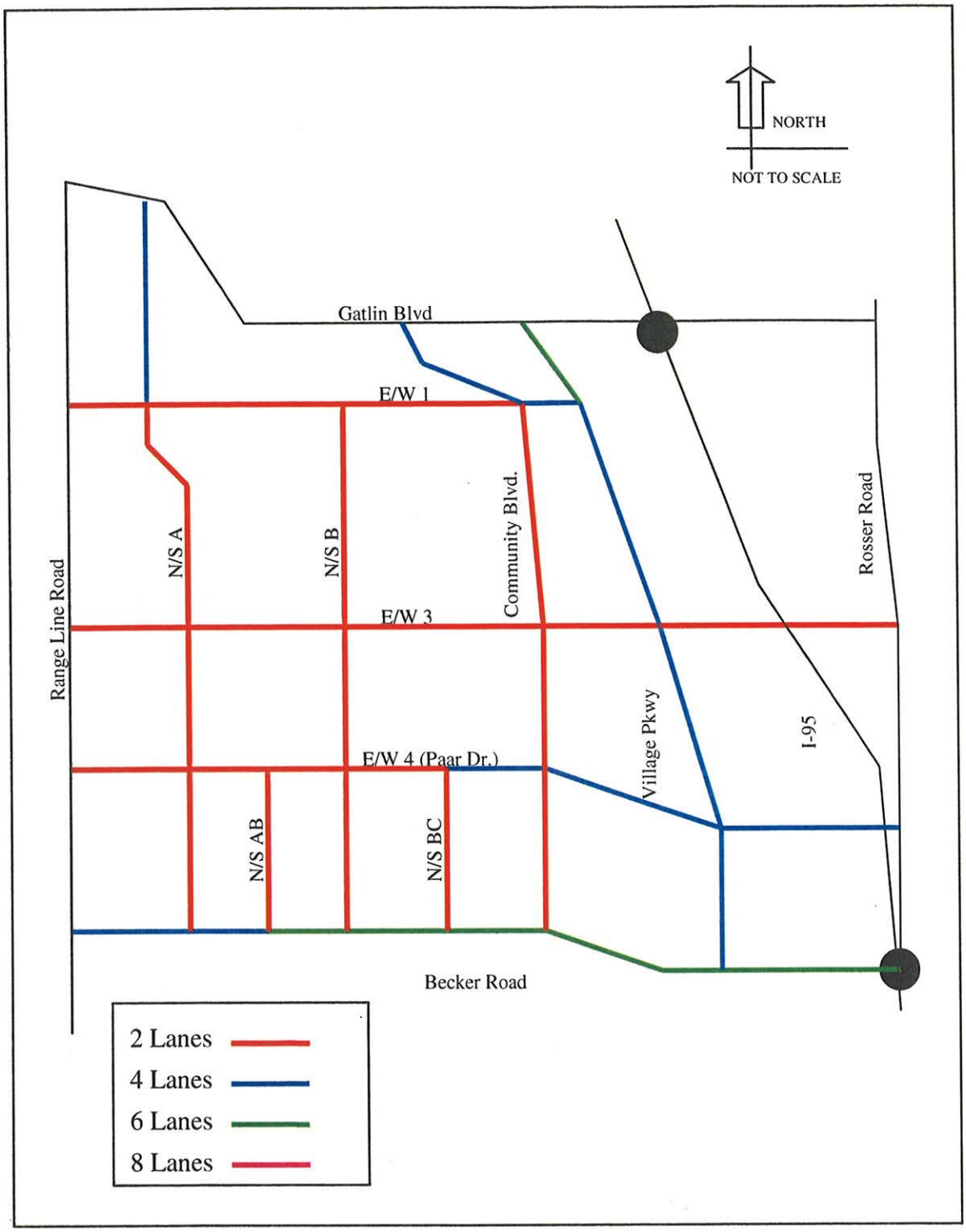

Figure II
Western Grove DRI
Roadway Geometry – Internal Roadway Network

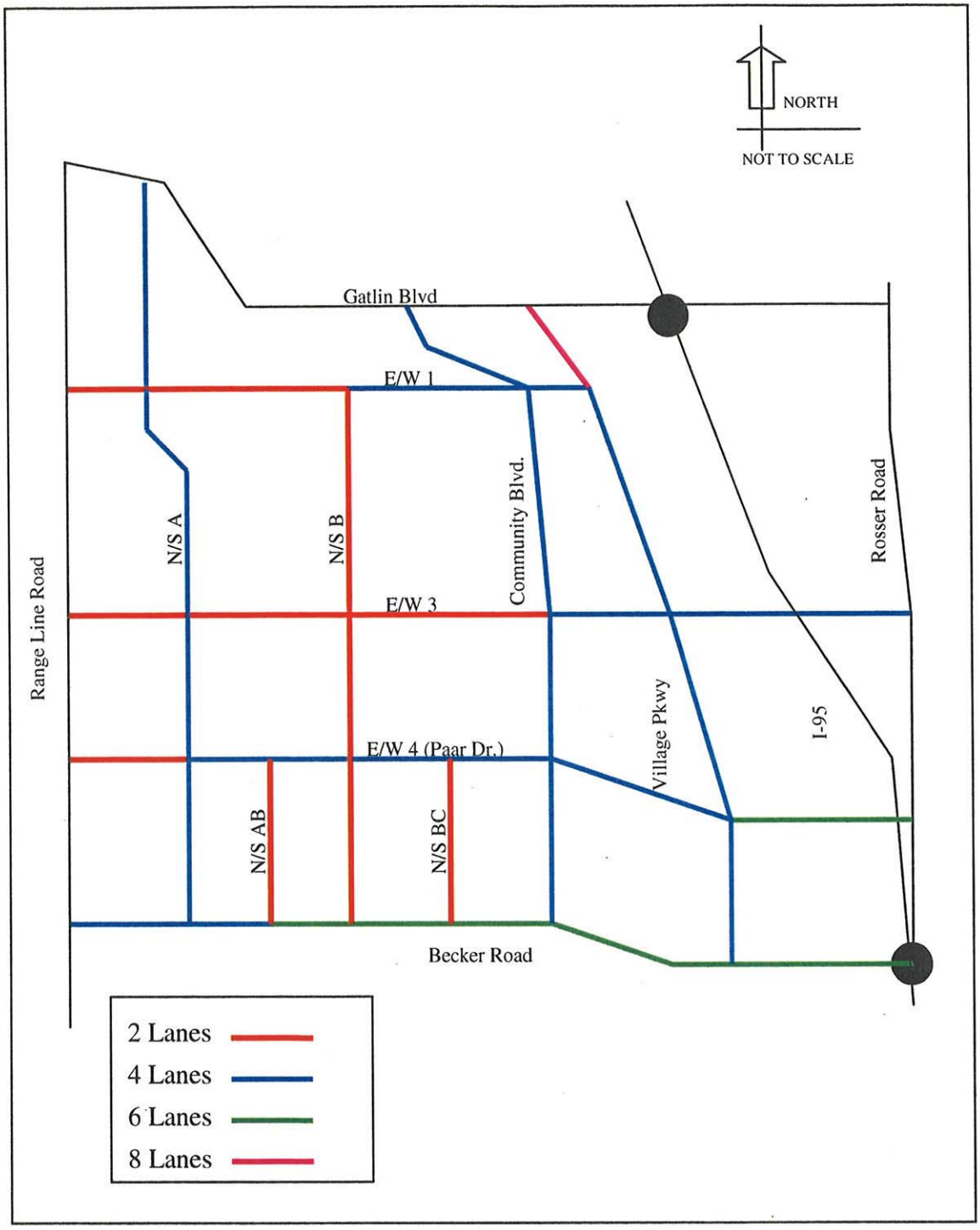

Figure III
Western Grove DRI
Roadway Geometry – Internal Roadway Network

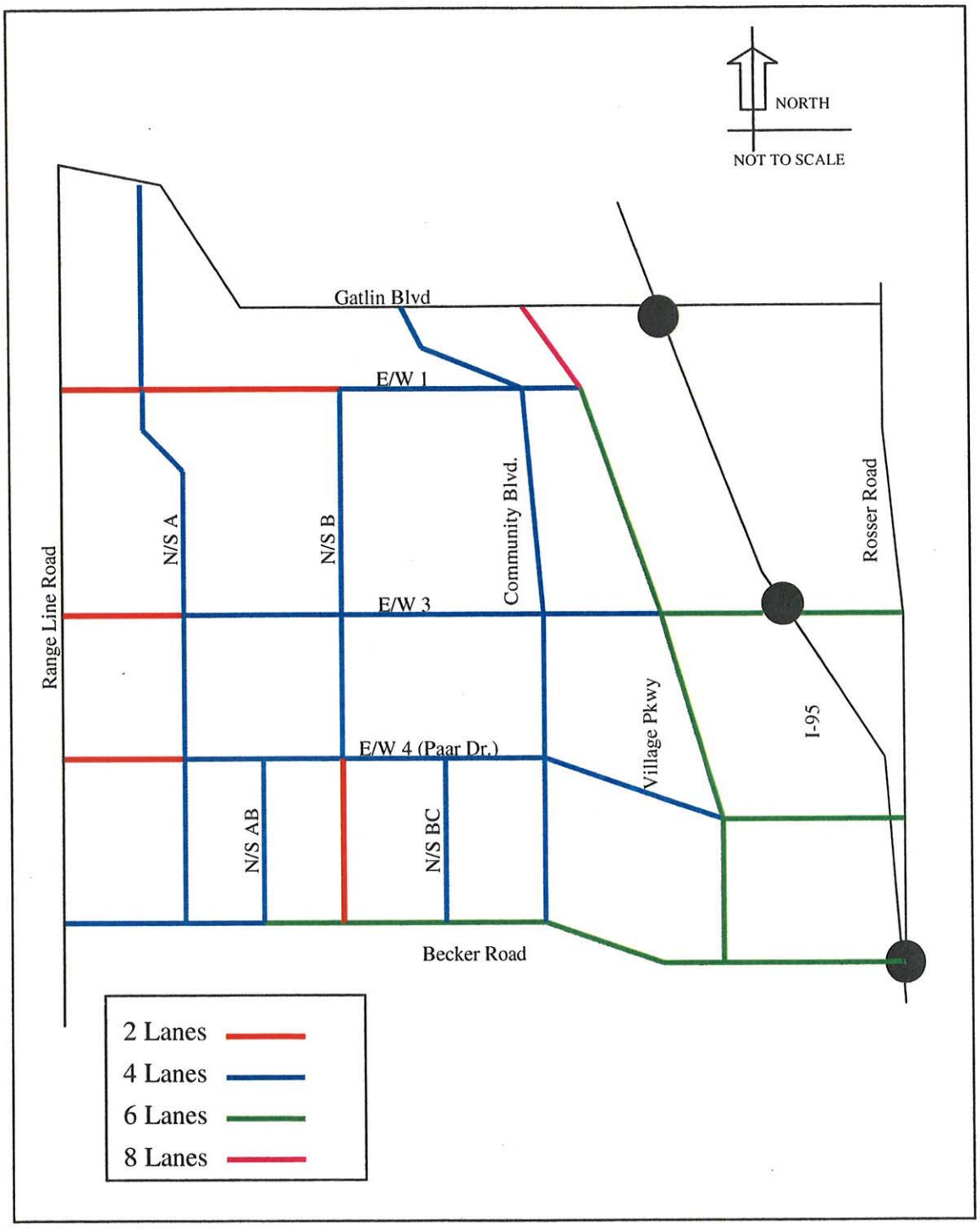

Figure IV
Western Grove DRI
Roadway Geometry – Internal Roadway Network

APPENDIX I

WESTERN ANNEXATION TRAFFIC STUDY

FINAL REPORT

Prepared by:

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January 2006

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APPENDIX E : SIGNIFICANT IMPACT

APPENDIX F : INTERNAL ROADWAY NETWORK

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INTRODUCTION

The City of Port St. Lucie has recently annexed a significant amount of land generally located southwest of the City. This property is part of the land referred to as the Western Annexation Area and is generally bounded by Range Line Road to the west, I-95 to the east, the County line to the south and Gatlin Boulevard to the north. There is a small portion located north of Gatlin Boulevard and east of Range Line Road.

Four developments have been proposed for this area: Western Grove, Southern Grove, Riverland, and Wilson Groves. All these developments have submitted Applications for Development Approval for Development of Regional Impact (DRI). Development has been proposed in four five-year phases with buildout in the year 2025. **Figure 1** summarizes total land uses proposed for each development and presents the general location of these developments.

Total development proposed for these 11,495 acres includes over 30,800 residential units, nearly 10 million square feet of office/industrial development, over 4 million square feet of commercial retail, and civic and institutional uses, schools and parks.

Within close proximity to the Western Annexation Area, there are five major approved DRIs totaling over 14,000 acres which include over 30,000 residential units and over 14 million square feet of non-residential development. Buildout of these projects is anticipated in the year 2022.

The City of Port St. Lucie has experienced a significant amount of growth within the past three years and has been characterized as the fastest growing City in the Nation (July 2005 US Census). This high growth added to all approved and proposed development creates a demand for transportation facilities. As travel patterns and behavior of residents in the area change in response to new development, roadway capacity becomes an issue. New roads as well as roadway expansions become a priority in order to support development.

The City has taken a proactive approach and is currently conducting the necessary studies to build two new interchanges along I-95: at Becker Road and West Virginia Boulevard (recently named Crosstown Parkway). The City is also acquiring right-of-way to build West Virginia Boulevard from Range Line Road to US-1. This Boulevard is intended primarily for mobility while having limited access. Both interchanges are anticipated to be built by the year 2010. West Virginia Boulevard will be built in phases.

Land Use	Units	Western Grove	Southern Grove	Riverland	Wilson Groves	*Total*
Single Family	d.u.	3,268	5,833	8,424	5,775	***23,300***
Multi-Family	d.u.	812	1,555	3,276	1,925	***7,568***
Hotel	Rooms	0	500	0	0	***500***
Industrial	s.f.	0	1,999,404	1,361,250	1,361,249	***4,721,903***
Commercial	s.f.	365,904	2,164,061	892,668	765,000	***4,187,633***
Service	s.f.	250,906	2,073,238	1,361,250	1,583,249	***5,268,643***
Civic	s.f.	0	41,927	101,781	80,695	***224,403***
Institutional	s.f.	54,450	276,369	327,327	302,177	***960,323***
School	Students	2,220	8,220	4,140	2,220	***16,800***
Park	Ac.	20	80	172	130	***402***

Figure 1. Land Use Intensities by Development

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TRAFFIC STUDY

A regional transportation study has been performed for this area of St. Lucie County. The study has been referred to as the "Western Annexation Traffic Study" and has been a coordinated effort between public agencies and private parties.

The purpose of the study is to determine traffic generated by the proposed DRIs, determine future traffic projections and identify infrastructure necessary to support the proposed developments while maintaining adopted levels of service.

The study area as presented in **Figure 2** is generally bounded by West Midway Road to the north, SR 714 (Martin County) to the south, US-1 to the east, and Range Line Road to the west.

Figure 2. Study Area

METHODOLOGY

The traffic study was performed by MTP Group with coordination of representatives from Port St. Lucie, St. Lucie County, Martin County, The Florida Department of Transportation, the developers, and their traffic consultants. Several meetings were held throughout the duration of the study. The kick-off meeting was held August 16, 2004. **Appendix A** includes the following meeting information: agenda, list of participants, and meeting summary.

The roadway network was divided into two areas: internal roadways and external roadways. Internal roadways are those roadways inside the Western Annexation Area while all other roadways were considered external. Port St. Lucie prepared a preliminary sketch of internal roadways to be constructed within the Western Annexation Area. The study evaluated these roads to determine general location and lane geometry.

The traffic study assumes all these developments are to occur concurrently in compliance with the phasing presented in the study with the potential for a large amount of interaction among them. The study also relies on land uses allocated to traffic analysis zones as presented in the study as well as access points between traffic analysis zones. It assumes all improvements will be built concurrent with development and buildout of these developments will be in the year 2025. Additional traffic impact is likely to occur if any of these assumptions changes. Therefore, a revised traffic study will need to be prepared.

This document presents the methodology, analysis, and results of the study.

PLANNED ROADWAY IMPROVEMENTS

The following roadways are planned within the study area:

- West Virginia Boulevard (recently named Crosstown Parkway) with a four-lane-divided cross-section between Range Line Road and Lennard Road. This facility will be built in the year 2015 with an intermediate phase in the year 2010 from Village Parkway to Floresta Drive.

- Port St. Lucie Boulevard extension to SR 714 (Martin County) with a two-lane cross-section.

- Southbend Boulevard between Port St. Lucie Boulevard and Becker Road with a two-lane cross-section (recently completed).

- Becker Road between I-95 and the Turnpike widening to four-lane-divided.

- Interchange at Becker Road and the Turnpike.

- Interchange at Becker Road and I-95.

- Interchange at West Virginia Boulevard and I-95.

EXISTING TRAFFIC CONDITIONS

Existing (2004) traffic was obtained from information available from FDOT, St. Lucie County, and the City of Port St. Lucie. This information was supplemented with traffic counts performed by MTP Group.

Appendix B includes traffic counts as well as the determination of directional traffic during the p.m. peak hour. Existing (2004) peak hour directional traffic is presented in **Table 1** while **Table 2** includes roadway characteristics and adopted level of service for existing traffic conditions.

Table 1
Western Annexation Study
Existing (2004) Peak Hour/Peak Direction Traffic

Rodway	Link	Lanes	2004/5 Traffic	NB/EB	Meet LOS?	SB/WB	Meet LOS?	Peak Direction
Range Line / CR 609	Martin Hwy. to Glades Cut-Off Rd.	2	2,223	109	Y	77	Y	NB
Glades Cut-Off Rd.	Range Line / CR 609 to Commerce Center Pkwy.	2	2,871	128	Y	86	Y	NB
	Commerce Center Pkwy to Midway Rd.	2	3,445	167	Y	111	Y	NB
	N. of Midway Rd.	2	6,302 *	190	Y	296	Y	SB
Commerce Center Pkwy.	St. Lucie West Blvd. to Glades Cut-off Rd.	2	4,636 *	122	Y	203	Y	SB
I-95	Martin Hwy. to Gatlin Blvd.	6	51,166	2071	Y	1714	Y	NB
	Gatlin Blvd. to St. Lucie West Blvd.	6	57,116	1952	Y	1988	Y	SB
	St. Lucie West Blvd. to Midway Rd.	6	57,980	1810	Y	2054	Y	SB
NW Peacock Blvd. Loop	St. Lucie West Blvd. to University Dr.	4	6,653 *	337	Y	231	Y	NB
	University Dr. to California Blvd.	4	6,653 *	337	Y	231	Y	NB
	California Blvd. to Cashmere Blvd.	2	6,653 *	337	Y	231	Y	NB
Rosser Blvd.	Becker Rd. to Paar Dr.	2	8,055 *	250	Y	385	Y	SB
	Paar Dr. to Gatlin Blvd.	2	8,055 *	250	Y	385	Y	SB
California Blvd.	Del Rio Blvd. to Savonna Blvd.	2	10,169 *	429	Y	403	Y	NB
	Savonna Blvd. to Del Rio Blvd.	2	10,169 *	429	Y	403	Y	NB
	Del Rio Blvd. to Heatherwood Blvd.	2	10,169 *	429	Y	403	Y	NB
	Heatherwood Blvd. to St. Lucie West Blvd.	4	10,169 *	429	Y	403	Y	NB
	St. Lucie West Blvd. to NW Peacock Blvd. Loop	4	10,169 *	429	Y	403	Y	NB
	NW Peacock Blvd. Loop to Torino Pkwy.	2	10,169 *	429	Y	403	Y	NB
Savona Blvd.	Becker Rd. to Paar Dr.	2	4,069 *	166	Y	176	Y	SB
	Paar Dr. to Gatlin Blvd.	2	4,069 *	166	Y	176	Y	SB
	Gatlin Blvd. to California Blvd.	2	4,069 *	166	Y	176	Y	SB
Cashmere Blvd.	Del Rio Blvd. to Heatherwood Blvd.	2	16,645 *	648	Y	702	Y	SB
	Heatherwood Blvd. to St. Lucie West Blvd.	2	16,645 *	648	Y	702	Y	SB
	St. Lucie West Blvd. to NW Peacock Blvd. Loop	2	8,938 *	382	Y	460	Y	SB
E Torino Pkwy.	NW Peacock Blvd. to Midway Rd.	2	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Del Rio Blvd.	Port St. Lucie Blvd. to California Blvd.	2	14,107	642	Y	460	Y	NB
	California Blvd. to Cashmere Blvd.	2	4,945 *	159	Y	243	Y	WB
	Cashmere Blvd. to California Blvd.	2	4,945 *	159	Y	243	Y	WB

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Rodway	Link	Lanes	2004/5 Traffic	NB/EB	Meet LOS?	SB/WB	Meet LOS?	Peak Direction
Port St. Lucie Blvd.	Becker Rd. to Paar Dr.	2	3,726	214	Y	120	Y	NB
	Paar Dr. to Darwin Blvd.	2	3,726	214	Y	120	Y	NB
	Darwin Blvd. to Gatlin Blvd.	4	20,847	790	Y	834	Y	SB
	Gatlin Blvd. to Del Rio Blvd.	6	38,238	1295	Y	1762	Y	WB
	Del Rio Blvd. to Bayshore Blvd.	6	42,882	1467	Y	1989	Y	WB
	Bayshore Blvd. to Airoso Blvd.	6	42,754	1215	Y	1666	Y	WB
	Airoso Blvd. to Southbend Blvd./Floresta Drive	6	45,613	1601	Y	2153	Y	WB
	Southbend Blvd./Floresta Drive to Midport Rd.	6	64,323	2053	Y	3491	N	WB
	Midport Rd. to Morningside Blvd.	6	43,497	1764	Y	1847	Y	WB
	Morningside Blvd. to US-1	6	36,722	1516	Y	1816	Y	WB
Darwin Blvd.	Becker Rd. to Paar Dr.	2	8,096 *	435	Y	303	Y	NB
	Paar Dr. to Port St. Lucie Blvd.	2	8,096 *	435	Y	303	Y	NB
Turnpike	Martin Hwy. to Port St. Lucie Blvd.	4	33,898	1473	Y	1171	Y	NB
	Port St. Lucie Blvd. to Ft. Pierce (SR 70)	4	27,530	1196	Y	951	Y	NB
Bayshore Blvd.	Oakridge Blvd. to Port. St. Lucie Blvd.	4	22,999	872	Y	981	Y	SB
	Port. St. Lucie Blvd. to West Virginia Dr.	4	22,999	872	Y	981	Y	SB
	West Virginia Dr. to Prima Vista Blvd.	4	23,031 *	842	Y	883	Y	SB
	Prima Vista Blvd. to Floresta Dr.	2	15,812 *	594	Y	664	Y	SB
	Floresta Dr. to Selvitz Rd.	2	15,812 *	594	Y	664	Y	SB
	Selvitz Rd. to St. James Dr.	2	15,812 *	594	Y	664	Y	SB
Selvitz Rd.	Bayshore Blvd. to Midway Rd.	2	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
St. James Dr.	Bayshore Blvd. to Manville Dr.	2	15,219	553	Y	839	Y	SB
	Manville Dr. to Midway Rd.	4	14,799	526	Y	680	Y	SB
25th Street	N. of Midway	4	15,122	592	Y	848	Y	SB
Airoso Blvd.	Port. St. Lucie Blvd. to West Virginia Dr.	4	12,611	546	Y	451	Y	NB
	West Virginia Dr. to Prima Vista Blvd.	4	18,317 *	734	Y	786	Y	SB
	Prima Vista Blvd. to Floresta Dr.	4	9,844	330	Y	516	Y	SB
	Floresta Dr. to St. James Blvd.	4	15,672	581	Y	756	Y	SB
Southbend Blvd.	Oakridge Blvd. to Port St. Lucie Blvd.	2	7,937	301	Y	286	Y	NB
Floresta Dr.	Port. St. Lucie Blvd. to West Virginia Dr.	2	19,085	1017	N	596	Y	NB
	West Virginia Dr. to Prima Vista Blvd.	2	14,444	470	Y	707	Y	SB
	Prima Vista Blvd. to Airoso Blvd.	2	8,995	462	Y	331	Y	NB
	Airoso to Bayshore Blvd.	2	3,285	108	Y	170	Y	WB

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Rodway	Link	Lanes	2004/5 Traffic	NB/EB	Meet LOS?	SB/WB	Meet LOS?	Peak Direction
Midport Rd.	Port St. Lucie Blvd. to Lyngate Dr.	4	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Lyngate Dr. to US-1	4	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Oleander Ave.	RioMar Dr. to Saeger Rd.	2	4,556	212	Y	262	Y	SB
	Saeger Rd. to Midway Rd.	2	6,288	286	Y	371	Y	SB
US-1	Westmoreland Blvd. to Port St. Lucie Blvd.	8	59,647	2672	Y	2018	Y	NB
	Port. St. Lucie Blvd. to Jennings Rd.	6	54,606	2245	Y	2168	Y	NB
	Jennings Rd. to Tiffany Dr./Lyngate Dr.	6	54,606	2245	Y	2168	Y	NB
	Tiffany Dr./Lyngate Dr. to Walton Rd.	6	54,606	2245	Y	2168	Y	NB
	Walton Rd. to Village Green Dr.	6	48,524	1960	Y	1891	Y	NB
	Village Green Dr. to Savannah Club Blvd.	6	48,524	1960	Y	1891	Y	NB
	Savannah Club Blvd. to Prima Vista Blvd.	6	53,342	2240	Y	1961	Y	NB
	Prima Vista Blvd. to Rio Mar Dr.	6	44,565	1849	Y	1842	Y	NB
	Rio Mar Dr. to Saeger Rd.	4	44,565	1849	Y	1842	Y	NB
	Saeger Rd. to Easy St.	4	41,829	1746	Y	1720	Y	NB
	Easy St. to Midway Rd.	4	45,164	1907	N	1825	Y	NB
	N. of Midway	4	37,686	1451	Y	1283	Y	NB
SR 714/Martin Downs Blvd	W. of Allahapattah Rd/Haledairy Rd.	2	4,129	151	Y	187	Y	WB
	Allahapattah Rd/Haledairy Rd. to I-95	2	4,129	151	Y	187	Y	WB
	I-95 to Loop RD/SW 48th Ave.	2	4,129	151	Y	187	Y	WB
	Loop RD/SW 48th Ave. to Turnpike	2	4,129	151	Y	187	Y	WB
	N. of FL. TPK Entrance to W. of Mapp Rd.	2	17,806	682	Y	874	N	SB
Becker Rd.	Rosser Blvd. to Savona Blvd.	2	5,808	143	Y	390	Y	WB
	Savona Blvd. to Port St. Lucie Blvd.	2	5,808	143	Y	390	Y	WB
	Port St. Lucie Blvd. to Darwin Blvd.	2	5,808	143	Y	390	Y	WB
	Darwin Blvd. to Southbend Blvd.	2	5,808	143	Y	390	Y	WB
	Southbend Blvd. to Gilson Rd.	2	5,808	143	Y	390	Y	WB
Gilson Rd./Murphy Rd./Mapp Rd	S. of Becker	2	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Paar Dr.	Rosser Blvd. to Savona Blvd.	2	2,742 *	115	Y	82	Y	EB
	Savona Blvd. to Port St. Lucie Blvd.	2	2,742 *	115	Y	82	Y	EB
	Port St. Lucie Blvd. to Darwin Blvd.	2	2,742 *	115	Y	82	Y	EB

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Rodway	Link	Lanes	2004/5 Traffic	NB/EB	Meet LOS?	SB/WB	Meet LOS?	Peak Direction
Gatlin Blvd.	Village Pkwy. to I-95	4	17,882 *	986	Y	535	Y	EB
	I-95 to Rosser Blvd.	6	17,882 *	986	Y	535	Y	EB
	Rosser Blvd. to Savona Blvd.	6	16,664	1023	Y	423	Y	EB
	Savona Blvd. to Port St. Lucie Blvd.	6	16,101	734	Y	625	Y	EB
Westmoreland Blvd.	Port St. Lucie Blvd. to Morningside Blvd.	2	8,424	348	Y	352	Y	SB
	Morningside Blvd. to US-1	2	8,422	238	Y	603	Y	WB
Oakridge Blvd.	Bayshore Blvd. to Southbend Blvd.	2	22,999	872	N	981	N	SB
Lyngate Dr.	Midport Rd. to Morningside Blvd.	2	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Morningside Blvd. to US-1	2	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
West Virginia Dr.	Bayshore Blvd. to Airoso Blvd.	2	2,500 *	150	Y	70	Y	EB
	Airoso Blvd. to Floresta Dr.	2	2,500 *	150	Y	70	Y	EB
St. Lucie W/ Prima Vista Blvd.	Commerce Center Pkwy. to I-95	4	8,962	350	Y	299	Y	EB
	I-95 to NW Peacock Blvd.	4	34,045	1559	Y	1178	Y	EB
	NW Peacock Blvd. to California Blvd.	4	37,130	1667	Y	1234	Y	EB
	California Blvd. to Cashmere Rd.	4	37,130	1667	Y	1234	Y	EB
	Cashmere Rd. to Bayshore Blvd.	6	53,105	1973	Y	2424	Y	WB
	Bayshore Blvd. to Airoso Blvd.	4	53,105	1973	N	2424	N	WB
	Airoso Blvd. to Southbend Blvd/Foresta Dr.	4	53,105	1973	N	2424	N	WB
	Southbend Blvd/Foresta Dr. to Rio Mar Dr.	4	53,105	1973	N	2424	N	WB
	Rio Mar Dr. to US-1	4	7,468	356	Y	293	Y	EB
Midway Rd.	W. of Eleven Mile Rd.	2	4,669 *	170	Y	225	Y	WB
	Eleven Mile Rd. to W. of SR-9/I-95	4	5,221	204	Y	251	Y	WB
	I-95 to Glades Cut-Off Rd	4	16,321	529	Y	733	Y	WB
	Glades Cut-Off Rd to Torino Pkwy	4	12,919	573	Y	484	Y	EB
	Torino Pkwy to Selvitz Rd.	2	17,331	800	Y	638	Y	EB
	Selvitz Rd. to S. 25th St.	2	14,169	669	Y	485	Y	EB
	S. 25th St. to Sunrise Blvd.	2	20,472	837	Y	839	Y	WB
	Sunrise Blvd. to Citrus Ave.	2	20,472	837	Y	839	Y	WB
	Citrus Ave. to Oleander Ave.	2	19,692	813	Y	804	Y	EB
	Oleander Ave. to US-1	2	19,692	813	Y	804	Y	EB

* 2005 Traffic Counts
* Service Volumes were obtained from Table 4-7 Generalized Peak Hour Directional Volumes for Florida's Urbanized Areas. Page 97. Florida Department of Transportation. Systems Planning Office. 605 Suwannee St., MS 19. Tallahassee, FL, 32399. February

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Table 2
Western Annexation Study
Existing (2004) Peak Hour/Peak Direction Roadway Characteristics and Adopted Level of Service

Rodway	Link	Lanes	Jurisdiction	Facility Type	Class Group	Adopted LOS	Service Volume
Range Line / CR 609	Martin Hwy. to Glades Cut-Off Rd.	2	St. Lucie County	Collector	-	D	760
Glades Cut-Off Rd.	Range Line / CR 609 to Commerce Center Pkwy	2	St. Lucie County	Collector	-	D	760
	Commerce Center Pkwy to Midway Rd.	2	St. Lucie County	Collector	-	D	760
	N. of Midway Rd.	2	St. Lucie County	Collector	-	D	760
Commerce Center Pkwy.	St. Lucie West Blvd. to Glades Cut-off Rd.	2	City of Port St. Lucie/County	Arterial	1	D	860
I-95	Martin Hwy. to Gatlin Blvd.	6	F-DOT	Freeway	2	C	4,550
	Gatlin Blvd. to St. Lucie West Blvd.	6	F-DOT	Freeway	2	D	5,530
	St. Lucie West Blvd. to Midway Rd.	6	F-DOT	Freeway	2	D	5,530
NW Peacock Blvd. Loop	St. Lucie West Blvd. to University Dr.	4	City of Port St. Lucie	Collector	-	D	1,620
	University Dr. to California Blvd.	4	City of Port St. Lucie	Collector	-	D	1,620
	California Blvd. to Cashmere Blvd.	2	City of Port St. Lucie	Collector	-	D	760
Rosser Blvd.	Becker Rd. to Paar Dr.	2	City of Port St. Lucie	Collector	-	D	760
	Paar Dr. to Gatlin Blvd.	2	City of Port St. Lucie	Collector	-	D	760
California Blvd.	Del Rio Blvd. to Savonna Blvd.	2	City of Port St. Lucie	Collector	-	D	760
	Savonna Blvd. to Del Rio Blvd.	2	City of Port St. Lucie	Collector	-	D	760
	Del Rio Blvd. to Heatherwood Blvd.	2	City of Port St. Lucie	Collector	-	D	760
	Heatherwood Blvd. to St. Lucie West Blvd.	4	City of Port St. Lucie	Collector	-	D	1,620
	St. Lucie West Blvd. to NW Peacock Blvd. Loop	4	City of Port St. Lucie	Collector	-	D	1,620
	NW Peacock Blvd. Loop to Torino Pkwy.	2	City of Port St. Lucie	Collector	-	D	760
Savona Blvd.	Becker Rd. to Paar Dr.	2	City of Port St. Lucie	Collector	-	D	760
	Paar Dr. to Gatlin Blvd.	2	City of Port St. Lucie	Collector	-	D	760
	Gatlin Blvd. to California Blvd.	2	City of Port St. Lucie	Collector	-	D	760
Cashmere Blvd.	Del Rio Blvd. to Heatherwood Blvd.	2	City of Port St. Lucie	Collector	-	D	760
	Heatherwood Blvd. to St. Lucie West Blvd.	2	City of Port St. Lucie	Collector	-	D	760
	St. Lucie West Blvd. to NW Peacock Blvd. Loop	2	City of Port St. Lucie	Collector	-	D	760
E Torino Pkwy.	NW Peacock Blvd. to Midway Rd.	2	City of Port St. Lucie	Collector	-	D	760
Del Rio Blvd.	Port St. Lucie Blvd. to California Blvd.	2	City of Port St. Lucie	Collector	-	D	760
	California Blvd. to Cashmere Blvd.	2	City of Port St. Lucie	Collector	-	D	760
	Cashmere Blvd. to California Blvd.	2	City of Port St. Lucie	Collector	-	D	760

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Table 2
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Rodway	Link	Lanes	Jurisdiction	Facility Type	Class Group	Adopted LOS	Service Volume
Port St. Lucie Blvd.	Becker Rd. to Paar Dr.	2	City of Port St. Lucie	Arterial	1	E	890
	Paar Dr. to Darwin Blvd.	2	City of Port St. Lucie	Arterial	1	E	890
	Darwin Blvd. to Gatlin Blvd.	4	City of Port St. Lucie	Arterial	1	E	1,860
	Gatlin Blvd. to Del Rio Blvd.	6	City of Port St. Lucie	Arterial	1	E	2,790
	Del Rio Blvd. to Bayshore Blvd.	6	City of Port St. Lucie	Arterial	1	E	2,790
	Bayshore Blvd. to Airoso Blvd.	6	City of Port St. Lucie	Arterial	1	E	2,790
	Airoso Blvd. to Southbend Blvd./Floresta Drive	6	City of Port St. Lucie	Arterial	1	E	2,790
	Southbend Blvd./Floresta Drive to Midport Rd.	6	City of Port St. Lucie	Arterial	1	E	2,790
	Midport Rd. to Morningside Blvd.	6	City of Port St. Lucie	Arterial	1	E	2,790
	Morningside Blvd. to US-1	6	City of Port St. Lucie	Arterial	1	E	2,790
Darwin Blvd.	Becker Rd. to Paar Dr.	2	City of Port St. Lucie	Collector	-	D	760
	Paar Dr. to Port St. Lucie Blvd.	2	City of Port St. Lucie	Collector	-	D	760
Turnpike	Martin Hwy. to Port St. Lucie Blvd.	4	F-DOT	Freeway	-	C	2,940
	Port St. Lucie Blvd. to Ft. Pierce (SR 70)	4	F-DOT	Freeway	-	C	2,940
Bayshore Blvd.	Oakridge Blvd. to Port. St. Lucie Blvd.	4	City of Port St. Lucie	Collector	-	E	1,620
	Port. St. Lucie Blvd. to West Virginia Dr.	4	City of Port St. Lucie	Collector	-	E	1,620
	West Virginia Dr. to Prima Vista Blvd.	4	City of Port St. Lucie	Collector	-	E	1,620
	Prima Vista Blvd. to Floresta Dr.	2	City of Port St. Lucie	Collector	-	D	760
	Floresta Dr. to Selvitz Rd.	2	City of Port St. Lucie	Collector	-	D	760
	Selvitz Rd. to St. James Dr.	2	City of Port St. Lucie	Collector	-	D	760
Selvitz Rd.	Bayshore Blvd. to Midway Rd.	2	City of Port St. Lucie	Collector	-	D	760
St. James Dr.	Bayshore Blvd. to Manville Dr.	2	City of Port St. Lucie	Arterial	1	E	890
	Manville Dr. to Midway Rd.	4	City of Port St. Lucie	Arterial	1	E	1,860
25th Street	N. of Midway	4	St. Lucie County	Arterial	1	D	1,860
Airoso Blvd.	Port. St. Lucie Blvd. to West Virginia Dr.	4	City of Port St. Lucie	Arterial	1	E	1,860
	West Virginia Dr. to Prima Vista Blvd.	4	City of Port St. Lucie	Arterial	1	E	1,860
	Prima Vista Blvd. to Floresta Dr.	4	City of Port St. Lucie	Arterial	1	E	1,860
	Floresta Dr. to St. James Blvd.	4	City of Port St. Lucie	Arterial	1	E	1,860
Southbend Blvd.	Oakridge Blvd. to Port St. Lucie Blvd.	2	City of Port St. Lucie	Collector	-	D	760
Floresta Dr.	Port. St. Lucie Blvd. to West Virginia Dr.	2	City of Port St. Lucie	Collector	-	E	760
	West Virginia Dr. to Prima Vista Blvd.	2	City of Port St. Lucie	Collector	-	E	760
	Prima Vista Blvd. to Airoso Blvd.	2	City of Port St. Lucie	Collector	-	E	760
	Airoso to Bayshore Blvd.	2	City of Port St. Lucie	Collector	-	E	760

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Table 2
Western Annexation Study
Existing (2004) Peak Hour/Peak Direction Roadway Characteristics and Adopted Level of Service

Rodway	Link	Lanes	Jurisdiction	Facility Type	Class Group	Adopted LOS	Service Volume
Midport Rd.	Port St. Lucie Blvd. to Lyngate Dr.	4	City of Port St. Lucie	Arterial	1	E	1,860
	Lyngate Dr. to US-1	4	City of Port St. Lucie	Arterial	1	E	1,860
Oleander Ave.	RioMar Dr. to Saeger Rd.	2	St. Lucie County	Arterial	1	D	860
	Saeger Rd. to Midway Rd.	2	St. Lucie County	Arterial	1	D	860
US-1	Westmoreland Blvd. to Port St. Lucie Blvd.	8	City of Port St. Lucie	Arterial	1	E	3,540
	Port. St. Lucie Blvd. to Jennings Rd.	6	City of Port St. Lucie	Arterial	1	E	2,790
	Jennings Rd. to Tiffany Dr./Lyngate Dr.	6	City of Port St. Lucie	Arterial	1	E	2,790
	Tiffany Dr./Lyngate Dr. to Walton Rd.	6	City of Port St. Lucie	Arterial	1	E	2,790
	Walton Rd. to Village Green Dr.	6	City of Port St. Lucie	Arterial	1	E	2,790
	Village Green Dr. to Savannah Club Blvd.	6	City of Port St. Lucie	Arterial	1	E	2,790
	Savannah Club Blvd. to Prima Vista Blvd.	6	St. Lucie County	Arterial	1	D	2,790
	Prima Vista Blvd. to Rio Mar Dr.	6	St. Lucie County	Arterial	1	D	2,790
	Rio Mar Dr. to Saeger Rd.	4	St. Lucie County	Arterial	1	D	1,860
	Saeger Rd. to Easy St.	4	St. Lucie County	Arterial	1	D	1,860
	Easy St. to Midway Rd.	4	St. Lucie County	Arterial	1	D	1,860
	N. of Midway	4	St. Lucie County	Arterial	1	D	1,860
SR 714/Martin Downs Blvd	W. of Allahapattah Rd/Haledairy Rd.	2	Martin County	Arterial	1	D	860
	Allahapattah Rd/Haledairy Rd. to I-95	2	Martin County	Arterial	1	D	860
	I-95 to Loop RD/SW 48th Ave.	2	Martin County	Arterial	1	D	860
	Loop RD/SW 48th Ave. to Turnpike	2	Martin County	Arterial	1	D	860
	N. of FL. TPK Entrance to W. of Mapp Rd.	2	Martin County	Arterial	1	D	860
Becker Rd.	Rosser Blvd. to Savona Blvd.	2	City of Port St. Lucie/St. Lucie County	Collector	-	D	760
	Savona Blvd. to Port St. Lucie Blvd.	2	City of Port St. Lucie/St. Lucie County	Collector	-	D	760
	Port St. Lucie Blvd. to Darwin Blvd.	2	City of Port St. Lucie/St. Lucie County	Collector	-	D	760
	Darwin Blvd. to Southbend Blvd.	2	City of Port St. Lucie/St. Lucie County	Collector	-	D	760
	Southbend Blvd. to Gilson Rd.	2	City of Port St. Lucie/St. Lucie County	Collector	-	D	760
Gilson Rd./Murphy Rd./Mapp R	S. of Becker	2	City of Port St. Lucie	Collector	-	D	760
Paar Dr.	Rosser Blvd. to Savona Blvd.	2	City of Port St. Lucie	Collector	-	D	760
	Savona Blvd. to Port St. Lucie Blvd.	2	City of Port St. Lucie	Collector	-	D	760
	Port St. Lucie Blvd. to Darwin Blvd.	2	City of Port St. Lucie	Collector	-	D	760

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Table 2
Western Annexation Study
Existing (2004) Peak Hour/Peak Direction Roadway Characteristics and Adopted Level of Service

Rodway	Link	Lanes	Jurisdiction	Facility Type	Class Group	Adopted LOS	Service Volume
Gatlin Blvd.	Village Pkwy. to I-95	4	City of Port St. Lucie	Arterial	1	E	1,860
	I-95 to Rosser Blvd.	6	City of Port St. Lucie	Arterial	1	E	2,790
	Rosser Blvd. to Savona Blvd.	6	City of Port St. Lucie	Arterial	1	E	2,790
	Savona Blvd. to Port St. Lucie Blvd.	6	City of Port St. Lucie	Arterial	1	E	2,790
Westmoreland Blvd.	Port St. Lucie Blvd. to Morningside Blvd.	2	City of Port St. Lucie	Collector	-	D	760
	Morningside Blvd. to US-1	2	City of Port St. Lucie	Collector	-	D	760
Oakridge Blvd.	Bayshore Blvd. to Southbend Blvd.	2	City of Port St. Lucie	Collector	-	D	760
Lyngate Dr.	Midport Rd. to Morningside Blvd.	2	City of Port St. Lucie	Collector	-	D	760
	Morningside Blvd. to US-1	2	City of Port St. Lucie	Collector	-	D	760
West Virginia Dr.	Bayshore Blvd. to Airoso Blvd.	2	City of Port St. Lucie	Collector	-	D	760
	Airoso Blvd. to Floresta Dr.	2	City of Port St. Lucie	Collector	-	D	760
St. Lucie W/ Prima Vista Blvd.	Commerce Center Pkwy. to I-95	4	City of Port St. Lucie	Arterial	2	E	1,800
	I-95 to NW Peacock Blvd.	4	City of Port St. Lucie	Arterial	2	E	1,800
	NW Peacock Blvd. to California Blvd.	4	City of Port St. Lucie	Arterial	2	E	1,800
	California Blvd. to Cashmere Rd.	4	City of Port St. Lucie	Arterial	2	E	1,800
	Cashmere Rd. to Bayshore Blvd.	6	City of Port St. Lucie	Arterial	2	E	2,710
	Bayshore Blvd. to Airoso Blvd.	4	City of Port St. Lucie	Arterial	2	E	1,800
	Airoso Blvd. to Southbend Blvd/Foresta Dr.	4	City of Port St. Lucie	Arterial	1	E	1,860
	Southbend Blvd/Foresta Dr. to Rio Mar Dr.	4	St. Lucie County	Arterial	1	D	1,860
	Rio Mar Dr. to US-1	4	St. Lucie County	Arterial	1	D	1,860
Midway Rd.	W. of Eleven Mile Rd.	2	St. Lucie County	Arterial	1	D	860
	Eleven Mile Rd. to W. of SR-9/I-95	4	St. Lucie County	Arterial	1	D	1,860
	I-95 to Glades Cut-Off Rd	4	St. Lucie County	Arterial	1	D	1,860
	Glades Cut-Off Rd to Torino Pkwy	4	St. Lucie County	Arterial	1	D	1,860
	Torino Pkwy to Selvitz Rd.	2	St. Lucie County	Arterial	1	D	860
	Selvitz Rd. to S. 25th St.	2	St. Lucie County	Arterial	1	D	860
	S. 25th St. to Sunrise Blvd.	2	St. Lucie County	Arterial	1	D	860
	Sunrise Blvd. to Citrus Ave.	2	St. Lucie County	Arterial	1	D	860
	Citrus Ave. to Oleander Ave.	2	St. Lucie County	Arterial	1	D	860
	Oleander Ave. to US-1	2	St. Lucie County	Arterial	1	D	860

* 2005 Traffic Counts
* Service Volumes were obtained from Table 4-7 Generalized Peak Hour Directional Volumes for Florida's Urbanized Areas. Page 97. Florida Department of Transportation. Systems Planning Office. 605 Suwannee St., MS 19. Tallahassee, FL, 32399. February 2002. Collectors were assumed as Non-State Roadways (Major City/County Roadways)

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TRIP GENERATION

Appendix C contains daily and peak hour trip generation, internal capture, and pass-by for each TAZ and for each DRI. The information presented in this Appendix includes:

1) A summary table presenting the following information:
   - Gross Trip Generation per TAZ. This information was developed using trip generation rates and equations contained in the Institute of Transportation Engineers, Trip Generation Report, 7th Edition.
   - External Trips (Internal Capture). External trips per TAZ were calculated by subtracting internal trips per TAZ.
   - Net External Trips (Pass-By). Net external trips include reductions for passer-by per TAZ.
   - Percent Internal Among Project TAZ. This information was obtained from FSUTMS model runs and included in memorandums prepared by Keith & Schnars **(Appendix D).**
   - Total Net External Trips (Internal Among TAZ's). External trips after adjustments for internal capture among TAZ's within the same project were performed.
   - Trips External to the Western Annexation Study Area. These are the trips which go outside the western annexation study area. These are the trips crossing a cordon line bounded by: Range Line Road, I-95, Glades Road, and the County line. This information was also obtained from FSUTMS model runs summarized in **Appendix D.**
   - External/Gross indicates the percentage of trips external to the western annexation study area to the gross trips per TAZ.
2) A summary table presenting pass-by per TAZ. Passer-by was estimated based on the size of the retail development as follows:
   - Less than or equal to 50,000 square feet – 25% of 75% of external trips per TAZ.
   - Between 50,000 and 200,000 square feet – 15% of 75% of external trips per TAZ.
   - Greater than or equal to 200,000 square feet – 10% of 75% of external trips per TAZ.
3) Tables presenting trip generation calculations per TAZ.
4) Internal capture per TAZ using the procedure recommended by the Institute of Transportation Engineers in the Trip Generation Handbook for multi-use developments.
5) Tables summarizing land uses per TAZ.

Trip generation information has been presented for daily and p.m. peak hour conditions for each phase of development. **Table 3** summarizes daily external trips while **Table 4** presents the same information during the p.m. peak hour.

Table 3
Western Annexation Study
Cumulative Daily External Trips

Phase / DRI	Western Grove	Southern Grove	Riverland	Wilson Groves	TOTAL
Phase 1 (2010)	7,963	13,292	32,007	25,883	**79,145**
Phase 2 (2015)	26,969	66,403	110,332	61,492	**265,196**
Phase 3 (2020)	46,620	117,010	134,672	83,762	**382,064**
Phase 4 (2025)	46,975	163,121	140,083	96,188	**446,367**

Table 4
Western Annexation Study
Cumulative External P.M. Peak Hour Trips

Phase / DRI	Western Grove			Southern Grove			Riverland			Wilson Groves		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Phase 1 (2010)	2,493	2,044	4,537	5,123	6,697	11,820	6,942	6,519	13,461	4,166	4,484	8,650
Phase 2 (2015)	1,480	1,138	2,618	3,157	3,469	6,626	5,944	4,991	10,935	3,261	2,986	6,247
Phase 3 (2020)	497	300	797	734	555	1,289	1,728	1,491	3,219	1,380	1,193	2,573
Phase 4 (2025)	2,510	2,061	4,571	6,990	10,071	17,061	7,095	7,277	14,372	4,543	5,639	10,182

Table 4
Western Annexation Study
Cumulative External P.M. Peak Hour Trips – Grand Totals

Phase	In	Out	Total
Phase 1 (2010)	**18,724**	**19,744**	**38,468**
Phase 2 (2015)	**13,842**	**12,584**	**26,426**
Phase 3 (2020)	**4,339**	**3,539**	**7,878**
Phase 4 (2025)	**21,138**	**25,048**	**46,186**

TRIP DISTRIBUTION AND ASSIGNMENT

Project traffic distribution and assignment was determined using the Florida Standard Urban Transportation Structure, usually referred to as the FSUTMS model. The model was run by Keith & Schnars and it was calibrated and adjusted to include the land uses for each DRI for each phase. Select zone analyses were performed to determine trip assignment for each DRI.

Memorandums summarizing the results of FSUTMS model runs for each phase of development are included in **Appendix D.** Using the total net external p.m. peak hour trip generation for each DRI, significant impact was determined. Significant impact is defined as project traffic consuming five percent (5%) or more of the adopted level of service for a specific facility. The analysis evaluates those roadway links where any of the proposed developments has significant impact.

Appendix E presents tables and figures showing determination of significant impact for each DRI for each phase.

INTERNAL ROADWAY NETWORK

Internal roadway needs were based on the results of the FSUTMS model. Model traffic was adjusted by MOCF, K and D factors to determine peak hour directional traffic at Buildout of each phase.

A roadway network prepared by the City of Port St. Lucie was used as a starting point. This network was revised as needed based on the results of the study. **Appendix F** contains tables presenting the internal roadway network analysis for each phase of development. Figures showing the internal roadway network for each phase are also included in this appendix. **Table 5** summarizes roadway needs for the internal roadway system for each development phase. **Figure 3** presents the internal roadway system at buildout. Specific dates when the improvements are needed have not been determined as it depends on the location and amount of development built within each phase.

While the study presents future roadway needs based on buildout of these developments, it does not include buildout of adjacent land. It is, therefore, recommended that right-of-way be preserved for ultimate six-lane-divided cross-sections within this area. The only exception would be the two-lane cross-section between Paar Drive and Becker Road which the developer has indicated would be part of a town center. To maintain the character of the area, this road should be kept as two lanes.

The analysis assumes there are connections between traffic analysis zones (TAZ's). These connections reduce traffic to the roadway network. It also assumes specific land uses within each TAZ. These assumptions need to hold true for the analysis to be valid.

Table 5
Western Annexation Study
Number of Lanes and Improvements by Phase - Internal Network

Roadway	Link	Phase I - 2010		Phase II - 2015		Phase III - 2020		Phase IV - 2025	
		Lanes	Improvements	Lanes	Improvements	Lanes	Improvements	Lanes	Improvements
N/S A	Becker Rd. to E/W 4 (Paar Dr.)	2	-	2	+2	4	-	4	-
	E/W 4 (Paar Dr.) to E/W 3	2	-	2	+2	4	-	4	-
	E/W 3 to E/W 1	-	+2	2	+2	4	-	4	-
	E/W 1 to Gatlin Blvd.	*	+4	4	-	4	-	4	-
N/S AB	Becker Rd. to E/W 4 (Paar Dr.)	-	+2	2	-	2	+2	4	-
N/S B	Becker Rd. to E/W 4 (Paar Dr.)	-	+2	2	-	2	-	2	-
	E/W 4 (Paar Dr.) to E/W 3	-	+2	2	-	2	+2	4	-
	E/W 3 to E/W 1	-	+2	2	-	2	+2	4	-
N/S BC	Becker Rd. to E/W 4 (Paar Dr.)	-	+2	2	-	2	+2	4	-
Community Blvd	Becker Rd. to E/W 4 (Paar Dr.)	2	-	2	+2	4	-	4	-
	E/W 4 (Paar Dr.) to E/W 3	2	-	2	+2	4	-	4	-
	E/W 3 to E/W 1	2	-	2	+2	4	-	4	-
	E/W 1 to Gatlin Blvd.	2	+2	4	-	4	-	4	-
Village Pkwy.	Becker Rd. to E/W 4 (Paar Dr.)	4	-	4	-	4	+2	6	-
	E/W 4 (Paar Dr.) to E/W 3	4	-	4	-	4	+2	6	-
	E/W 3 to E/W 1	4	-	4	-	4	+2	6	-
	E/W 1 to Gatlin Blvd.	4	-	4	+2	6	+2	8	-
Becker Rd.	Range Line Rd. to N/S A	2	+2	4	-	4	-	4	-
	N/S A to N/S AB	2	+2	4	-	4	-	4	-
	N/S AB to N/S B	2	+4	6	-	6	-	6	-
	N/S B to N/S BC	2	+4	6	-	6	-	6	-
	N/S BC to Community Blvd.	2	+4	6	-	6	-	6	-
	Community Blvd. to Village Pkwy.	4	+2	6	-	6	-	6	-
	Village Pkwy. to I-95	4	+2	6	-	6	-	6	-
E/W 4 (Paar Dr.)	Range Line Rd. to N/S A	-	+2	2	-	2	-	2	-
	N/S A to N/S AB	-	+2	2	+2	4	-	4	-
	N/S AB to N/S B	-	+2	2	+2	4	-	4	-
	N/S B to N/S BC	-	+2	2	+2	4	-	4	-
	N/S BC to Community Blvd.	-	+2	2	+2	4	-	4	-
	Community Blvd. to Village Pkwy.	-	+2	2	+2	4	-	4	-
	Village Pkwy. to Rosser Blvd.	-	+2	2	+4	6	-	6	-
E/W 3	Range Line Rd. to N/S A	*	-	2	-	2	-	2	-
	N/S A to N/S B	2	-	2	-	2	+2	4	-
	N/S B to Community Blvd.	2	-	2	-	2	+2	4	-
	Community Blvd. to Village Pkwy.	-	+2	2	+2	4	-	4	-
	Village Pkwy. to I-95	-	+2	2	+2	4	+2	6	-
	I-95 to Rosser	-	+2	2	+2	4	-	6	-
E/W 1	Range Line Rd. to N/S A	-	+2	2	-	2	-	2	-
	N/S A to N/S B	*	-	2	-	2	-	2	-
	N/S B to Community Blvd.	*	+2	2	+2	4	-	4	-
	Community Blvd. to Village Pkwy.	-	+2	2	+2	4	-	4	-

* These links are built partially in Phase I

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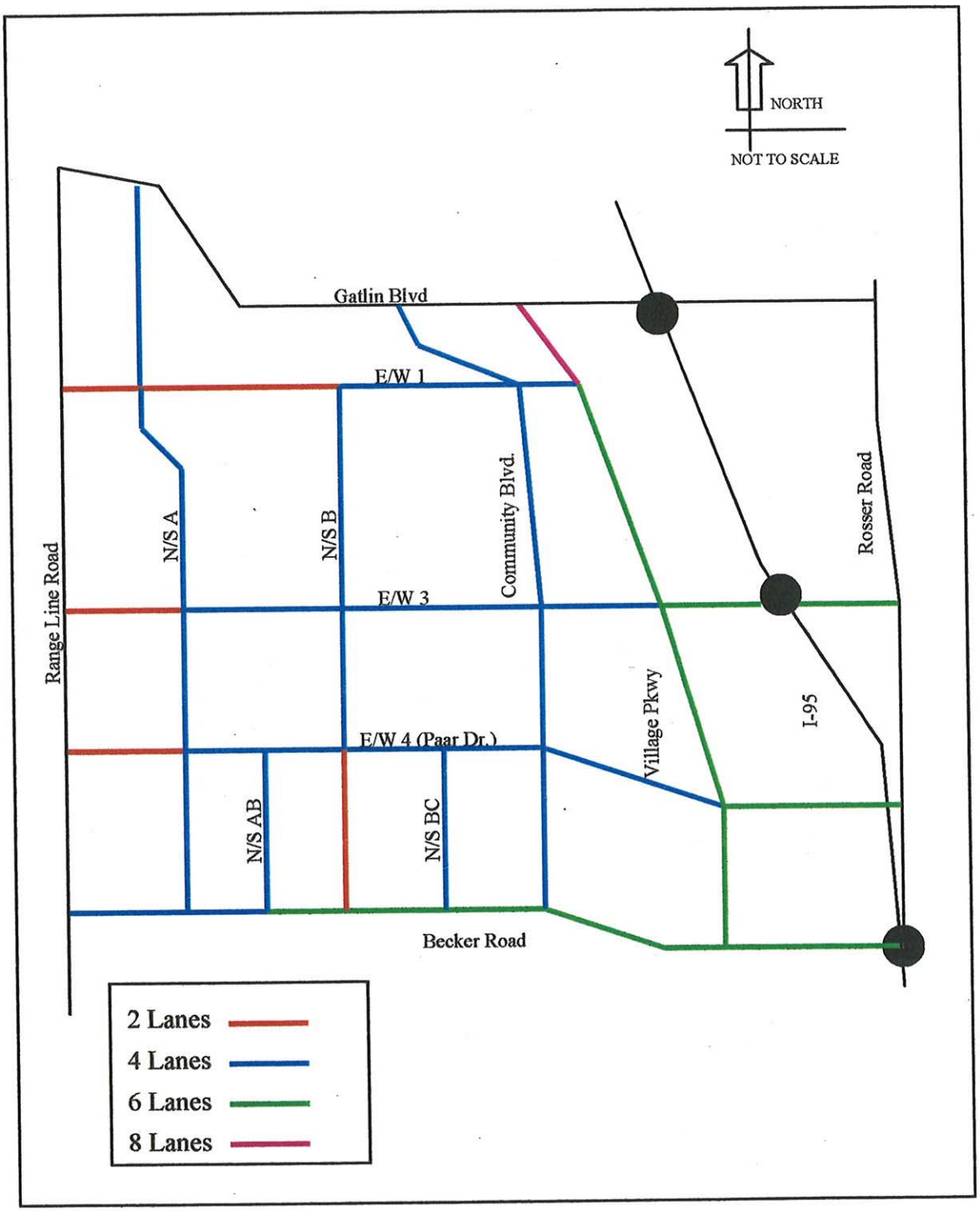

Figure 3. Internal Roadway System at Buildout
Western Annexation Study

EXTERNAL ROADWAY NETWORK

Background traffic for the external roadway network was estimated based on the following methodology:

a) Existing traffic compounded annually with a calculated growth rate; or
b) Model traffic adjusted by MOCF, K, and D factors for new roadways.

Table 6 summarizes growth factors used for each roadway segment for each phase of development. It must be noted that the segment of Port St. Lucie Blvd. between Gatlin Blvd. and US-1 shows no growth. This roadway is forecasted to reach capacity prior to 2025. Since there is no possibility for additional capacity due to physical constraints, no growth was applied to it. Even without growth, segments of the road are projected to fail due to traffic from the proposed DRI. New travel patterns will occur as the road reaches its capacity.

Appendix G contains the analysis for the external roadway network. Significantly impacted roadway links were analyzed for each phase of development. Roadway characteristics and adopted level of service are also included in the Appendix. Finally, figures showing required roadway improvements for each development phase are included in this appendix too.

Table 7 summarizes roadway needs for external roadways for each development phase. **Figure 4** presents both the internal and external roadway system at buildout in the year 2025.

Specific dates for these improvements have not been determined yet.

Table 6
Western Annexation Study
Growth Rates Summary - External Network

Roadway	Link	Phase I - 2010	Phase II - 2015	Phase III - 2020	Phase IV - 2025
Range Line	Martin Hwy. to Becker Rd.	1.0%	1.0%	1.0%	1.0%
	Becker Rd. to E/W 4 (Paar Dr.)	1.0%	1.0%	1.0%	1.0%
	E/W 4 (Paar Dr.) to E/W 3	-	1.0%	1.0%	1.0%
	E/W 3 to E/W 1	1.0%	1.0%	1.0%	1.0%
	E/W 1 to Gatlin Blvd.	1.0%	1.0%	1.0%	1.0%
	Gatlin Blvd. to West Virginia Blvd.	1.0%	1.0%	-	1.0%
	West Virginia Blvd. to Glades Cut-Off Rd.	1.0%	1.0%	-	1.0%
Glades Cut-Off Rd.	Range Line / CR 609 to N/S A	-	1.0%	-	-
	N/S A to Commerce Center Pkwy.	-	1.0%	1.0%	1.0%
Commerce Center Pkwy.	West Virginia Blvd. to St. Lucie West Blvd.	-	-	-	-
	St. Lucie West Blvd. to Glades Cut-Off Rd.	-	-	-	1.0%
I-95	Martin Hwy. to Becker Rd.	-	1.0%	1.0%	1.0%
	Becker Rd. to E/W 3	-	-	-	1.0%
	E/W 3 to Gatlin Blvd.	-	-	-	1.0%
	Gatlin Blvd. to West Virginia Blvd.	1.0%	1.0%	1.0%	1.0%
	West Virginia Blvd. to St. Lucie West Blvd.	1.0%	1.0%	1.0%	1.0%
	St. Lucie West Blvd. to Midway Rd.	-	1.0%	1.0%	1.0%
NW Peacock Blvd. Loop	St. Lucie West Blvd. to California Blvd.	1.0%	1.0%	1.0%	1.0%
Rosser Blvd.	Becker Rd. to Paar Dr.	2.0%	2.0%	2.0%	2.0%
	Paar Dr. to E/W 3	2.0%	2.0%	2.0%	2.0%
	E/W 3 to Gatlin Blvd.	-	2.0%	2.0%	2.0%
California Blvd.	Savonna Blvd. to Del Rio Blvd.	-	-	3.0%	1.0%
	West Virginia Blvd. to St. Lucie West Blvd.	-	3.5%	3.0%	1.0%
Savona Blvd.	Paar Dr. to Gatlin Blvd.	-	-	-	3.0%
	Gatlin Blvd. to California Blvd.	-	3.0%	3.0%	3.0%
Cashmere Blvd.	West Virginia Blvd. to St. Lucie West Blvd.	-	-	-	1.0%
Port St. Lucie Blvd.	Becker Rd. to Paar Dr.	-	3.5%	2.5%	2.5%
	Paar Dr. to Darwin Blvd.	3.5%	3.5%	2.5%	2.5%
	Darwin Blvd. to Gatlin Blvd.	3.5%	3.5%	2.5%	2.5%
	Gatlin Blvd. to Del Rio Blvd.	**0.0%**	**0.0%**	**0.0%**	**0.0%**
	Del Rio Blvd. to Bayshore Blvd.	0.0%	0.0%	0.0%	0.0%
	Bayshore Blvd. to Airoso Blvd.	-	0.0%	0.0%	0.0%
	Airoso Blvd. to Southbend Blvd./Floresta Dr.	-	0.0%	0.0%	0.0%
	Southbend Blvd./Floresta Dr. to Midport Rd.	-	**0.0%**	**0.0%**	**0.0%**
	Midport Rd. to US-1	-	-	0.0%	0.0%
Bayshore Blvd.	Oakridge Blvd. to Port. St. Lucie Blvd.	-	-	1.0%	-
	Prima Vista Blvd. to Selvitz Rd.	-	-	-	2.0%
Airoso Blvd.	West Virginia Dr. to Prima Vista Blvd.	-	-	-	1.0%
Southbend Blvd.	Becker Rd. to Oakridge Blvd.	-	-	1.0%	1.0%
US-1	Lennard Rd. to Port St. Lucie Blvd.	-	-	-	0.0%
SR 714/Martin Hwy	I-95 to Port St. Lucie Blvd.	-	5.0%	5.0%	5.0%
	Port St. Lucie Blvd. to Turnpike	5.0%	5.0%	-	5.0%
CR 714	Turnpike to High Meadows Ave.	-	2.0%	2.0%	2.0%
	High Meadows Ave. to Berry Ave.	-	2.0%	2.0%	2.0%
Becker Rd.	I-95 to Rosser Rd.	5.5%	5.0%	4.5%	4.0%
	Rosser Blvd. to Savona Blvd.	5.5%	5.0%	4.5%	4.0%
	Savona Blvd. to Port St. Lucie Blvd.	5.5%	5.0%	4.5%	4.0%
	Port St. Lucie Blvd. to Darwin Blvd.	-	8.0%	6.5%	3.5%
	Darwin Blvd. to Turnpike	-	8.0%	6.5%	3.5%
	Turnpike to Southbend Blvd.	10.0%	12.0%	10.5%	7.5%
	Southbend Blvd. to Gilson Rd.	-	-	10.5%	7.5%
Paar Dr.	Rosser Blvd. to Savona Blvd.	1.0%	1.0%	1.0%	1.0%
	Savona Blvd. to Port St. Lucie Blvd.	1.0%	1.0%	1.0%	1.0%
Gatlin Blvd.	I-95 to Rosser Blvd.	8.0%	4.0%	2.5%	1.0%
	Rosser Blvd. to Savona Blvd.	8.0%	4.0%	2.5%	1.0%
	Savona Blvd. to Port St. Lucie Blvd.	8.0%	4.0%	2.5%	1.0%
Westmoreland Blvd.	Port St. Lucie Blvd. to US-1	-	-	-	2.0%
Oakridge Blvd.	Bayshore Blvd. to Southbend Blvd.	-	-	1.0%	1.0%
St. Lucie W/ Prima Vista Blvd.	Commerce Center Pkwy. to I-95	-	0.0%	-	0.0%
	I-95 to NW Peacock Blvd.	-	0.0%	0.0%	0.0%
	NW Peacock Blvd. to California Blvd.	-	-	0.0%	0.0%
	California Blvd. to Cashmere Rd.	-	-	-	0.0%
	Airoso Blvd. to Floresta Dr.	-	-	-	0.0%
Midway Rd.	Commerce Center Pkwy. to I-95	-	-	-	3.0%
	I-95 to Glades Cut-Off Rd.	-	3.0%	-	3.0%
	Torino Pkwy to Selvitz Rd.	-	3.0%	-	3.0%
	Selvitz Rd. to S. 25th St.	-	-	1.0%	1.5%
	S. 25th St. to Sunrise Blvd.	-	-	-	1.0%
	Sunrise Blvd. to Oleander Ave.	-	-	-	1.0%

- Link was not analyzed in this phase.

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12798 Forest Hill Boulevard, Suite 303

Table 7
Western Annexation Study
Number of Lanes and Improvements by Phase - External Network

Roadway	Link	Phase I - 2010		Phase II - 2015		Phase III - 2020		Phase IV - 2025	
		Lanes	Improvements	Lanes	Improvements	Lanes	Improvements	Lanes	Improvements
Range Line	Martin Hwy. to Becker Rd.	2		2		2		2	+2
	Becker Rd. to E/W 4 (Paar Dr.)	2		2		2		2	
	E/W 4 (Paar Dr.) to E/W 3	2		2		2		2	
	E/W 3 to E/W 1	2		2		2		2	
	E/W 1 to Gatlin Blvd.	2		2		2		2	
	Gatlin Blvd. to West Virginia Blvd.	2		2		-		2	
	West Virginia Blvd. to Glades Cut-Off Rd.	2		2		-		2	
Glades Cut-Off Rd.	Range Line / CR 609 to N/S A	-		2		-		-	
	N/S A to Commerce Center Pkwy.	-		2		2		2	
N/S A	Gatlin Blvd. to E/W XY	2		2		2	+2	4	
	E/W XY to West Virginia Blvd.	-		2		2	+2	4	
	West Virginia Blvd. to Glades Cut-Off Rd.	-		2		2		2	
Community Blvd.	Gatlin Blvd. to E/W XY	2		2		2		2	
Commerce Center Pkwy.	West Virginia Blvd. to St. Lucie West Blvd.	-		-		4		4	
	St. Lucie West Blvd. to Glades Cut-Off Rd.	-		-		-		2	
Village Pkwy.	Gatlin Blvd. to E/W XY	4		4		4	+2	6	
	E/W XY to West Virginia Blvd.	4		4		4		4	+2
I-95	Martin Hwy. to Becker Rd.	-		6		6		6	
	Becker Rd. to E/W 3	-		-		-		6	
	E/W 3 to Gatlin Blvd.	-		-		-		6	
	Gatlin Blvd. to West Virginia Blvd.	6		6		6		6	
	West Virginia Blvd. to St. Lucie West Blvd.	6		6		6		6	
	St. Lucie West Blvd. to Midway Rd.	-		6		6		6	
NW Peacock Blvd. Loop	St. Lucie West Blvd. to California Blvd.	2		2		2		2	
Rosser Blvd.	Becker Rd. to Paar Dr.	2		2	+2*	4		4	
	Paar Dr. to E/W 3	2		2	+2*	4		4	
	E/W 3 to Gatlin Blvd.	2		2	+2*	4		4	
California Blvd.	Savonna Blvd. to Del Rio Blvd.	-		-		2		2	
	West Virginia Blvd. to St. Lucie West Blvd.	-		2		2	+2	4	
Savona Blvd.	Paar Dr. to Gatlin Blvd.	-		-		-		2	
	Gatlin Blvd. to California Blvd.	-		2		2		2	
Cashmere Blvd.	West Virginia Blvd. to St. Lucie West Blvd.	-		-		-		2	+2
Port St. Lucie Blvd.	Martin Hwy. to Becker Rd.	2		2	+2	4		4	
	Becker Rd. to Paar Dr.	-		2		2		2	
	Paar Dr. to Darwin Blvd.	2		2		2		2	+2
	Darwin Blvd. to Gatlin Blvd.	4		4		4		4	+2
	Gatlin Blvd. to Del Rio Blvd.	6		6		6		6	?
	Del Rio Blvd. to Bayshore Blvd.	6		6		6	?	6	?
	Bayshore Blvd. to Airoso Blvd.	-		6		6		6	
	Airoso Blvd. to Southbend Blvd./Floresta Dr.	-		6		6		6	
	Southbend Blvd./Floresta Dr. to Midport Rd.	-		6	?	6	?	6	?
	Midport Rd. to US-1	-		-		6		6	
Bayshore Blvd.	Oakridge Blvd. to Port. St. Lucie Blvd.	-		-		2	+2	-	
	Prima Vista Blvd. to Selvitz Rd.	-		-		-		2	+2
Airoso Blvd.	West Virginia Dr. to Prima Vista Blvd.	-		-		-		4	
Southbend Blvd.	Becker Rd. to Oakridge Blvd.	-		-		2		2	
Gilson Rd.	Mapp Rd/Murphy Rd. to Becker Rd.	-		2		2		2	

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Wellington, FL 33414-4704
Phone: (561) 795-0678 Telefax: (561) 795-0230
http://www.mtpgroup.net

Table 7
Western Annexation Study
Number of Lanes and Improvements by Phase - External Network

Roadway	Link	Phase I - 2010		Phase II - 2015		Phase III - 2020		Phase IV - 2025	
		Lanes	Improvements	Lanes	Improvements	Lanes	Improvements	Lanes	Improvements
US-1	Lennard Rd. to Port St. Lucie Blvd.	-		-		-		8	
SR 714/Martin Hwy	I-95 to Port St. Lucie Blvd.	-		2		2		2	
	Port St. Lucie Blvd. to Turnpike	2		2	+2	-		4	
CR 714	Turnpike to High Meadows Ave.	-		2	+2	4		4	
	High Meadows Ave. to Berry Ave.	-		2	+2	4		4	
Becker Rd.	I-95 to Rosser Rd.	4		4		4	+2	6	
	Rosser Blvd. to Savona Blvd.	4		4		4		4	
	Savona Blvd. to Port St. Lucie Blvd.	4		4		4		4	
	Port St. Lucie Blvd. to Darwin Blvd.	-		4		4		4	
	Darwin Blvd. to Turnpike	-		4		4		4	
	Turnpike to Southbend Blvd.	2		2	+2	4		4	
	Southbend Blvd. to Gilson Rd.	-		-		2	+2	4	
Paar Dr.	Rosser Blvd. to Savona Blvd.	2		2		2	+2	4	
	Savona Blvd. to Port St. Lucie Blvd.	2		2		2	+2	4	
Gatlin Blvd.	Range Line Rd. to N/S A	-		4		4		4	
	N/S A to Community Blvd.	4		4		4		4	
	Community Blvd. to Village Pkwy.	4		4		4		4	
	Village Pkwy. to I-95	6		6	+2	8		8	
	I-95 to Rosser Blvd.	6		6		6		6	
	Rosser Blvd. to Savona Blvd.	6		6		6		6	
	Savona Blvd. to Port St. Lucie Blvd.	6		6		6		6	
Westmoreland Blvd.	Port St. Lucie Blvd. to US-1	-		-		-		2	
Oakridge Blvd.	Bayshore Blvd. to Southbend Blvd.	-		-		2	+2	4	
E/W XY	N/S A to Community Blvd.	2		2		2		2	
	Community Blvd. to Village Pkwy.	2		-		2		-	
West Virginia Dr.	Range Line Rd. to N/S A	-		4		4		4	
	N/S A to Village Pkwy.	-		4		4		4	
	Village Pkwy. to Commerce Center Pkwy.	4		4	+2	6		6	
	Commerce Center Pkwy. to I-95	6		6		6		6	
	I-95 to California Blvd.	-		6		6		6	
	California Blvd. to Cashmere Rd.	-		6		6		6	
	Cashmere Rd. to Bayshore Blvd.	-		6		6		6	
	Bayshore Blvd. to Airoso Blvd.	-		-		6		6	
	Airoso Blvd. to Floresta Dr.	-		-		-		6	
	Floresta Dr. to Midport Rd.	-		-		-		6	
St. Lucie W/ Prima Vista Blvd.	Commerce Center Pkwy. to I-95	-		4		-		4	
	I-95 to NW Peacock Blvd.	-		6		6		6	
	NW Peacock Blvd. to California Blvd.	-		-		4	+2	-	
	California Blvd. to Cashmere Rd.	-		-		-		4	+2
	Airoso Blvd. to Floresta Dr.	-		-		-		4	+2
Midway Rd.	Commerce Center Pkwy. to I-95	-		-		-		2	
	I-95 to Glades Cut-Off Rd.	-		-		-		4	
	Torino Pkwy to Selvitz Rd.	-		2	+2	-		4	
	Selvitz Rd. to S. 25th St.	-		-		2	+2	4	
	S. 25th St. to Sunrise Blvd.	-		-		-		2	+2
	Sunrise Blvd. to Oleander Ave.	-		-		-		2	+2

- Link was not analyzed in this phase.
* Included in the model / IJR

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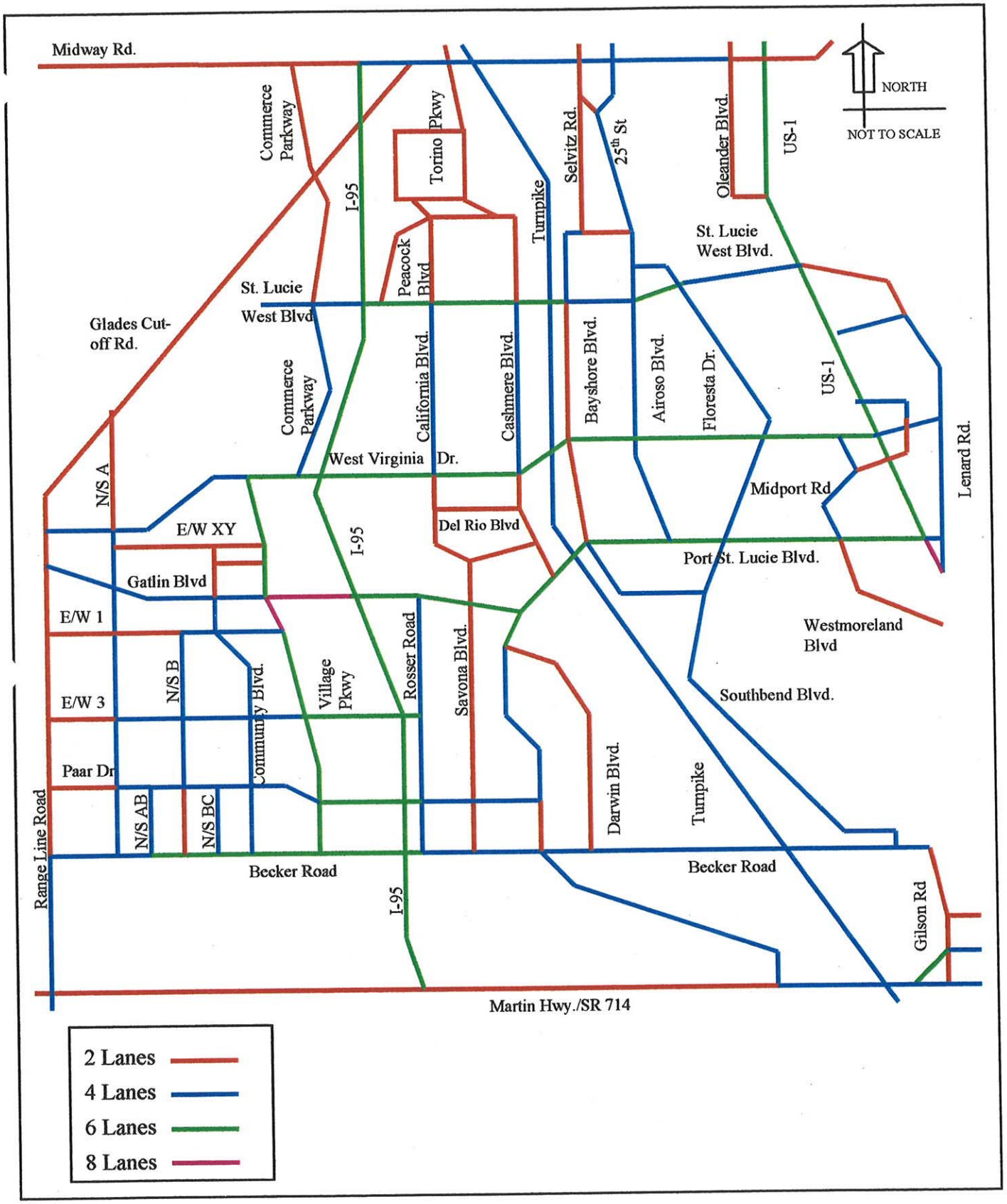


Figure 4. Internal and External Roadways at Buildout
Western Annexation Study

ROADWAY NEEDS

The analysis has identified roadway needs to maintain both the internal and external roadway network at the adopted level of service.

As presented in **Figure 3**, the western annexation area requires a good network of streets to support the proposed development. The eight-lane sections on Village Parkway and Gatlin Boulevard are of concern. Improvements may be required at the I-95/Gatlin Boulevard interchange to accommodate the required eight lanes along Gatlin Boulevard. This interchange should be monitored to determine improvements needed, if any, to maintain the adopted level of service.

The external roadway network requires a significant amount of improvements as well as new facilities with the majority of improvements occurring within a ten year period. Major roadway needs for the first two phases of development follow:

Year 2010

- Interchange of Becker Road and the Florida Turnpike.
- West Virginia Boulevard between Village Parkway and Floresta Drive including the interchange with I-95 and an overpass with the Florida Turnpike.
- Becker Road from its present terminus west to Range Line Road including the interchange with I-95.
- Port St. Lucie Boulevard extension to SR 714 (Martin County) with a two-lane cross-section.
- Southbend Boulevard between Port St. Lucie Boulevard and Becker Road with a two-lane cross-section (completed).

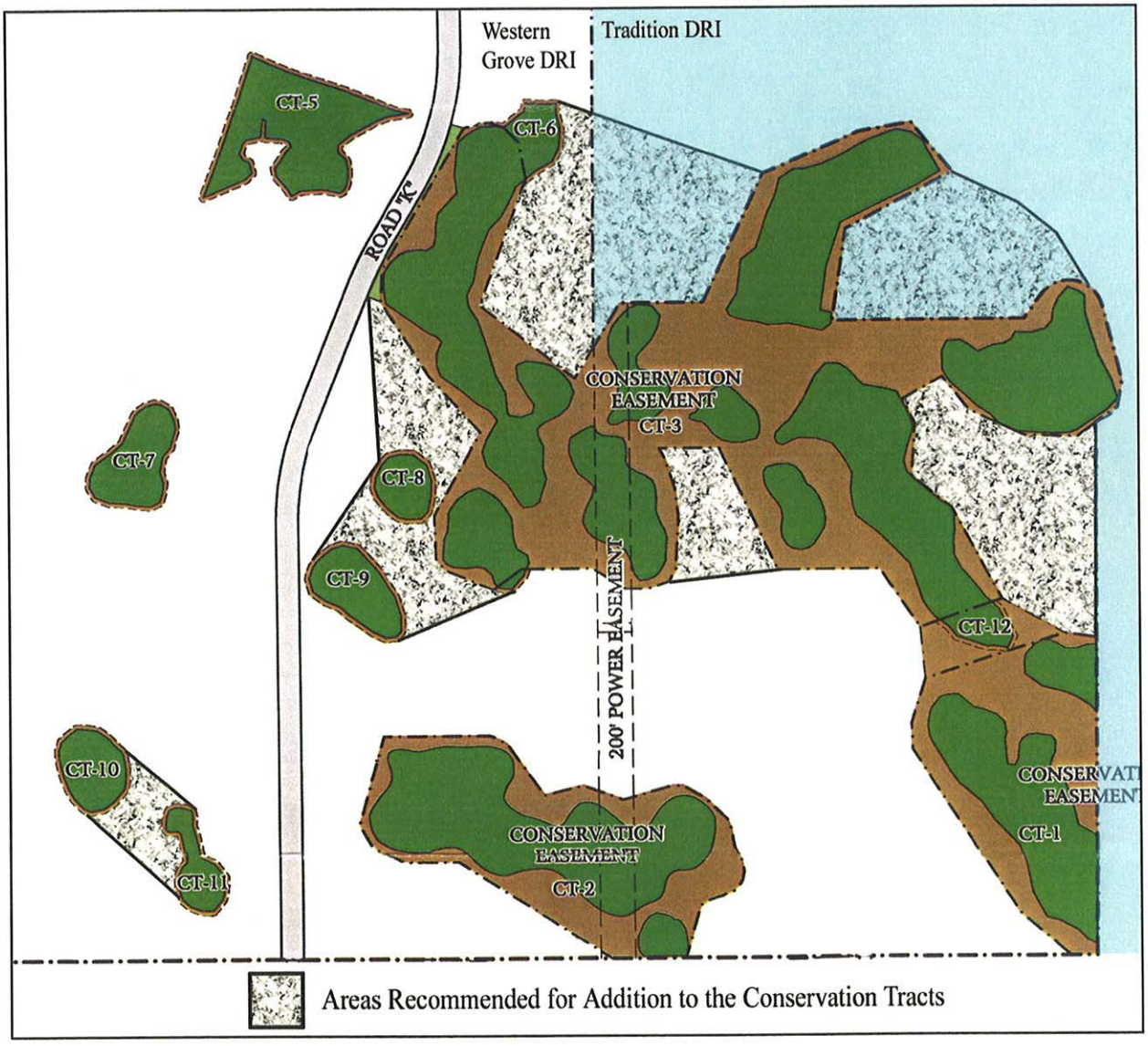
Year 2015

- West Virginia Boulevard between Floresta Drive and Lennard Road including a bridge over the St. Lucie River.
- Rosser Boulevard widening to a four-lane-divided cross-section.
- SR 714/Martin Highway/CR 714 (Martin County) between Port St. Lucie Boulevard and Berry Avenue with a four-lane-divided cross-section.
- Gatlin Boulevard between Village Parkway and I-95 with an eight-lane-divided cross-section.

Two additional bridges over I-95 in the segment between Becker Road and Gatlin Boulevard are required. One of these also includes an interchange with I-95. Other improvements, including six-lanes along St. Lucie West Boulevard, are required to maintain the roadway network at adopted levels of service.

APPENDIX J

Areas Recommended for Addition to the Conservation Tracts



APPENDIX K

Two Ways to Grow

If what you are selling is privacy and exclusivity, then every new house is a degradation of the amenity. However, if what you are selling is community, then every new house is an enhancement of the asset.

- Vince Graham, *Addressing the National Association of Home Builders*, (1997)

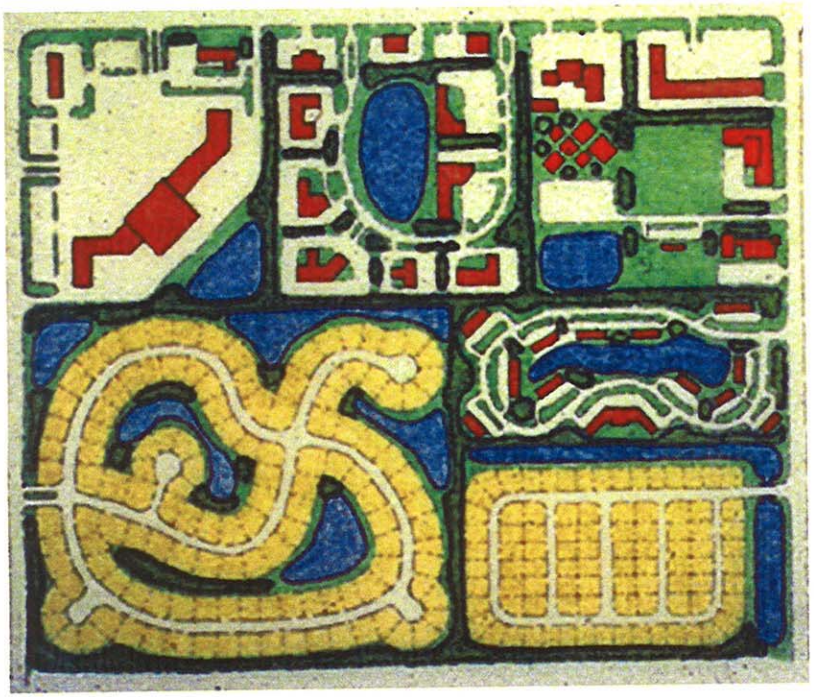
There are basically two different models of urban growth: the traditional neighborhood and suburban sprawl. They are polar opposites in appearance, function, and character: they look different, they act differently, and they affect us in different ways.

The traditional neighborhood was the fundamental form of European settlement on this continent through the Second World War, from St. Augustine to Seattle. It continues to be the dominant pattern of habitation outside the United States, as it has been throughout recorded history. The traditional neighborhood – represented by mixed-use, pedestrian-friendly communities of varied population, either standing free as villages or grouped into towns and cities – has proved to be a sustainable form of growth. It allowed us to settle the continent without bankrupting the country or destroying the countryside in the process.

Suburban sprawl, now the standard North American pattern of growth, ignores historical precedent and human experience. It is an invention, conceived by architects, engineers, and planners, and promoted by developers in the treat *sweeping aside of the old* that occurred after the Second World War. Unlike the traditional neighborhood model, which evolved organically as a response to human needs, suburban sprawl is an idealize artificial system. it is not without a certain beauty: it is rational, consistent, and comprehensive. Its performance is largely predictable. It is an outgrowth of modern problem solving: a system for living. Unlike the traditional neighborhood, sprawl is not healthy growth; it is essentially self-destructive. Even at relatively low population densities, sprawl tends not to pay for itself financially and consumes land at an alarming rate, while producing insurmountable traffic problems and exacerbating social inequity and isolation. These particular outcomes were not predicted. Neither was the toll that sprawl exacts from America's cities and towns, which continue to decant slowly into the countryside. As the ring of suburbia grows around most of our cities, so grows the void at the center. Even while the struggle to revitalize deteriorated downtown neighborhoods and business districts continues, the inner ring of suburbs is already at risk. Losing residents and businesses to fresher locations on the new suburban edge.

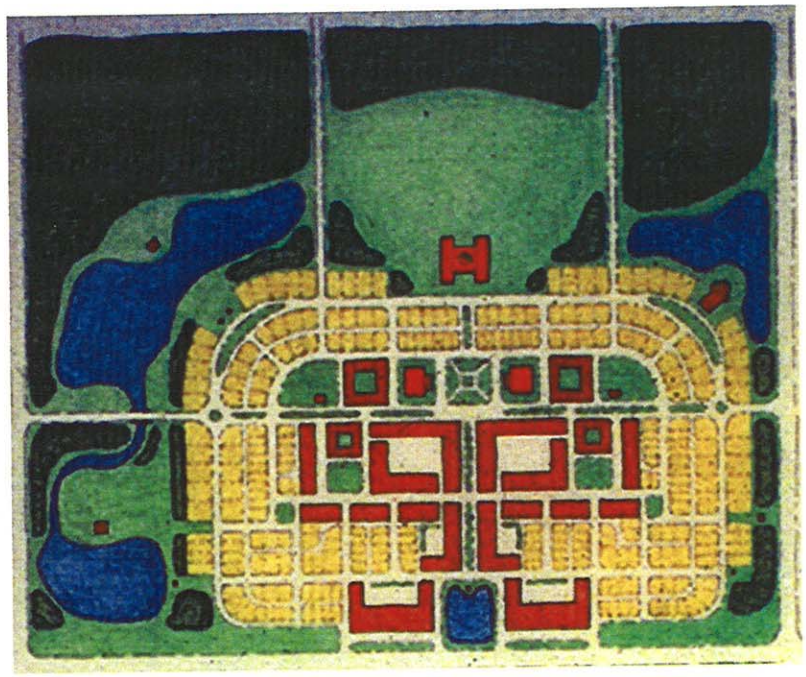
Regional Impacts of Sprawl

Non-Preferred Form



- 30% more energy
- 2 to 4 times poorer water quality
- 25% to 50 % more time in our cars
- 30% to 40% more land used
- Public transportation is not an option
- 20% to 25% of your income spent on cars
- Kids won't be able to walk to school

Preferred Form



- Sprawl housing products underperform able comparable New Urbanist products on sales price and absorption
- Road building will take priority over the arts, culture, care of the elderly and education of your children
- Fiscal savings of $606 million through 2025
- Capital cost savings of $4.19 billion through 2025

APPENDIX L

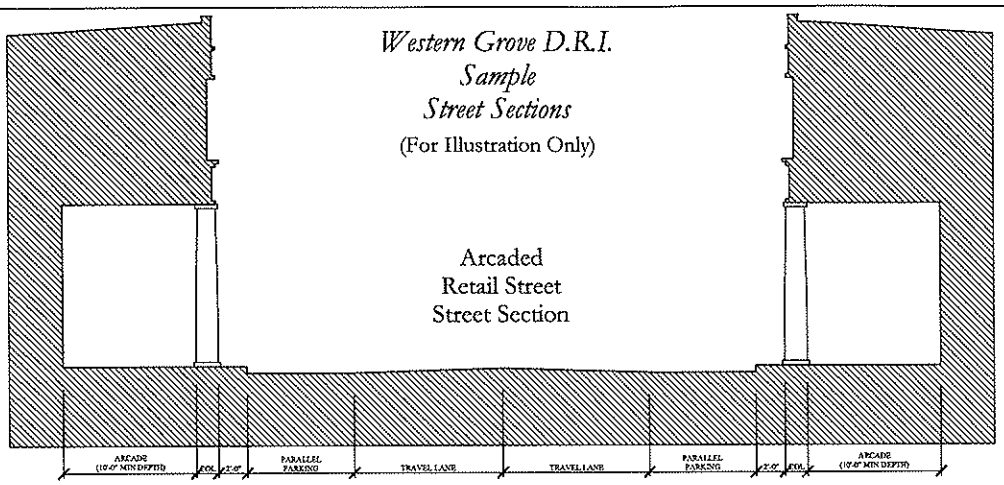
Compendium of Street Sections

For the

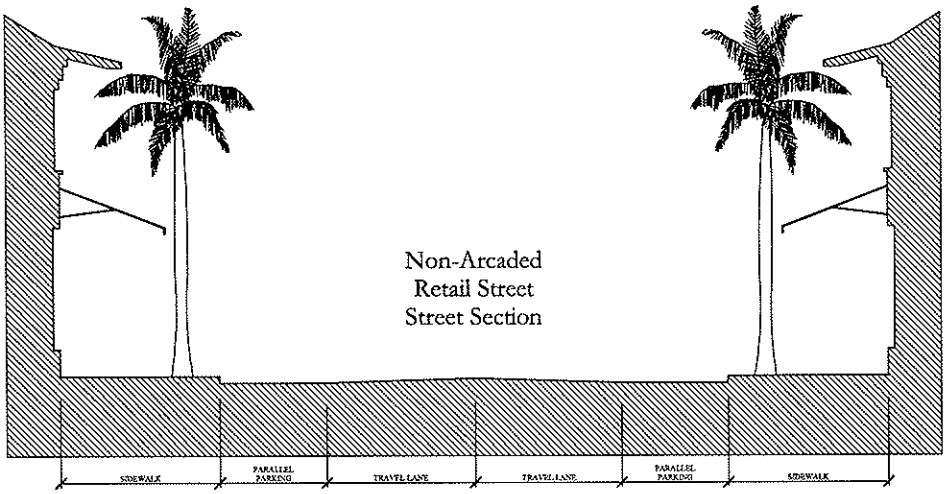
Western Grove DRI

Western Grove D.R.I.
Sample
Street Sections
(For Illustration Only)

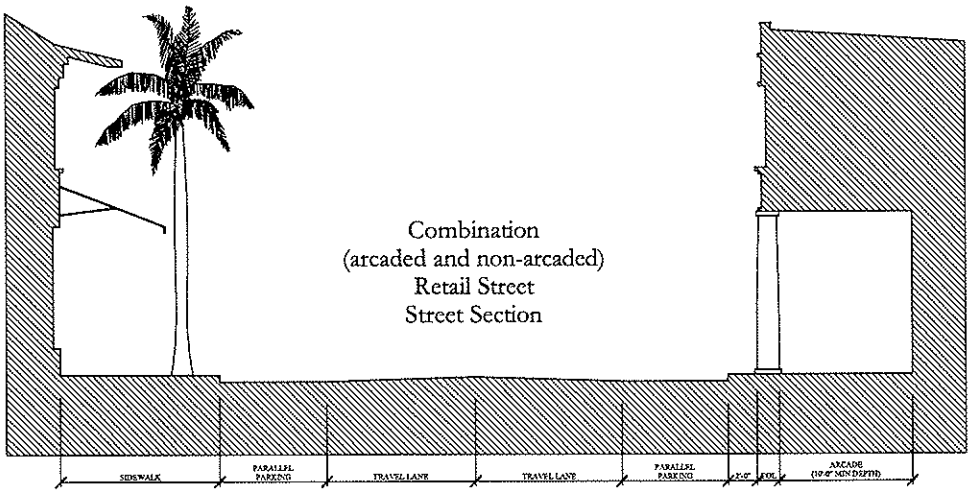
Arcaded
Retail Street
Street Section



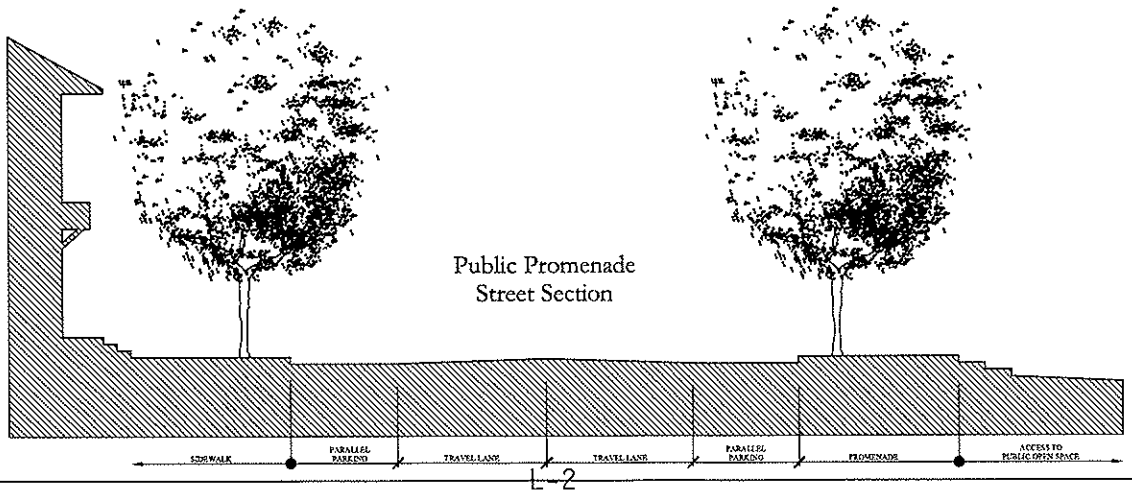
Non-Arcaded
Retail Street
Street Section



Combination
(arcaded and non-arcaded)
Retail Street
Street Section

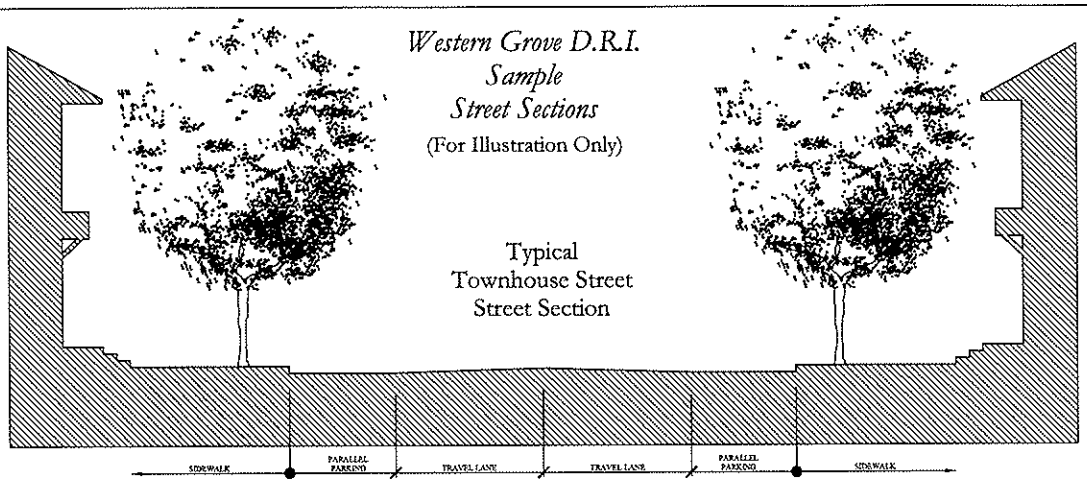


Public Promenade
Street Section

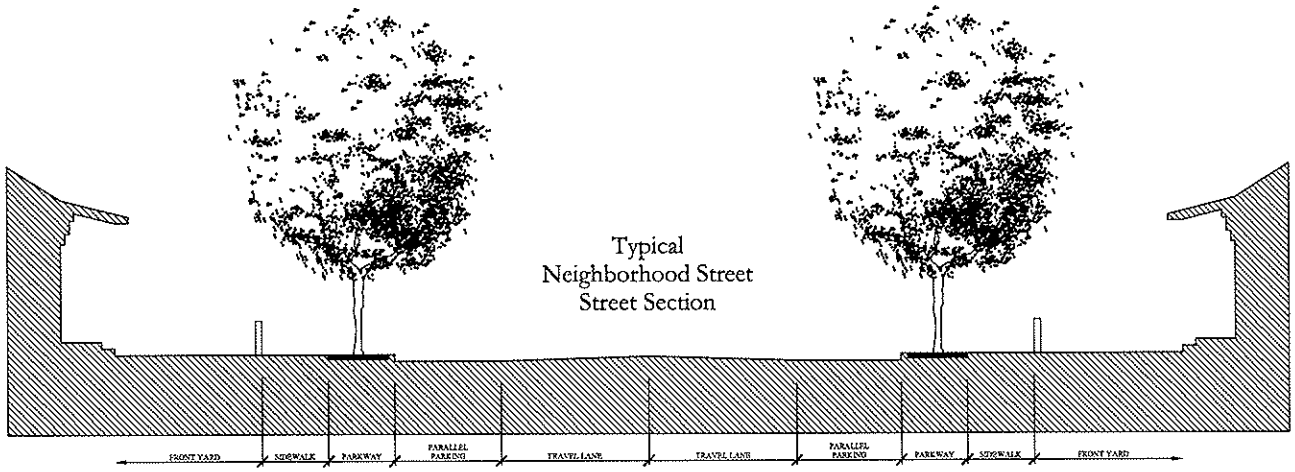


Western Grove D.R.I.
Sample
Street Sections
(For Illustration Only)

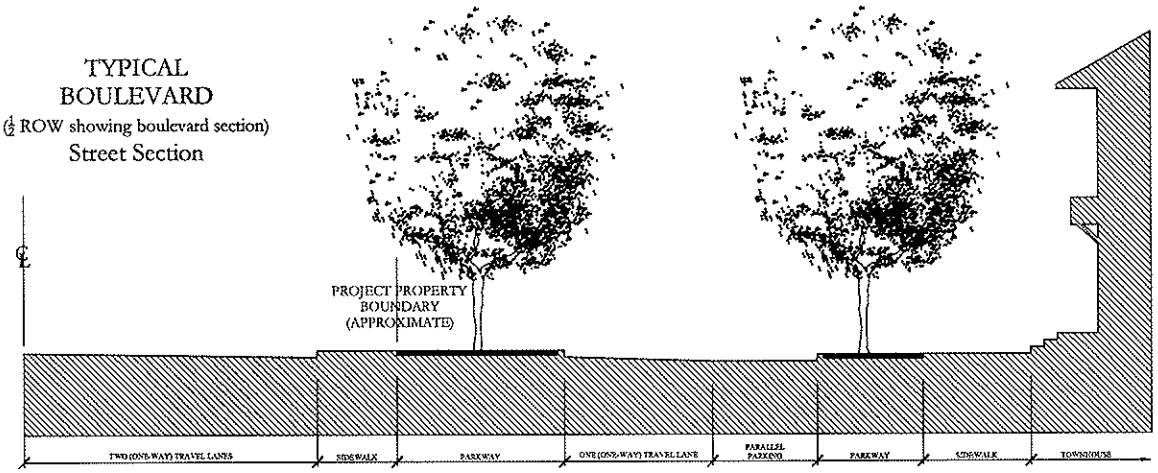
Typical
Townhouse Street
Street Section



Typical
Neighborhood Street
Street Section

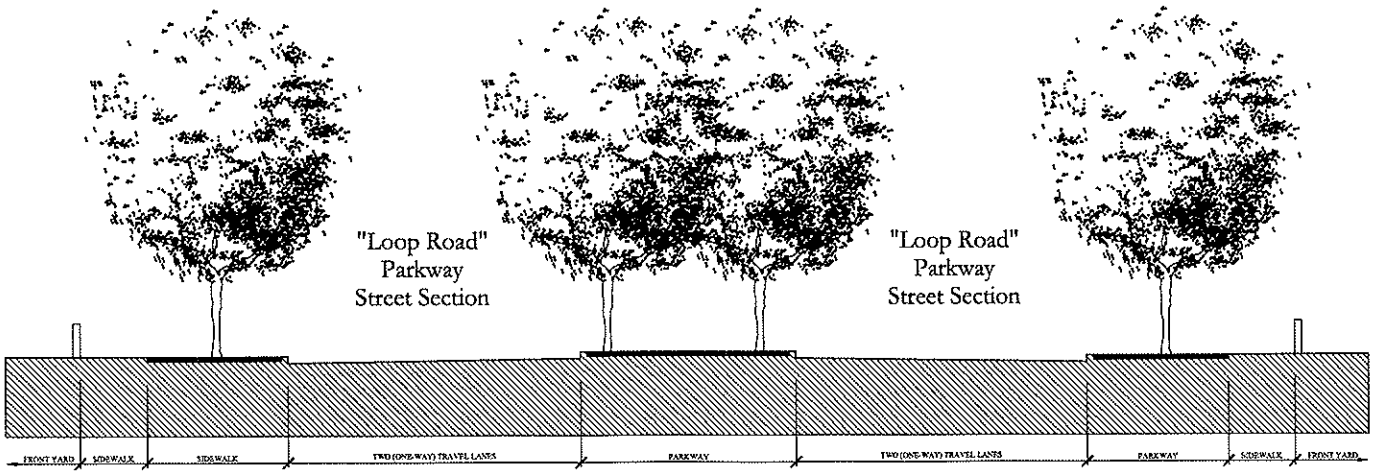


TYPICAL
BOULEVARD
(½ ROW showing boulevard section)
Street Section



"Loop Road"
Parkway
Street Section

"Loop Road"
Parkway
Street Section

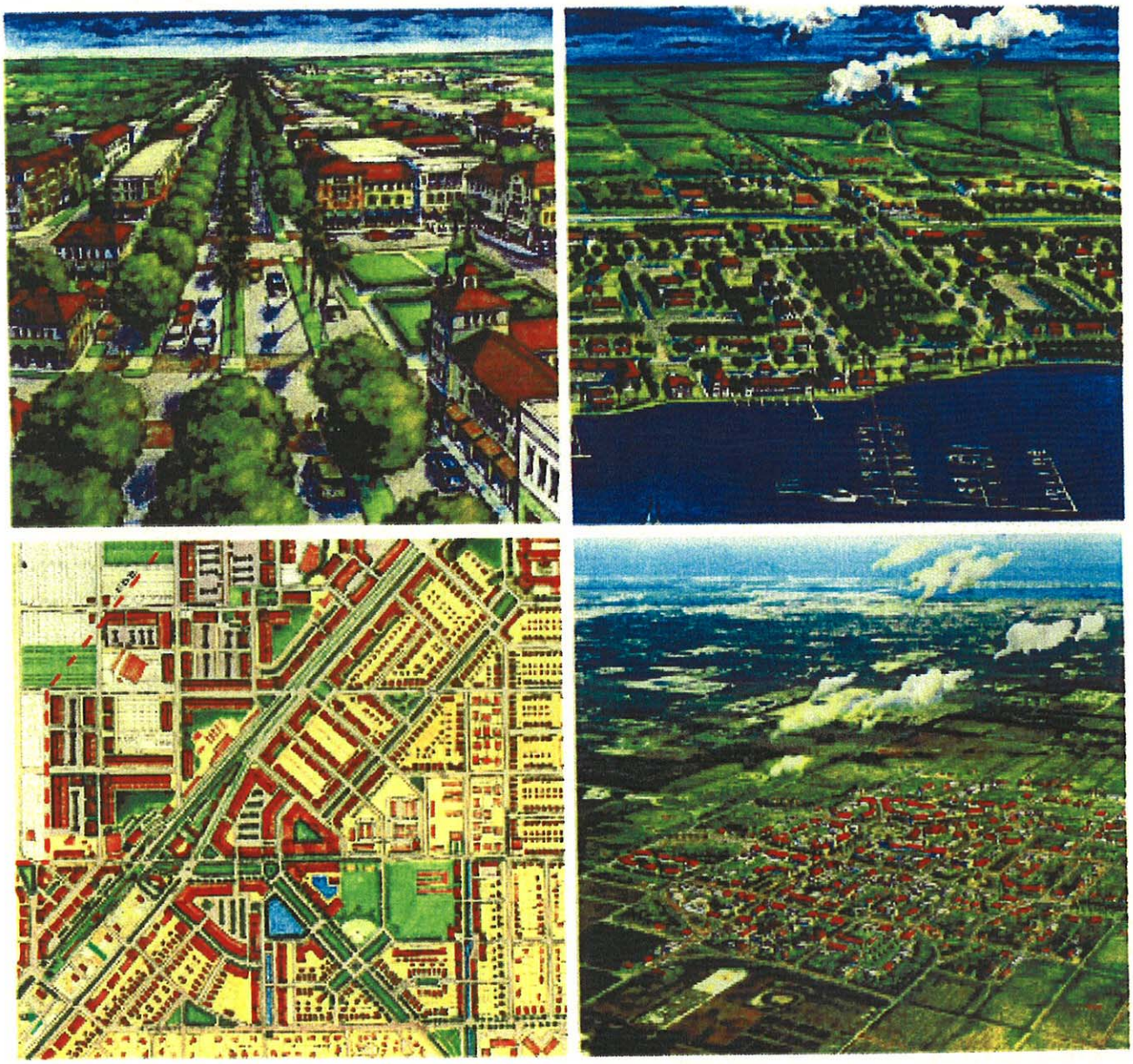


APPENDIX M

Components of the Traditional Urban Neighborhood Authentic Mixed Use for DRIs

COMPONENTS OF THE TRADITIONAL URBAN NEIGHBORHOOD

AUTHENTIC MIXED USE FOR DRIS



May 2004

M-2

Treasure Coast Regional Planning Council

COMPONENTS
Of the
TRADITIONAL URBAN NEIGHBORHOOD

American neighborhoods and cities are organisms, which are as complex and unique as the individuals who reside in them. Like people, places grow at different times, at different scales, with differing values and a varying sense of purpose. While it is impossible to generically characterize the human ethos and spirit, there are consistent basic needs like food, water, and shelter, which are fundamental to human existence.

Cities, towns and neighborhoods also require basic elements if they are to provide a memorable and sustainable habitat for their residents. These elements, while they may vary in scale and character from place to place, are consistently found in traditional development patterns. Listed below are the basic components which make up the traditional urban neighborhood.

I. Neighborhood Size

a. The neighborhood is scaled upon a five-minute walking radius (1,350 feet) as measured from the approximate center of the neighborhood.

b. In general, the neighborhood has well-defined edges, and should range between 40 - 150 acres in size. This size may vary depending upon physical and geological conditions.

c. Adjacent neighborhoods are connected with a series of streets detailed to encourage pedestrian and bicycle traffic.

II. Neighborhood Center

a. Each neighborhood has a recognizable center in the form of a public square, a park, a green, or a plaza.

b. The neighborhood center is faced by the fronts of buildings, which are sited to best define the public open space. A minimum of 80% of these buildings has a minimum height of 2 stories in order to achieve adequate spatial definition.

III. Streets, Blocks, and Alleyways

a. The basic building blocks of the neighborhood are the street, the block, and the alleyway. Each neighborhood has a fine-grained network of streets and blocks. Alleyways are encouraged in residential areas

(especially where higher densities occur) and are provided in the mixed-use areas of the neighborhood.

b. Streets are detailed with sidewalks, on-street parallel parking, regularly spaced street trees and pedestrian-scaled lighting. Street trees are placed between the pedestrian and the roadway in parkways or in tree grates.

c. Blocks are scaled to accommodate a variety of building types and encourage pedestrian traffic. Typical block dimensions range between 300' – 500' on a block face and do not exceed 600' on any single block face. Single blocks do not exceed a total perimeter distance of 2,000'.

d. Alleyways provide access for rear-loaded parking, municipal services, loading and unloading of goods, and allows the street face to be inhabited by buildings and people. In residential areas, alleyways provide private entrances and parking for rental units located behind single-family homes.

e. Streets, blocks, and alleyways provide a continuous network of vehicular, pedestrian, and bicycle circulation and are designed to accommodate each in a meaningful way.

f. A hierarchy of streets is provided in the neighborhood. Larger streets have larger buildings and sidewalks; smaller streets have smaller buildings and sidewalks.

g. Streets are designed so the buildings facing a street are proportional to the width of that street. The preferred ratio of height to width proportion is 1:1.5 (1 unit in height to 1.5 units in width).

h. Sidewalks are continuous, provided on both sides of every street, and are a minimum dimension of 5'-0" wide on residential streets and a minimum of 10'-0" on mixed-use streets.

IV. Public Open Spaces

a. Each neighborhood has at least one primary, centrally located public plaza, green, park, or square. This space is faced by the fronts of buildings and is detailed with pedestrian-scaled street lighting, regularly spaced street trees, and street furnishings such as benches and fountains.

b. Streets and public open spaces are accessible to the public.

c. Public open spaces, including waterfronts, parkways and golf courses have public edges so these amenities are not wholly privatized.

d. Each neighborhood has a series of secondary and tertiary public open spaces, which are linked to one another by streets and parkways. Every residential unit is within a five-minute walk of a neighborhood park, green, square, or plaza.

V. Civic and Public Buildings

a. Civic and public buildings are sited on locations of high public visibility and importance. These locations include street terminations, parkways and greens, squares, important intersections, and other special sites.

b. Civic and public buildings include, but are not limited to, municipal buildings, places of worship, meeting halls, hotels and clubhouses, gazebos and other forms of garden architecture.

VI. Mix of Uses

a. Neighborhoods accommodate a mix of uses to support the daily needs of the neighborhood. Varying uses can occur in mixed-use buildings or within walkable distances of each other; not every building must have multiple uses. However, proximity alone is not enough. Streets must be detailed so that pedestrians will walk to different uses.

b. Mixed-use buildings are designed so they can accommodate a variety of uses over time as the local market dictates.

VII. Mix of Housing Prices

a. Neighborhoods provide a variety of housing opportunities to accommodate varying housing prices.

b. The neighborhood provides home-ownership as well as rental housing opportunities in an integrated manner. Rental housing is not concentrated in segregated areas; they are dispersed and filtered into the general neighborhood fabric in a compatible way.

c. The use of accessory or "out" buildings to provide dispersed rental housing, or other accessory uses, within the single-family fabric is critical to the overall sustainability of the neighborhood.

VIII. Building Types

a. Housing types are defined by building typologies (single family, multi-family, townhouse, mixed-use, etc) so that they can be logically and fairly distributed throughout the neighborhood.

b. Building types of like scale, massing, and uses face one another on any given street. Differing building types may be placed back-to-back on a single block.

c. The primary entrance of every building directly faces a street, a square, a park, a plaza, or a green.

IX. Parking

a. All streets have on-street parking, which should be counted towards meeting parking requirements.

b. All surface parking lots are screened from the street view with buildings, garden walls, and/or landscaping.

c. Parking structures are located to the interior of the block and are completely screened by buildings with habitable uses for all floors.

d. All on-site parking is located behind the primary building façade. Civic, cultural, and clubhouse buildings are exempted from this provision.

e. For residential lots 50' wide or less, parking is accessed from the rear alleyway.

APPENDIX N

SouthArc, Inc.

Specializing in Archaeological/Historical Services
Members Register of Professional Archaeologists (RPA)
ACRA

RECEIVED
APR 11 2006
TREASURE COAST
REGIONAL PLANNING COUNCIL

March 10, 2005
254-05-02

Ms. Laura Kammerer
Florida Div. of Historical Resources
R. A. Gray Building
500 So. Bronough Street
Tallahassee, FL 32399-0250

Re: Western Grove, Cultural Resource Reconnaissance Survey, St. Lucie County

Dear Laura:

Attached please find a cultural resources reconnaissance survey report for the Western Grove project in St. Lucie County. The project was completed as part of the environmental permitting process. The survey was to satisfy Chapters 267 and 373, *Florida Statutes*, Florida's Coastal Management Program, and implementing state regulations for possible impacts to historic properties listed, or eligible for listing in the *National Register of Historic Places*, or otherwise of historic, architectural or archaeological value.

There are no previously recorded properties within the project tract. A surface examination and judgmental testing did not locate any evidence of archaeological resources. In general, the tract is dominated by citrus groves and open pastures with some wetland areas and has a low potential for archaeological resources. As a result, we believe that development of this tract is unlikely to impact any significant cultural resources which might be eligible for the *National Register*. We recommend that no further research be required prior to development.

3700 N.W. 91st Street, Suite D300, Gainesville, Florida 32606-7307 (352) 372-2633
Fax: (352) 378-3931 • www.southarc.com

As always we appreciate your review of this project. Please contact either me or Lucy if you have any questions or need any additional information.

Sincerely,

Martin F. Dickinson/aw

Martin F. Dickinson, M.A., RPA
President

enc.

cc: R. P. Manley, Canin

RECONNAISSANCE SURVEY
WESTERN GROVE
ST. LUCIE COUNTY, FLORIDA

SouthArc, Inc.
March 10, 2005

Project Identification:

Western Grove development, Tradition Development Company, L.L.C., St. Lucie County, FL (Figure 1).

Project Purpose:

The project was completed as part of the environmental permitting process. This project is in compliance with Chapters 267 and 373, *Florida Statutes*, Florida's Coastal Management Program, and implementing state regulations for possible impacts to historic properties listed, or eligible for listing in the *National Register of Historic Places*, or otherwise of historic, architectural or archaeological value.

Project Description:

Western Grove consists of approximately 1,585 acres in Sections 6, 7, 8, 17, and 18 of Township 37 South, Range 39 East in St. Lucie County (Figure 2 and 3). Approximately 300 acres of wetlands will be preserved with no impacts. The property is bounded on the west by Range Line Road. The north and south boundaries are arbitrary property lines, and the east boundary is comprised of an arbitrary property line and a power line corridor. The project is located west of the city of Port St. Lucie and south of the Range Line Road and Glades Cutoff Road intersection. Glades Cutoff Road is approximately ¾-mile to the north of the project area, while I-95 is approximately 3 miles east.

The region lies within the Green Ridge-Loxahatchee Karst section of the Eastern Flatwoods physiographic region of Florida (Brooks 1981). The Eastern Flatwoods is part of the coastal lowlands, which originated as a series of barrier islands and lagoons which parallel the Atlantic Coast. The natural environment of the Green Ridge-Loxahatchee Karst section is dominated by "poorly drained open flatwoods with cypress strands and heads" (Brooks 1981: 4). Shallow depressions originated from solution of the shell in the underlying shelly sands. Original elevations range from 20 feet in the depressions (relic lagoons or swales) to over 30 feet on ridges (relic islands or dunes) (Brooks 1981). The Western Grove tract is an area of relatively level relief, with elevations ranging from 25 to 29 feet in the project area (USGS 1983--Figure 2).

The soils within the project tract are part of the Pineda-Wabasso-Riviera association of poorly drained sandy to loamy soils (USDA 1980). The bulk of the property is Winder sand, depressional, Riviera sand, depressional, Pople sand, and Pineda sand (Figure 4). All of these soils are classified as poorly drained and are located in depressions, sloughs, and low hammocks. Natural vegetation within these soil types includes longleaf and slash pines, waxmyrtle, cabbage palm, sawpalmetto, pineland threeawn, maidencane, and cypress in wetter areas. Another poorly drained soil, Hilolo loamy sand, occurs in a small area in the central portion of the property. Natural vegetation for this soil, found on hammocks and along depressional areas and sloughs, includes cabbage palm, longleaf and slash pine, water oak, sawpalmetto, and waxmyrtle. Areas of Chobee loamy sand and Floridana sand are found in the project tract as well. These very poorly drained soils support natural vegetation of water oak, cypress, waxmyrtle, sandweed, pickerelweed, and sawgrass. Arents, 0-5% and Arents, organic substratum are found in three small areas in the southwest corner of the property. These soils were used as fill dirt in wet, depressional areas (USDA 1980).

The project tract is currently improved pasture and citrus grove (Figures 5 and 6). At the time of the reconnaissance survey the citrus trees appeared to be approximately 10-15 years old. An extensive irrigation system is in place, including ditches throughout the citrus grove area. It appears that the ground was leveled prior to bedding, as some areas of the exposed ground surface are characterized by a brown soil, typical of the subsurface stratums in the area, while others have the typical grey, flatwoods surface soils exposed. The southeastern portion of the property tract contains a number of small wetland marshes; however, these are now drained into the overall water control system. The southwest corner of the property is primarily improved pasture land.

In general, the natural environment would indicate a low potential for archaeological resources. The flatwoods offer a limited resource base and are poorly suited for either horticulture or agriculture. Drainage is poor and there are no permanent water sources.

Cultural History

The Western Grove property is located in the part of Florida often referred to as the Glades. This area was apparently one of the last parts of the peninsula to be occupied by humans due to its unique environmental characteristics. It has only been in the last 100 years that the region has been heavily occupied. Throughout its history, occupation of this region has been closely tied to the drainage (or lack of drainage) of the land.

The majority of the identified sites in this region date to the Late Archaic (2,000 to 1,000 B.C.) or Glades (500 B.C. to A.D. 1513) periods. During the Late Archaic (2,000 to 1,000 B.C.) slab-constructed Orange ceramics tempered with plant fibers and lithics appear in the artifact assemblage. Settlements were primarily located in hammocks and near water sources, with subsistence practices based on hunting-gathering activities. Glades period sites are marked by three major subperiods divided by ceramic types. The first period is marked primarily by sand tempered plain ceramics, with incised ceramics becoming more frequent at the end of the period. The second period is dominated by incised pottery, most notably Key Largo Incised. The third Glades period

is characterized by a transition from incised to plain pottery coupled with evidence of trade with northern and western cultures. Subsistence practices during the Glades period were characterized by hunting-gathering strategies coupled with exploitation of marine resources in coastal regions (Milanich 1994).

The area within the project tract was deeded to the Jacksonville, Tampa, and Key West Railway Company and the Florida Coastline Canal and Transport Company in the late 1800's (FDEP 2005). Presumably this was to promote wetlands drainage and subsequent development.

Project Approach

The project consisted of four steps: (1) a review of environmental and historical information on the property, (2) a walkover survey, (3) limited subsurface testing, and (4) correlation of the field observations with the background information to complete this report.

The literature review included examination of topographic and soils maps, current and historic aerial photography, historic land records, and a Florida Master Site File shapefiles search (FMSF 2004). In-house documentation from other surveys in the area was examined to determine site location patterns. This included a Phase I survey completed by SouthArc on the adjacent property east of the project tract. Subsurface testing of all hammocks was completed during this survey. No positive test units were encountered (Erbe *et al* 2002). No local informants were consulted on this project.

A walkover examination of the project tract was completed by SouthArc staff archaeologists on February 9, 2005. Due to the very low resource potential of the tract, subsurface testing was limited to two test units in areas deemed to have the best potential overall, one in the northern portion of the property and the other in the southern portion. Both units were placed in areas corresponding with the presence of hammocks or higher elevations visible in old aerial photographs (USDA 1943, Figure 7). The units were 50 x 50 centimeters (cm) square, excavated by natural levels to a depth of one meter and screened through ¼-inch hardware cloth (Figure 8).

Project Results

A review of the Florida Master Site File shapefiles did not show any archaeological or historical resources within the project tract, nor were any located within the vicinity of the property (FMSF 2004). Historic maps, topographic maps and historic aerial photography did not indicate the potential for historic activity within the tract.

A visual examination of the property did not locate any evidence of archaeological resources. As discussed above, ground leveling and ditching has been conducted within the portion of the property that is currently being used as citrus grove. The two shovel test units were placed in areas deemed to have the highest probability of encountering archaeological remains: areas that appeared

to be hammocks in old aerial photographs. Both of the test units were negative for any cultural resources.

Recommendation

No archaeological or historical resources were identified within the project tract. Overall the property has a low potential for archaeological sites due to its limited resource base and poorly drained soils. There is no indication of possible historic activity within the tract. In the opinion of the project archaeologists, the tract has little or no potential to contain cultural resources which might be significant or eligible for the *National Register.* We recommend that no further research be required prior to development of the tract.

References Cited

Brooks, H. K.
1981 *Guide to the Physiographic Divisions of Florida.* Florida Cooperative Extension Services, Institute of Food and Agricultural Sciences, University of Florida, Gainesville.

Erbe, Brian J., Lucy B. Wayne, and Martin F. Dickinson
2002 *Cultural Resources Survey and Assessment Westchester DRI, St. Lucie County, Florida.* SouthArc, Inc., Gainesville, FL.

Florida Department of Environmental Protection (FDEP)
2005 Board of Trustee's Land Database System (BTLDS), LABINS website, Tallahassee.

Florida Master Site File
2005 TRS search results, *SHAPE* files, ArcView search. Data provided by Florida Div. of Historical Resources, Tallahassee, Sept. 15, 2004.

Milanich, Jerald T.
1994 *Archaeology of Precolumbian Florida.* University Press of Florida, Gainesville.

U. S. Department of Agriculture (USDA)
1943 Aerial photographs, St. Lucie County, Florida. On file, Map Library, University of Florida, Gainesville.

1980 *Soil Survey of St. Lucie County, Florida.* Soil Conservation Service, Washington, DC.

U. S. Geological Survey (USGS)
1983 Ft. Pierce SW, Fla. 7.5-minute topographic quadrangle map.

1999 Aerial photograph, St. Lucie County. Microsoft *TerraServer* web page.

Due to the local nature of land use decisions, historic preservation laws are predominately enforced by state and local governments. The Florida legislature has enacted laws pertaining to unmarked human burials, intending that "all human burials and human skeletal remains be accorded equal treatment and respect based upon common human dignity without reference to ethnic origin, cultural background, or religious affiliation."[1] This section discusses some of the laws which may apply in the event that certain unanticipated discoveries are encountered.

Applicable Florida Law

The mandates of Florida Statutes (Chapter 872, *Offenses Concerning Dead Bodies And Graves*) apply when human skeletal remains, human burial, or associated burial artifacts have been or are discovered "upon or within any public or private land in the state, including submerged lands."[2] An "unmarked human burial"[3] is statutorily defined as:

- "any human skeletal remains or associated burial artifacts", or
- "any location, including any burial mound or earthen or shell monument, where human skeletal remains or associated burial artifacts are discovered or believed to exist on the basis of archaeological or historical evidence, excluding any burial marked or previously marked by a tomb, monument, gravestone, or other structure or thing placed or designed as a memorial of the dead."

Duty to Immediately Cease Activity

Upon discovery of an unmarked human burial, other than during an archaeological excavation authorized by the state or an educational institution, "all activity that may disturb the unmarked human burial shall cease immediately, and the district medical examiner shall be notified. Such activity shall not resume unless specifically authorized by the district medical examiner or the State Archaeologist."[4] Thus, when an unmarked human burial is encountered, the contractor must notify the district medical examiner and cease all work in the vicinity, and should protect the area from further spoliation. SouthArc recommends covering the find with plastic sheeting or tarps, marking the location, and preventing further disturbances to the immediate area. Such discoveries should be

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[1] FLA STAT. § 872.05 (1) (Unmarked Human Burials; Legislative Intent) 2002.
[2] *Id.* (stating "This section applies to all human burials, human skeletal remains, and associated burial artifacts not otherwise protected under chapter 497 or other state law").
[3] *Id.* § 2(f).
[4] *Id.* § 2(b) (providing the "District medical examiner is a person appointed under F.S. § 406.06, §406.15, or §406.17"; and § 2(e), stating "State Archaeologist" means the person employed by the Division of Historical Resources of the Florida Department of State pursuant to §267.031(6)).

immediately reported to SouthArc at (352) 372-2633. SouthArc will respond to such calls and initiate the necessary actions to comply with Chapter 872.

Duty to Notify Authorities

Florida law imposes a mandatory duty to notify local law enforcement authorities of site disturbance. "Any person who knows or has reason to know that an unmarked human burial is being unlawfully disturbed, destroyed, defaced, mutilated, removed, excavated, or exposed shall immediately notify the local law enforcement agency with jurisdiction in the area where the unmarked human burial is located."[5] Upon inspection, "any law enforcement agency that finds evidence that an unmarked human burial has been unlawfully disturbed shall notify the district medical examiner."[6]

Procedures Following the Discovery of an Unmarked Human Burial

Jurisdiction and duties of the district medical examiner (DME) are described at §872.05 (4)(a). Note: this section does not apply to an archaeological excavation authorized by the state or an educational institution.[7] Initially, the DME shall assume jurisdiction over, and responsibility for, such unmarked human burial if he or she"

- determines that the unmarked human burial may be involved in a legal investigation, or
- represents the burial of an individual who has been dead less than 75 years

After receiving notification of the unmarked human burial, the DME has 30 days to determine if he or she shall maintain jurisdiction or refer the matter to the State Archaeologist. If the unmarked human burial is determined not to be involved in a legal investigation and represents the burial of an individual who has been dead 75 years or more, the DME will notify the State Archaeologist.

Duties of the State Archaeologist

Upon receiving notice from the DME, the Division of Historical Resources of the Department of State ("Division") may assume jurisdiction over and responsibility for the unmarked human burial pursuant to §872.05(6).[8] This process is typically to initiate efforts to properly protect the burial, human skeletal remains, and associated burial artifacts. If the Division assumes jurisdiction, "the State Archaeologist shall consult a human skeletal analyst who shall report

[5] *Id.* (3)(a).
[6] *Id.* (3)(b).
[7] See §872.05 (5) (Discovery of an Unmarked Human Burial During an Archaeological Excavation).
[8] *Id.* (6).

within 15 days as to the cultural and biological characteristics of the human skeletal remains and where such burial or remains should be held prior to a final disposition."[9]

The State Archaeologist must make "reasonable efforts to identify and locate persons who can establish direct kinship, tribal, community, or ethnic relationships with the individual or individuals whose remains constitute the unmarked human burial."[10] If possible, he or she "shall consult with the closest related family member or recognized community leaders, if a community or ethnic relationship is established, in determining the proper disposition of the remains found in the unmarked human burial."[11]

Ownership of A Historical, Archaeological, or Significant Unmarked Human Burial

The State Archaeologist is required to determine whether the unmarked human burial is historically, archaeologically, or scientifically significant. If the burial is deemed significant, re-interment may not occur until the remains have been examined by a human skeletal analyst designated thereby. Frequently, no links to family or the community can be identified. Under Florida law, this occurs when the State Archaeologist "is unable to establish a kinship, tribal, community, or ethnic relationship with the unmarked human burial, determine the proper disposition of the burial and consult with persons with relevant experience, including:

(1) a human skeletal analyst,
(2) two Native American members of current state tribes recommended by the Governor's Council on Indian Affairs, Inc., if the remains are those of a Native American,
(3) two representatives of related community or ethnic groups if the remains are not those of a Native American, or
(4) an individual who has special knowledge or experience regarding the particular type of the unmarked human burial."[12]

If the State Archaeologist finds that an unmarked human burial is historically, archaeologically, or scientifically significant and if the parties (listed above) with whom he or she is required under §872.05(6)(c) to consult agree, the human skeletal remains, and the associated burial artifacts, shall belong to the State of Florida. The title thereto will be vested in the Division.

SouthArc's Scope of Work

SouthArc will provide coordination with state and local agencies, including the Division. We will work with property owners and contractors to alleviate construction delays or alterations resulting from such discoveries. Typically, construction is temporarily shifted to areas away

[9] *Id.* (4)(c).
[10] *Id.* (6)(b).
[11] *Id.*
[12] *Id.* (6)(c).

from the find while an assessment is conducted. Depending upon results of the assessment however, project redesign, and/or provisions for reburial, may be required.

Should the remains be classified as archaeologically or scientifically significant, SouthArc will negotiate a Scope of Work or a Management Plan with the State Archaeologist. A Management Plan may include disinterment, or preservation in place. If disinterment is selected, SouthArc will work with a physical anthropologist to carefully remove the remains for forensic examination. Following completion of the forensic investigation, a Management Report will be provided to facilitate decisions regarding whether site development activities may proceed in the vicinity of the discovery. The Management Report will also include all relevant correspondence between SouthArc, the District Medical Examiner, the State Archaeologist, and other agencies involved in the project.

When forensic and management analyses are completed, SouthArc will prepare a draft report to the client for review and approval. Florida Master Site File forms will be completed and updated as needed. In compliance with Florida law, SouthArc will submit a Final Report to the State Archaeologist.[13]

[13] *Id.* (7) (providing "The archaeologist and human skeletal analyst involved in the archaeological excavation and scientific analysis of an unmarked human burial shall submit a written report of archaeological and scientific findings as well as a summary of such findings, in terms that may be understood by laypersons, to the State Archaeologist within 2 years after completion of an excavation. The division shall publish the summary within 1 year after its receipt and shall make such report available upon request.").

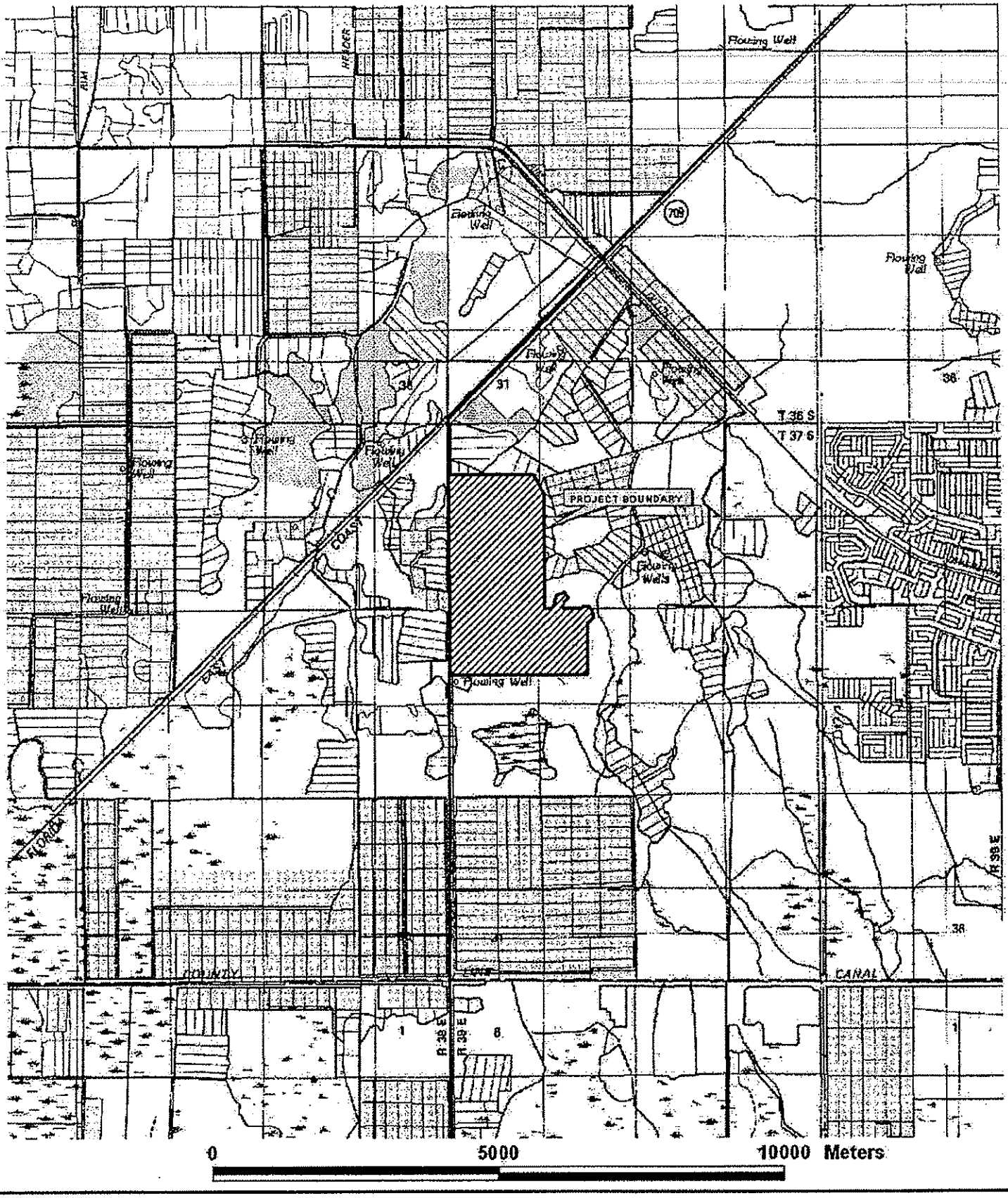

FIGURE 1. PROJECT LOCATION, WESTERN GROVE, ST. LUCIE COUNTY, FLORIDA

SOURCE: USGS 100K TOPO

N-11

SouthArc, Inc.

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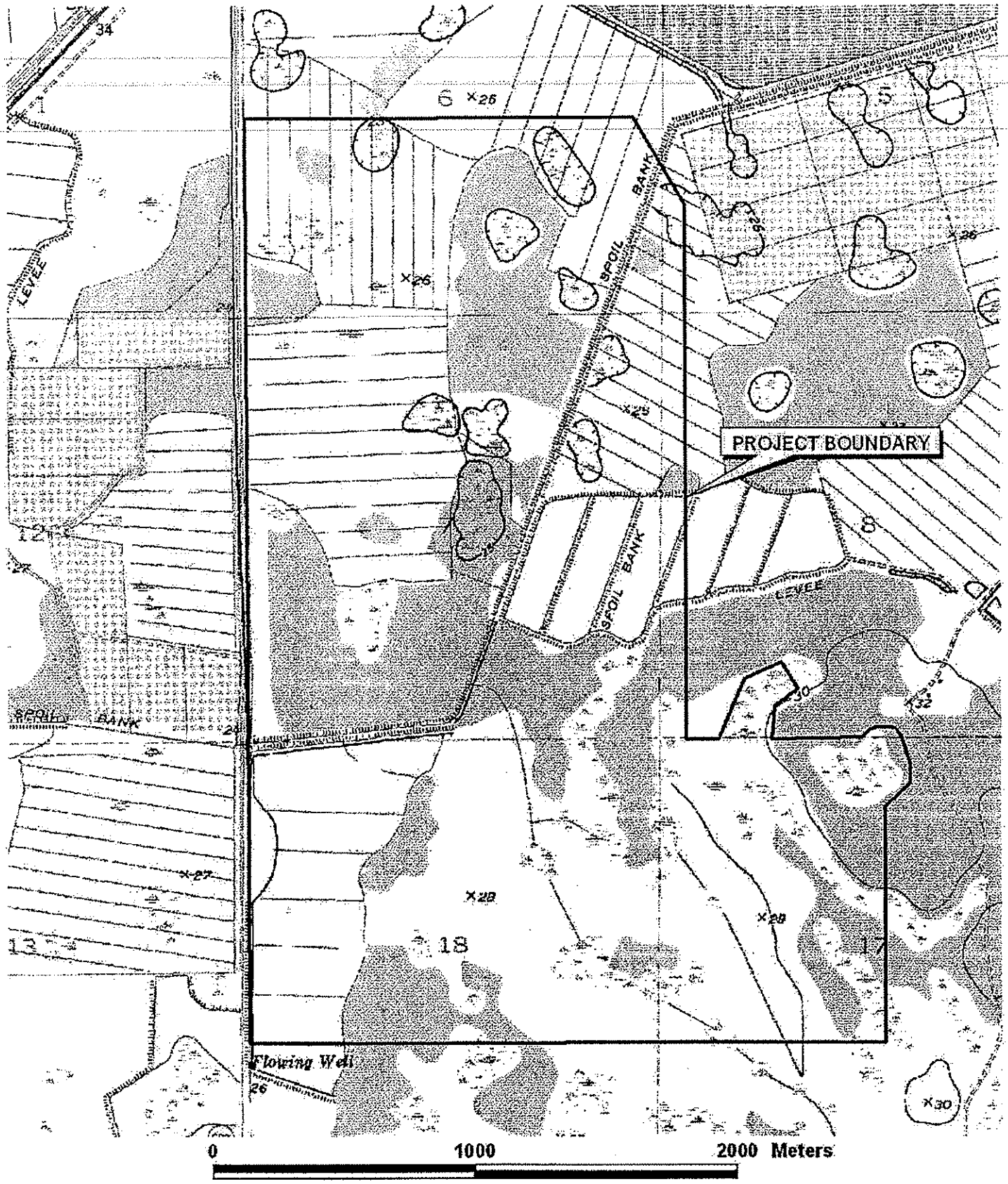

FIGURE 2. TOPOGRAPHIC MAP, WESTERN GROVE, ST. LUCIE COUNTY, FLORIDA

SOURCE: USGS 1983

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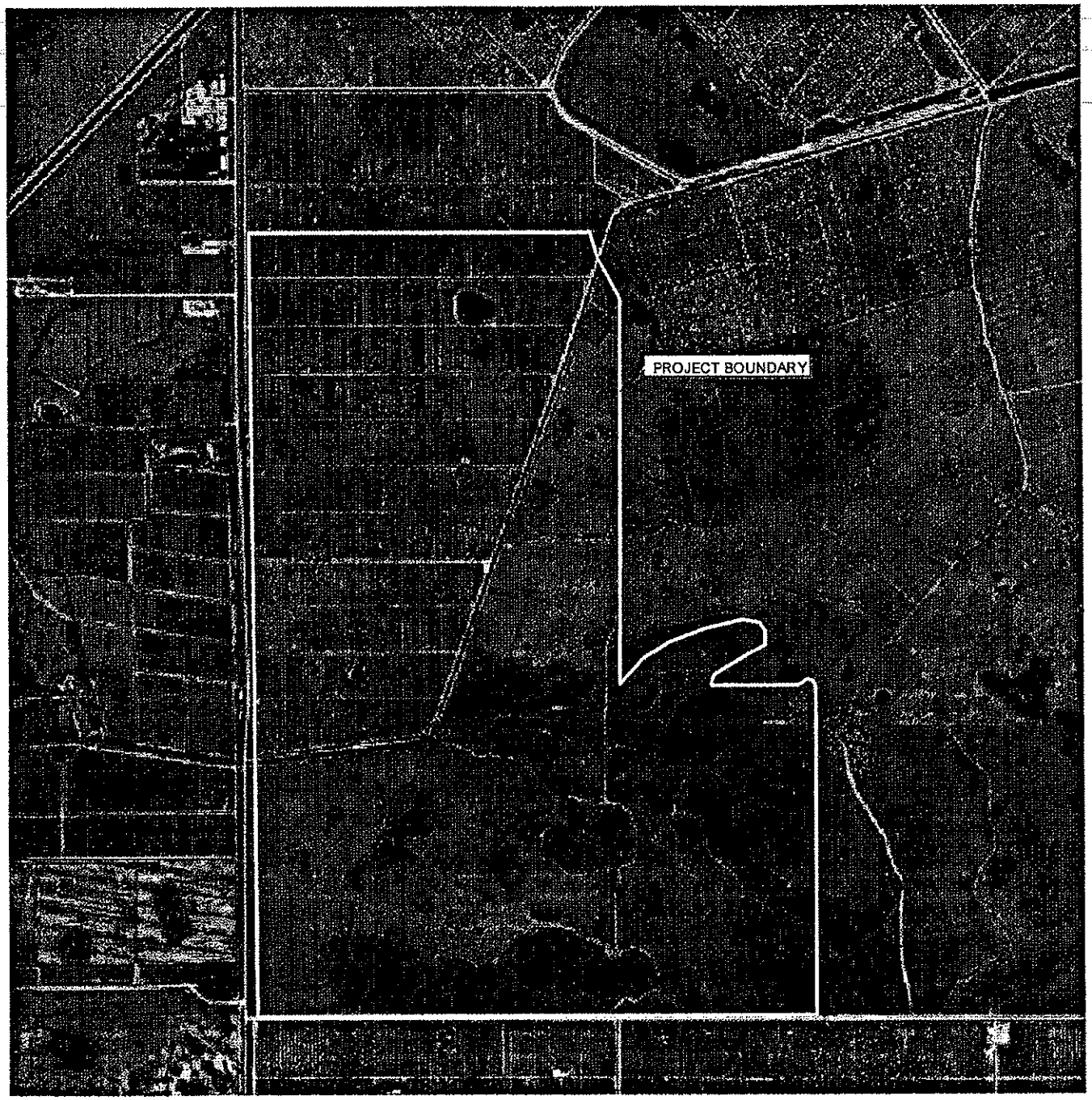

FIGURE 3. AERIAL PHOTOGRAPH, WESTERN GROVE, ST. LUCIE COUNTY, FLORIDA

SOURCE: USGS 1999

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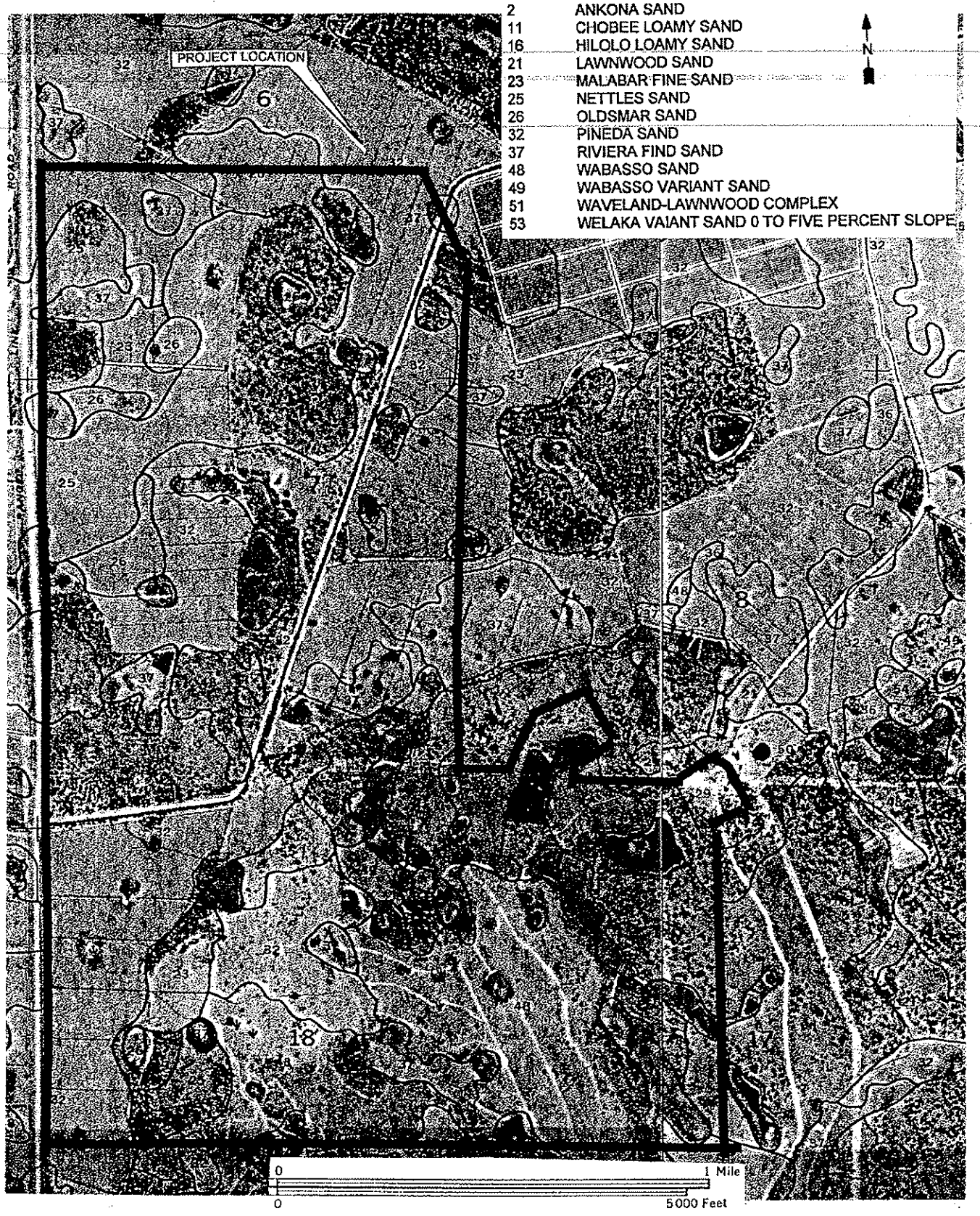

FIGURE 4. SOILS MAP, WESTERN GROVE, ST. LUCIE COUNTY, FLORIDA

SOURCE: USDA 1980

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FIGURE 5. REPRESENTATIVE PHOTOGRAPHS, WESTERN GROVE, ST. LUCIE COUNTY, FLORIDA

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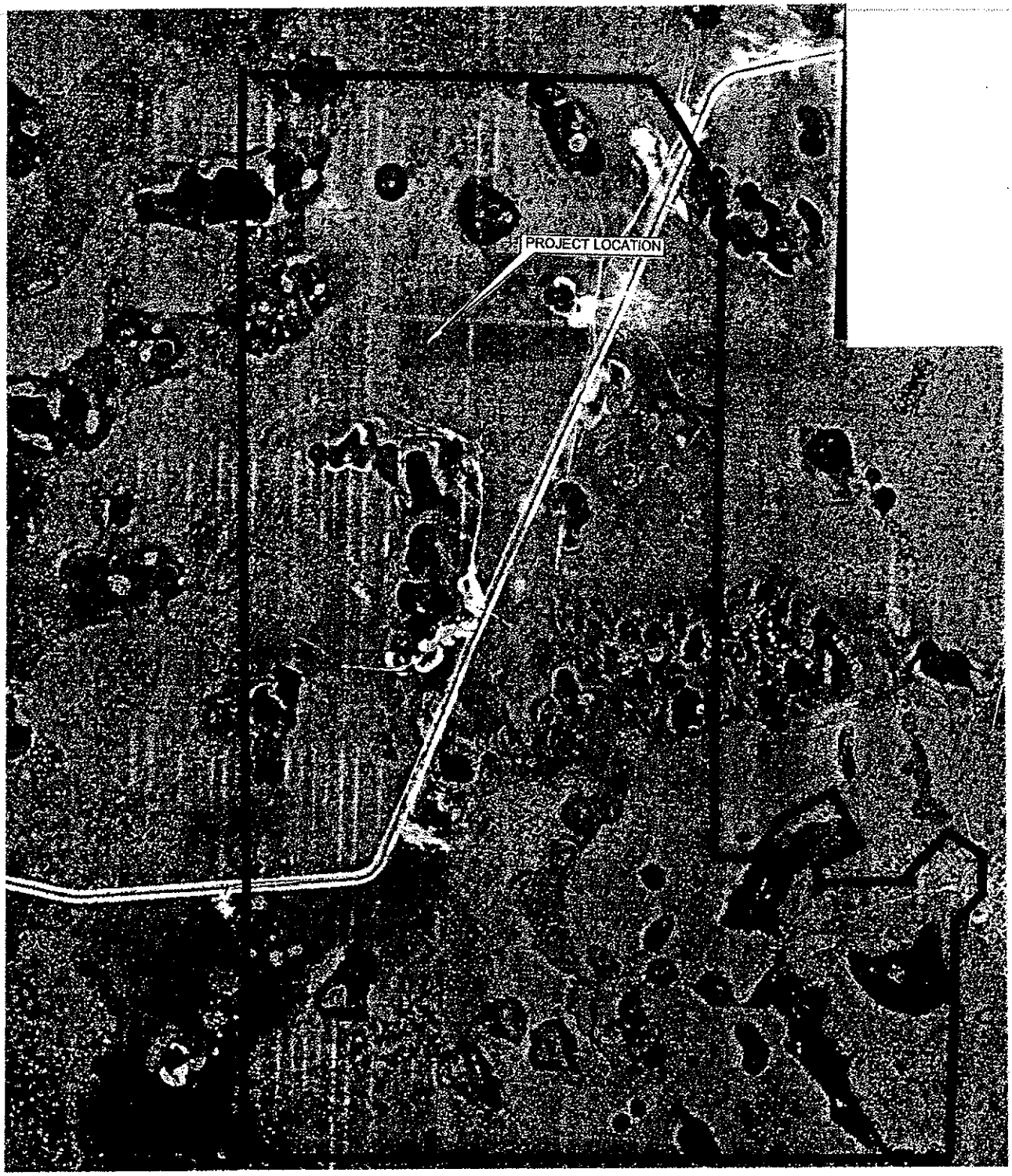

FIGURE 6. EARLY 20TH CENTURY AERIAL PHOTOGRAPH, WESTERN GROVE, ST. LUCIE COUNTY, FLORIDA

SOURCE: USDA 1943

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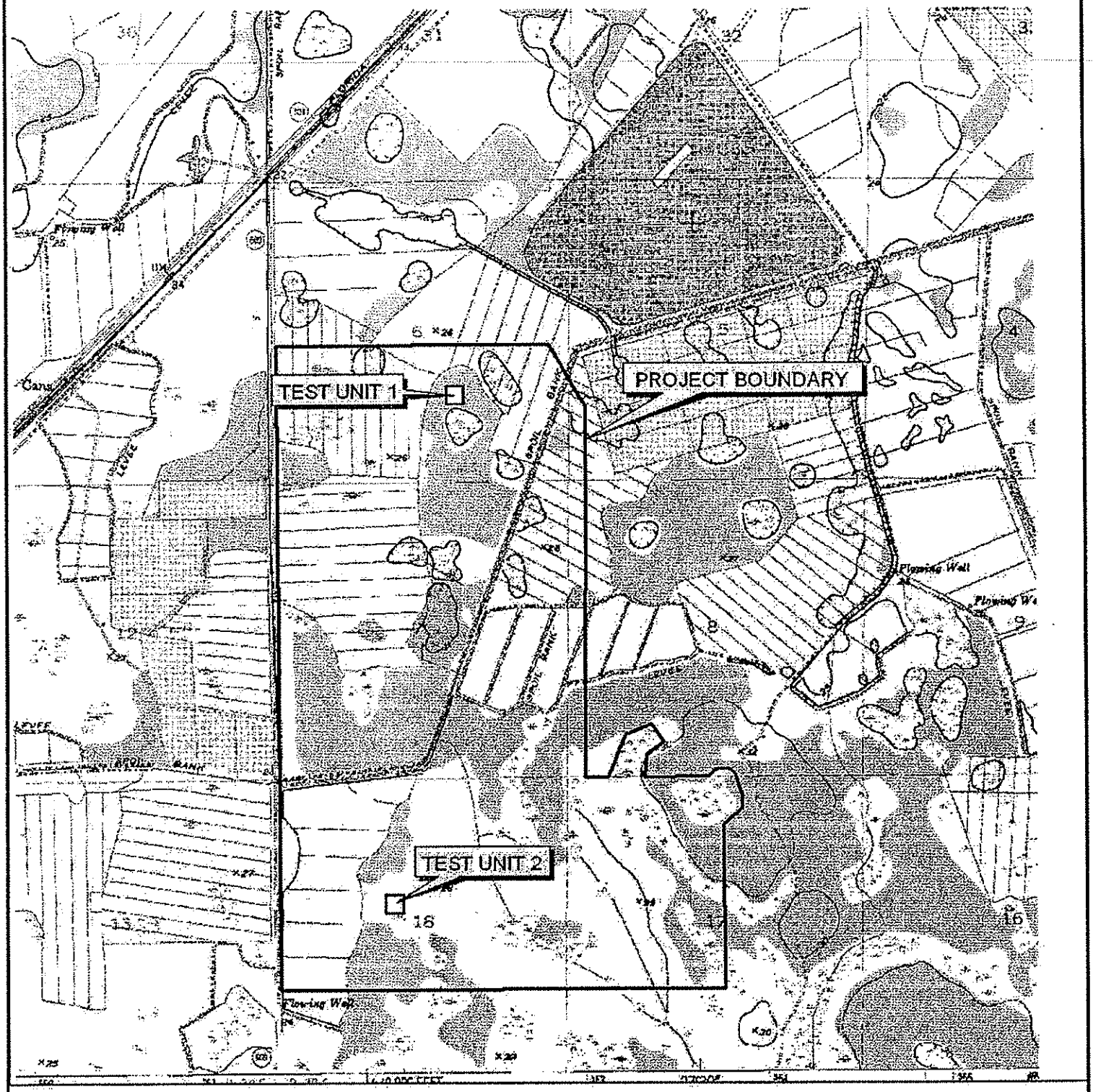


FIGURE 7. TEST UNIT LOCATIONS, WESTERN GROVE, ST. LUCIE COUNTY, FLORIDA

SouthArc, Inc.
Archaeological and Architectural Services

Florida Master Site File

Survey Log Sheet

Electronic Version 1.1.0

Survey # _____

Entry Date 4/4/2005

IDENTIFICATION AND BIBLIOGRAPHIC INFORMATION

Survey Project (name and project phase) Western Grove--reconnaissance

Report Title (exactly as on title page) Reconnaissance Survey, Western Grove, St. Lucie County, Florida

Report Author (last name first)

_____ >> Dickinson, Martin F.

Publication Date (year) 2005 Total Number of Pages in Report (not including site forms) 16

Publication Information (use the style of American Antiquity) Dickinson, Martin F. and Gifford Waters. 2005. Reconnaissance Survey, Western Grove, St. Lucie County, Florida. SouthArc, Inc., Gainesville, FL.

Supervisor(s) of Fieldwork (whether or not the same as author(s); last name first; add state for cities outside of Florida)

Name: _____ >> Dickinson, Martin F.;Southarc Inc, Gainesville;

Organization: Southarc Inc, Gainesville >>

City: _____ >>

Key Words/Phrases

_____ >> flatwoods

Survey Sponsors (corporation, government unit, or person who is directly paying for fieldwork)

Name: Core Communities/Tradition Development Company LLC

Address/Phone: 1850 Fountainview Blvd., #201, Port St. Lucie, FL 34986 772-340-1079

Organization: _____

Recorder Name (last name first) Wayne, Lucy B. Date Log Sheet Completed 4/4/2005

Is this survey or project a continuation of a previous project? NO If yes, list previous survey #(s) _____

MAPPING

County(s)

_____ >> St. Lucie

USGS 7.5' Series Map(s)

Map Name FORT PIERCE SW Publication Date _____ >> FORT PIERCE SW;1983

DESCRIPTION OF SURVEY AREA

Dates for Fieldwork: Start 2/9/2005 End 2/9/2005 Total Area Surveyed (fill in one) _____ hectares 1585 acres

Number of Distinct Tracts or Areas Surveyed 1

If Project is a Corridor, Complete the Following (fill in one for each): Corridor Width: 0 meters 0 feet

Corridor Length: 0 kilometers 0 miles

ATTACH PLOT OF SURVEY AREA ON PHOTOCOPIES OF USGS 1:24,000 MAP(S)

Survey #

Survey Log Sheet

RESEARCH AND FIELD METHODS

Types of Survey (select as many as apply)

>> Archaeological

Other, Unlisted Survey Types (describe):

Preliminary Research Methods (select as many as apply)

>> Aerial photography

Archaeological Methods (describe the proportion of sites at which method was used, select as many methods as apply)

Method Used	Proportion	
Screened shovel,1/4"	Method Used 0-20%	>> Screened shovel,1/4";Method Used 0-20%

Historical Architectural Methods (describe the proportion of properties at which method was used, select as many methods as apply)

Method Used	Proportion	
Windshield	Method Used 90-100%	>> Windshield;Method Used 90-100%

Notes on Field Methods (e.g., scope, intensity, procedures) walkover/windshield survey, two judgmental units--50x50x100cm, 1/4" screen

SURVEY RESULTS (cultural resources recorded)

Site Significance Evaluated? NO

Site Counts: Previously Recorded Sites 0 Newly Recorded Sites 0

Previously Recorded Site #s with Site File Update Forms (List site #'s without "8")

Newly Recorded Site #s (Make sure all are originals and not updates. List site #'s without "8")

Type of Site Form Used: >> No Sites Located/No Form

******* MASTER SITE FILE USE ONLY ******

FMSF Staffer:

Electronic Form Used:

Origin of Survey Report: >>

1A-32 Permit #

Type of Document (select as many as apply)

>>

Other Document Type:

* Note: Do NOT plot document types marked with an asterisk

Document Destination:

Plotability(1):

Plotability(2):

MS# 0

Supplementary Printout

> **Report Author (last name first)**
Waters, Gifford
Dickinson, Martin F.

> **Key Word/Phrase Describing Survey**
flatwoods

> **County Surveyed**
St. Lucie

> **USGS 7.5 Map for Surveyed Area: Name/Latest Revision Date**
FORT PIERCE SW;1983

> **Types of Survey**
Archaeological

> **Preliminary Method Used**
FMSF property/resource search
FMSF previous survey search
Literature search
Public lands surveys records
Aerial photography

> **Archaeological Method Used/Percent**
Windshield;Method Used 50-90%
Screened shovel,1/4";Method Used 0-20%

> **Architectural Method Used/Percent**
Windshield;Method Used 90-100%

> **Type of document:**

> **Fieldwork Supervisor (Name[last,1st]/Org./City)**
Dickinson, Martin F.;Southarc Inc, Gainesville;

> **Site Form Used**
No Sites Located/No Form

> **Origin of Survey Report**

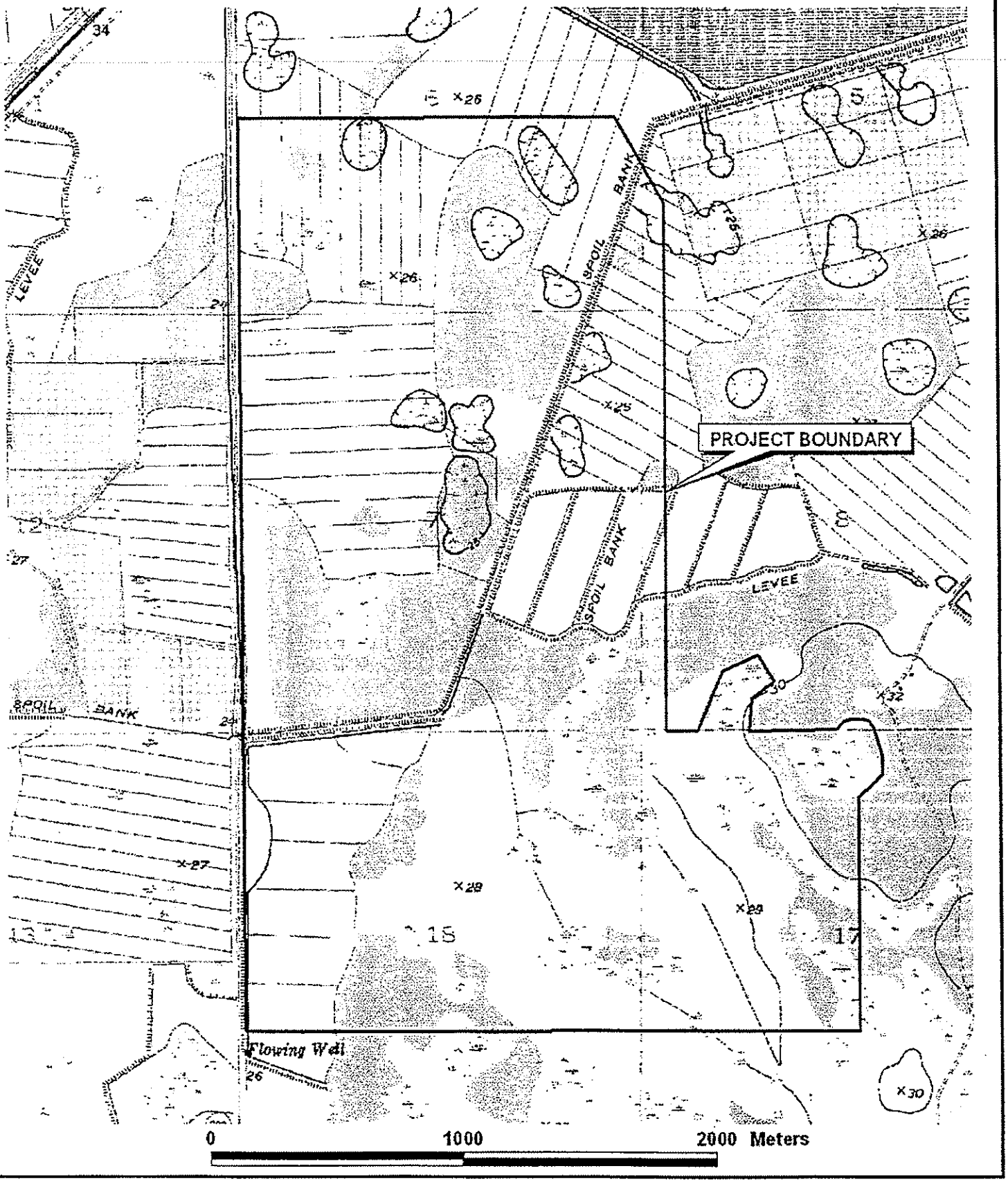


FIGURE 2. TOPOGRAPHIC MAP, WESTERN GROVE, ST. LUCIE COUNTY, FLORIDA

SOURCE: USGS 1983

SouthArc, Inc.

Archaeological and Architectural Services

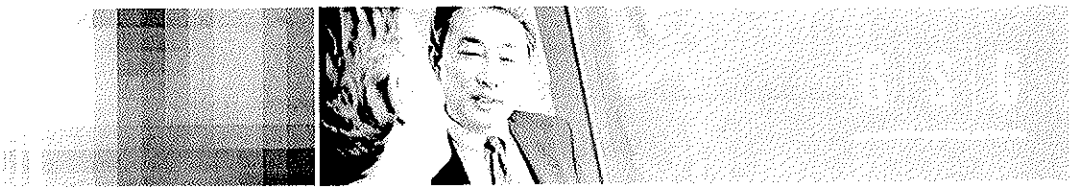
APPENDIX O

Report to the
Treasure Coast Regional Planning Council

Methodology, Calculations, and Results in the Determination of Multi-County Impacts and Appropriate Transfer Payments Related to the Potential Use of Beach Access and Boat Ramps Resulting from Developments of Regional Impact Proposed for St. Lucie County, Florida

Prepared by
Government Services Group, Inc.
Tallahassee, Florida

March 2006



EXECUTIVE SUMMARY

The use of Martin County public beach access facilities and boat ramps by neighboring St. Lucie residents has been the subject of an on-going pubic debate in Martin County for some time. Attempts have been made in the past to address the fiscal impact of large Developments of Regional Impact (DRIs) on these Martin County facilities, but lacking an acceptable methodology for determining the cost, the issue has not been satisfactorily resolved. In the fall of 2005, the Treasure Coast Regional Planning Council commissioned Government Services Group, Inc. (GSG), a firm specializing in public sector funding and service solutions, to develop a methodology for determining the appropriate amount of transfer payment to Martin County, Florida for the potential use of public beach access facilities and boat ramps by future residents of DRIs located in St. Lucie County, Florida.

Methodology Summary

The methodology developed by GSG is modeled after a standards-based, economic opportunity cost approach. This approach is the predominant impact fee method for determining the facility costs that new growth imposes on public parks and recreation facilities, which include beach access sites and boat ramps. It spreads the cost of new public facilities across all new fee-paying residential units, whose future residents will have the opportunity to use the facilities over the life of the residential unit, regardless of whether particular future residents avail themselves of the opportunity. It is standards-based in that it relies on the current level of service provided by the service provider to calculate the new facility costs per capita and is designed to maintain that level of service as new growth occurs. In other words, if the number of residential units to be served were to double, the fee is designed to generate enough money to double service capacity, and thereby maintain the current level of service.

Due to proximity to Martin County, a portion of the residents of future DRIs in the City of Port St. Lucie will likely take the opportunity to use public beach access facilities and boat ramps in Martin County. To ensure that this utilization does not degrade the level of service at these facilities, a cost per residential/hotel unit designed to cover the capital costs of providing new facilities will be charged to each future St. Lucie County DRI, but the cost will only be assessed on a portion of the total residential/hotel units. The portion of units to be assessed the cost per residential unit is based on the relative proximity of the DRI to the facilities in Martin County and to those in St. Lucie County, weighted by the number of facility units (beach access parking spaces/boat ramp lanes) in each County. In other words, if it is the same average distance from the DRI to the facilities in Martin County as to the facilities in St. Lucie County and there is the same number of facilities in each County, only half of the DRI's units will be assessed the cost per residential/hotel unit. And once the average distance from the DRI to the facilities in Martin County are more than twice as far as the average distance from the DRI to the facilities in St. Lucie County, none of the DRI's units will be assessed the cost per residential/hotel unit.

The methodology employed is conservative in a number of other ways:

- The cost per assessable residential/hotel unit does not cover operational costs, although it can be argued that the future residents of the proposed St. Lucie DRIs should pay these costs as part of the assessment fee because they will not be paying annual property taxes to Martin County. Inclusion of operational costs would increase the fees about 55% for beach access and about 10% for boat ramps.
- The cost per parking space for beach access was minimized by assuming implementation of a new parking lot design with more parking spaces per acre than is currently the practice and implementation of a new policy of purchasing cheaper property inland for parking and transporting visitors to the beach.
- The cost per boat ramp lane was minimized by assuming that an acre of land for boat ramps will accommodate more ramp lanes in the future than is currently the practice.
- Peak population, which includes visitors, was used instead of year-round permanent population, thereby spreading the total cost over a larger population and reducing the cost to each new permanent resident.

Cost Summary

Below is a summary of the total assessment costs calculated and assigned to each of the four proposed DRIs pending in St. Lucie County, by phase, based on the number of residential/hotel units proposed by each DRI:

	Western Grove	Riverland-Kennedy	Wilson Groves	Southern Grove
Phase I	$ 511,309	$ 1,231,641	$ 1,069,865	$ 532,421
Phase II	$ 790,496	$ 3,892,478	$ 1,990,922	$ 1,586,615
Phase III	$ 871,257	$ 639,961	$ 683,741	$ 1,356,077
Phase IV	$ -	$ -	$ -	$ 538,278
Total =	$ 2,173,061	$ 5,764,080	$ 3,744,529	$ 4,013,391

Below are the facility cost per residential /hotel unit and the percentage of units to be assessed for each DRI for both beach access sites and boat ramps:

	Western Grove	Riverland-Kennedy	Wilson Groves	Southern Grove
Beach Access Sites:				
Facility Cost per Residential Unit[1]	$ 340.63	$ 314.74	$ 305.71	$ 340.63
Facility Cost per Hotel Unit	NA	NA	NA	$ 102.19
% of Units Assessed	48.53%	48.54%	48.52%	48.54%
Boat Ramps:				
Facility Cost per Residential Unit[1]	$ 682.93	$ 631.03	$ 612.93	$ 682.93
Facility Cost per Hotel Unit	NA	NA	NA	$ 204.88
% of Units Assessed	54.11%	53.86%	55.14%	53.75%

[1] Facility cost per capita x Average # of persons per residential unit as proposed in DRI application

Recommendation

It is recommended that the Facility Cost per Unit and the % of Units Assessed specified above be incorporated into the development order for each DRI, and that the resulting assessments for each phase be paid to Martin County prior to issuance either of any building permits for residential units or hotel rooms or final plat approval. It is also recommended that Martin County develop project-specific construction plans for the location and timing of the facilities to be constructed with these assessment funds.

It is further recommended that the DRIs located in St. Lucie County receive credit for assessment fees paid to Martin County in any calculation of impact fees for beach access or boat ramp facilities imposed in the future by any local government jurisdiction in St. Lucie County.

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Introduction

The use of Martin County public beach access facilities and boat ramps by neighboring St. Lucie residents has been the subject of an on-going pubic debate in Martin County for some time. Attempts have been made in the past to address the fiscal impact of large Developments of Regional Impact (DRIs) on these Martin County facilities, but lacking an acceptable methodology for determining the cost, the issue has not been satisfactorily resolved. In the fall of 2005, the Treasure Coast Regional Planning Council commissioned Government Services Group, Inc. (GSG), a firm specializing in public sector funding and service solutions, to develop of a methodology for determining the appropriate amount of transfer payment to Martin County, Florida for the potential use of public beach access facilities and boat ramps by future DRIs located in St. Lucie County, Florida.

Detailed Methodology

The methodology for determining the appropriate amount of transfer payment to Martin County for each St. Lucie Development of Regional Impact (DRI) is modeled after a standards-based, economic opportunity cost approach. This approach is the predominant impact fee method for determining the facility costs that new growth imposes on public parks and recreation facilities, which include beach access sites and boat ramps. It spreads the cost of new public facilities across all new fee-paying residential units, whose future residents will have the opportunity to use the facilities over the life of the residential unit, regardless of whether particular future residents avail themselves of the opportunity. It is standards-based in that it relies on the current level of service provided by the service provider to calculate the new facility costs per capita and is designed to maintain that level of service as new growth occurs.

Using beach access as the example, this approach estimates the total capital cost of existing beach access facilities in Martin County in today's dollars and then divides that total cost by the total number of parking spaces at the existing facilities to arrive at a cost per beach access parking space. This cost per parking space is then multiplied by the current level of service being provided by Martin County, which is measured as the current number beach access parking spaces per capita (at peak population), to arrive at a per capita cost. The per capita cost is then multiplied by the average number of people per unit[1] to convert it to a cost per residential unit, which reflects the amount each new residential unit in Martin County would need to pay to fund new facilities in order to maintain the current level of service for these facilities as residential growth occurs. In other words, if the number of residential units were to double in Martin County, the fee is designed to generate enough money to double the number of beach access parking spaces available, and thereby maintain the current level of service for public beach access.

Due to their proximity to Martin County, the residents of proposed new residential / hotel units in St. Lucie DRIs will have the opportunity to use public beach access sites and public boat ramps in Martin County[2]. In order to ensure that this impact will not degrade the level of service at the facilities in Martin County, each St. Lucie DRI will be charged the cost per residential / hotel unit calculated above on some or none of its units, depending on the relative proximity of the DRI to facilities in Martin County and in St. Lucie County, weighted by the number of facility units (parking spaces/boat ramp lanes) in each County. For example, if the average distance from a DRI to the public beach access facilities in Martin County and to the public beach access facilities in St. Lucie County is the same or equal, and there is the same number of public beach access parking spaces in each County, it is assumed that 50% of the DRI's residential / hotel units will have the opportunity to use the facilities in Martin County, and therefore 50% of the units will be charged the assessment fee. Yet, if it was the same distance from a DRI to the public beach access facilities in Martin County as to the public beach access facilities in St. Lucie County, and there were .5 parking spaces in Martin County for every 1 parking space in St. Lucie County, only 33%, or one-third, of the units would be charged. And if it was twice as far to the facilities in Martin County as the facilities in St. Lucie County, and there was 1 parking space in Martin County for every 1 parking space in St.

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[1] For St. Lucie County DRIs, the average number of person per unit projected in each DRI proposal was used to convert the per capita cost to a cost per residential unit that would be applied to the chargeable units in that DRI.

[2] This includes public beach access sites and public boat ramps owned by county, city, state, or federal government.

Lucie County, only 33%, or one-third, of the units would be charged. Yet, once the average distance from a particular DRI to facilities in Martin County exceeds twice the average distance to facilities in St. Lucie County, weighed by the number of parking spaces available in each county, none of the DRI's residential / hotel units will be charged. The math for these calculations is shown on pages 4 and 5.

The methodology employed is conservative in a number of other ways:

- The cost per assessable residential/hotel unit does not cover operational costs, although it can be argued that the St. Lucie DRIs should pay these costs as part of the assessment fee because they do will not be paying annual property taxes to Martin County. Operational costs would increase the fees about 55% for beach access and about 10%% for boat ramps
- The cost per parking space for beach access was minimized by assuming implementation of a new parking lot design with more parking spaces per acre than is currently the practice and implementation of a new policy of purchasing cheaper property inland for parking and transporting visitors to the beach
- The cost per boat ramp lane was minimized by assuming an acre of land for boat ramps will accommodate more ramp lanes in the future than is currently the practice
- Peak population, which includes transient population, was used instead of year-round permanent population, thereby spreading the cost over a larger population and reducing the cost to each new permanent resident.

Differences from Impact Fee

The assessment fee to be charged to some or none of the residential units in St. Lucie DRIs differs from an impact fee in that credits for past and future taxes, debt payments, and grant funds that were or will be paid toward these same facilities by or on behalf of future Martin County residents were not subtracted from the assessment fee because Martin County impact fees do not apply to St. Lucie County residents.

Calculation of Capital Costs

Capital costs consist of land acquisition and capital improvements. Current land values were based on land sales prices comparable to the most recently purchased beach access site and boat ramp site in Martin County, as recently identified for Martin County by Deighan Consultants. For improvement costs, actual costs for a recent beach access site and proposed bid costs for a boat ramp were used.

For beach access, Martin County Growth Management calculated an average land cost of $458,354 per acre[3] for properties comparable to the most recently purchased beach access site. By designing a parking facility that will hold 70 parking spaces per acre, which is more efficient than existing parking facilities, Martin County estimated a land cost of $6,548 per parking space for beach access. The actual cost of improvements for this beach access site was $9,946 per parking space, for a total capital cost of $16,494 per parking space. The capital cost per parking space was then multiplied by the current or planned level of service (# of parking spaces per capita), whichever is lower, to arrive at a capital cost of $136.25 per capita for beach access sites.

For boat ramps, Martin County Growth Management calculated an average land cost of $1,581,408 per acre for properties comparable to the most recently purchased boat ramp site. Based on placing 4 boat ramp lanes on this 2.4-acre boat ramp site, Martin County estimated a land cost of $948,845 per boat ramp lane. The estimated cost of improvements for the boat ramp based on construction bids was $825,000 per ramp lane, for a total capital cost of $1,773,845 per ramp lane. The cost per boat ramp lane was then multiplied by the current or planned level of

[3] Martin County determined that the average cost per acre could be cut in half if they adopted a policy of purchasing in the future only cheaper inland property for beach access parking areas and shuttling people to the beaches in buses. While this cuts capital costs, it would add substantial operating costs.

service (# of boat ramp lanes per capita), whichever is lower, to arrive at a capital cost of $273.17 per capita for boat ramp facilities.

Martin County Parks and Recreation and Martin County Growth Management Department provided these capital cost figures. Martin County Parks and Recreation provided the existing number of parking spaces at each public beach access site and the number of ramp lanes at each boat ramp site, while Martin County Growth Management Department provided the current peak population.

The capital cost worksheet is included in Appendix A, and the current and planned levels of service, per parking space and per boat ramp lane capital costs, and the conversion to per capita costs are included in Appendix C.

Total Capital Cost Per Capita and Per Residential / Hotel Unit

The total capital costs per capita of $136.25 and $273.17 for beach access and boat ramps, respectively, is then converted to a per residential / hotel unit cost by multiplying it by the average number of persons per residential / hotel unit projected in each DRI proposal.

Below are the results for the four proposed DRIs in St. Lucie County.

Table 1 – Total Capital Cost per Capita and per Residential/Hotel Unit: **Beach Access**

DRI	Total Cost per Capita	**Times** Number of Persons per Residential /Hotel Unit	**Equals** Cost per Chargeable Residential Unit
Western Grove	$136.25	2.50	$340.63
Riverland-Kennedy	$136.25	2.31	$314.74
Wilson Groves	$136.25	2.24	$305.71
Southern Grove	$136.25	2.50 .75 (per hotel room)*	$340.63 $102.19

Table 2 – Total Capital Cost per Capita and per Residential/Hotel Unit: **Boat Ramps**

DRI	Total Cost per Capita	**Times** Number of Persons per Residential / Hotel Unit	**Equals** Cost per Chargeable Residential Unit
Western Grove	$273.17	2.50	$682.93
Riverland-Kennedy	$273.17	2.31	$631.03
Wilson Groves	$273.17	2.24	$612.93
Southern Grove	$273.17	2.50 .75 (per hotel room)*	$682.93 $204.88

** 1.5 person per room per night, but assumes non-transient rate of 50%; Source: Technical Memorandum on Methods for Updating Roads, Public Buildings, Law Enforcement, Emergency Management Service, Public Library, and Parks and Recreation Impact Fees (Martin County), James P. Nicholas, Ph.D., Final, August 2005*

The capital cost summary worksheet is included in Appendix B, and the current and planned levels of service, per parking space and per boat ramp lane capital costs, and the conversion to per capita costs are included in Appendix C.

Percentage of Units Assessed and Assessment Fee Totals

As explained under "Methodology" above, depending on the relative proximity of the DRI to facilities in Martin County and facilities in St. Lucie County[4] and the number of facility units (beach parking spaces/boat ramp lanes) in each County, some or none of the residential / hotel units in each respective DRI are to be assessed the cost per residential unit specified above.

The weighted relative proximity factor is the percentage that results when the average mileage over drivable land to facilities in St. Lucie County, weighted by the number of facility units in Martin County for every 1 unit in St. Lucie County, is divided by the sum of the weighted average mileage over drivable land to the facilities in St. Lucie County plus the average mileage over drivable land to facilities in Martin County. However, if the weighted relative proximity factor is less than 33.33%, meaning the facilities in Martin County are more than twice as far from the DRI as the weighted average distance from the DRI to the facilities in St. Lucie County, the factor becomes 0% and none of the residential units / hotel rooms in the DRI Phase will be assessed.

Examples:

1. If it was an average of 50 miles to the public beach access facilities in St. Lucie County and an average of 25 miles to the facilities in Martin County, and there was 1 public beach access parking space in Martin County for every 1 space in St. Lucie County, 2/3 or 66.67% [(50 miles x 1.0) / ((50 miles x 1.0) + 25 miles)] of the residential / hotel units are considered to have the opportunity to use the public beach access facilities in Martin County, so the weighted relative proximity factor would be 66.67%.
2. If it was an average of 25 miles to the public beach access facilities in St. Lucie County and an average of 25 miles to the facilities in Martin County, and there were 2 public beach access parking spaces in Martin County for every 1 space in St. Lucie County, 2/3 or 66.67% [(25 miles x 2.0) / ((25 miles x 2.0) + 25 miles)] of the residential / hotel units are considered to have the opportunity to use the public beach access facilities in Martin County, so the weighted relative proximity factor would be 66.67%.

The Weighted Relative Proximity Factors for the four proposed DRIs are as follows:

Table 3 – Weighted Relative Proximity Factors: **Beach Access**

DRI	Average Mileage to Facilities in St. Lucie	**Times** Weighting (# of parking spaces in Martin County for every 1 space in St. Lucie County)	**Equals** Weighted Average Mileage to Facilities St. Lucie	**Divided by** [Weighted Average Mileage to Facilities in St. Lucie + Average Mileage to Facilities in Martin]	**Equals** the Weighted Relative Proximity Factor, or % of Units Assessed
Western Grove	22.70	.935	21.23	[21.23 + 22.52] = 43.75	48.53%
Riverland-Kennedy	21.70	.935	20.29	[20.29 + 21.51] = 41.80	48.54%
Wilson Groves	23.78	.935	22.24	[22.24 + 23.59] = 45.84	48.52%

[4] See Appendix G for a locational map of the four proposed DRIs

DRI	Average Mileage to Facilities in St. Lucie	**Times** Weighting (# of parking spaces in Martin County for every 1 space in St. Lucie County)	**Equals** Weighted Average Mileage to Facilities St. Lucie	**Divided by** [Weighted Average Mileage to Facilities in St. Lucie + Average Mileage to Facilities in Martin]	**Equals** the Weighted Relative Proximity Factor, or % of Units Assessed
Southern Grove	21.81	.935	20.40	[20.40 + 21.63] = 42.02	48.54%

Table 4 – Weighted Relative Proximity Factors: **Boat Ramps**

DRI	Average Mileage to Facilities in St. Lucie	**Times** Weighting (# of boat ramp lanes in Martin County for every 1 lane in St. Lucie County)	**Equals** Weighted Average Mileage to Facilities St. Lucie	**Divided by** [Weighted Average Mileage to Facilities in St. Lucie + Average Mileage to Facilities in Martin]	**Equals** the Weighted Relative Proximity Factor, or % of Units Assessed
Western Grove	17.03	1.391	23.70	[23.70 + 20.10] = 43.80	54.11%
Riverland-Kennedy	16.03	1.391	22.30	[22.30 + 19.11] = 41.41	53.86%
Wilson Groves	18.11	1.391	25.20	[25.20 + 20.51] = 45.71	55.14%
Southern Grove	16.14	1.391	22.46	[22.46 + 19.33] = 41.79	53.75%

The total amount due for each DRI, by phase[5], is calculated by multiplying the cost per residential / hotel unit by the Weighted Relative Proximity Factor. On the following pages are the total amounts due by phase for each of the four proposed DRIs.

[5] Except that the fee per chargeable residential unit will change each year if tied to the change in the Consumer Price Index.

Table 5 – **Western Grove**: Calculations and Total Assessment Due by Phase

Average # of Persons per Residential Unit 2.50 (DRI application projects 2.5 persons per unit)

Beach Access Sites

Facility cost per Residential Unit $ 340.63 (Public facility costs per capita x Average # of persons per residential unit)

	# of Residential Units	Hotel Rooms	# of Units Assessed Based on Weighted Proximity Factor	Total Assessment[1]
Phase I	956	0	**464.0**	$ **158,040**
Phase II	1,478	0	**717.3**	$ **244,334**
Phase III	1,629	0	**790.6**	$ **269,296**
	0	0	**0.0**	$ -
	0	0	**0.0**	$ -
	4,063	0	**1,971.9**	$ **671,670**

	Average mileage from center of DRI to public beach access facilities in...		Weighting*	Weighted Mileage	Weighted Proximity Factor, or % of Units Assessed
St. Lucie County:	22.70	x	**0.935**	21.23	**48.53%**
Martin County:	22.52			22.52	
	45.22			43.75	

* Number of public beach access parking spaces in Martin County for every 1 parking space in St. Lucie County

Boat Ramps

Facility cost per Residential Unit $ 682.93 (Public facility costs per capita x Average # of persons per residential unit)

	# of Residental Units	Hotel Rooms	# of Units Assessed Based on Weighted Proximity Factor	Total Assessment[1]
Phase I	956	0	**517.3**	$ **353,269**
Phase II	1,478	0	**799.7**	$ **546,162**
Phase III	1,629	0	**881.4**	$ **601,961**
	0	0	**0.0**	$ -
	0	0	**0.0**	$ -
	4,063	0	**2,198.5**	$ **1,501,391**

	Average mileage from center of DRI to public boat ramps in...		Weighting*	Weighted Mileage	Weighted Proximity Factor, or % of Units Assessed
St. Lucie County:	17.03	x	**1.391**	23.70	**54.11%**
Martin County:	20.10			20.10	
	37.14			43.80	

* Number of public boat ramp lanes in Martin County for every 1 ramp lane in St. Lucie County

[1] The payment for phases beyond Phase I may be higher if the assessment per residential unit is increased annually by the consumer price index

Table 6 – **Riverland-Kennedy**: Calculations and Total Assessment Due by Phase

Average # of Persons per Residential Unit 2.31 (DRI application projects a population of 27,018 in 11,700 residential units, or 2.309 persons per unit)

Beach Access Sites

Facility cost per Residential Unit $ 314.74 (Public facility costs per capita x Average # of persons per residential unit)

	# of Residential Units	Hotel Rooms	# of Units Assessed Based on Weighted Proximity Factor	Total Assessment[1]
Phase I	2,500	0	1,213.5	$ 381,951
Phase II	7,901	0	3,835.3	$ 1,207,118
Phase III	1,299	0	630.6	$ 198,462
	0	0	0.0	$ -
	0	0	0.0	$ -
	11,700	0	5,679.4	$ 1,787,531

	Average mileage from center of DRI to public beach access facilities in...		Weighting*	Weighted Mileage	Weighted Proximity Factor, or % of Units Assessed
St. Lucie County:	21.70	x	**0.935**	20.29	**48.54%**
Martin County:	21.51			21.51	
	43.21			41.80	

* Number of public beach access parking spaces in Martin County for every 1 parking space in St. Lucie County

Boat Ramps

Facility cost per Residential Unit $ 631.03 (Public facility costs per capita x Average # of persons per residential unit)

	# of Residential Units	Hotel Rooms	# of Units Assessed Based on Weighted Proximity Factor	Total Assessment[1]
Phase I	2,500	0	1,346.5	$ 849,690
Phase II	7,901	0	4,255.5	$ 2,685,360
Phase III	1,299	0	699.7	$ 441,499
	0	0	0.0	$ -
	0	0	0.0	$ -
	11,700	0	6,301.7	$ 3,976,548

	Average mileage from center of DRI to public boat ramps in...		Weighting*	Weighted Mileage	Weighted Proximity Factor, or % of Units Assessed
St. Lucie County:	16.03	x	**1.391**	22.30	**53.86%**
Martin County:	19.11			19.11	
	35.14			41.41	

* Number of public boat ramp lanes in Martin County for every 1 ramp lane in St. Lucie County

[1] The payment for phases beyond Phase I may be higher if the assessment per residential unit is increased annually by the consumer price index

Table 7 – **Wilson Groves**: Calculations and Total Assessment Due by Phase

Average # of Persons per Residential Unit 2.24 (DRI application projects 17,434 in 7,700 residential units, or 2.24375 persons per unit)

Beach Access Sites

Facility cost per Residential Unit $ 305.71 (Public facility costs per capita x Average # of persons per residential unit)

	# of Residential Units	Hotel Rooms	# of Units Assessed Based on Weighted Proximity Factor	Total Assessment[1]
Phase I	2,200	0	1,067.5	$ 326,348
Phase II	4,094	0	1,986.5	$ 607,304
Phase III	1,406	0	682.2	$ 208,566
	0	0	0.0	$ -
	0	0	0.0	$ -
	7,700	0	3,736.2	$ 1,142,218

	Average mileage from center of DRI to public beach access facilities in...		Weighting*	Weighted Mileage	Weighted Proximity Factor, or % of Units Assessed
St. Lucie County:	23.78	x	**0.935**	22.24	**48.52%**
Martin County:	23.59			23.59	
	47.38			45.84	

* Number of public beach access parking spaces in Martin County for every 1 parking space in St. Lucie County

Boat Ramps

Facility cost per Residential Unit $ 612.93 (Public facility costs per capita x Average # of persons per residential unit)

	# of Residential Units	Hotel Rooms	# of Units Assessed Based on Weighted Proximity Factor	Total Assessment[1]
Phase I	2,200	0	1,213.1	$ 743,517
Phase II	4,094	0	2,257.4	$ 1,383,618
Phase III	1,406	0	775.3	$ 475,175
	0	0	0.0	$ -
	0	0	0.0	$ -
	7,700	0	4,245.7	$ 2,602,311

	Average mileage from center of DRI to public boat ramps in...		Weighting*	Weighted Mileage	Weighted Proximity Factor, or % of Units Assessed
St. Lucie County:	18.11	x	**1.391**	25.20	**55.14%**
Martin County:	20.51			20.51	
	38.62			45.71	

* Number of public boat ramp lanes in Martin County for every 1 ramp lane in St. Lucie County

[1] The payment for phases beyond Phase I may be higher if the assessment per residential unit is increased annually by the consumer price index

Table 8 – **Southern Grove**: Calculations and Total Assessment Due by Phase

Average # of Persons per Residential Unit	2.50	(DRI application projects 2.5 persons per unit)
Average # of Persons per Hotel Room per Night	0.75	(1.5 person per room per night; but assumes non-transient rate of 50%)

Beach Access Sites

Facility cost per Residential Unit	$ 340.63	(Public facility costs per capita x Average # of persons per residential unit)
Facility cost per Hotel Room	$ 102.19	(Public facility costs per capita x Average # of persons per hotel room per night)

	# of Residential Units	Hotel Rooms	# of Units Assessed Based on Weigthed Proximity Factor	Total Assessment[1]
Phase I	1,000	0	**485.4**	$ **165,343**
Phase II	2,950	100	**1,480.5**	$ **492,722**
Phase III	2,457	300	**1,338.3**	$ **421,128**
Phase IV	981	100	**524.7**	$ **167,162**
	0	0	**0.0**	$ -
	7,388	500	**3,828.9**	$ **1,246,355**

	Average mileage from center of DRI to public beach access facilities in...		Weighting*	Weighted Mileage	Weighted Proximity Factor, or % of Units Assessed
St. Lucie County:	21.81	x	**0.935**	20.40	**48.54%**
Martin County:	21.63			21.63	
	43.44			42.02	

* Number of public beach access parking spaces in Martin County for every 1 parking space in St. Lucie County

Boat Ramps

Facility cost per Residential Unit	$ 682.93	(Public facility costs per capita x Average # of persons per residential unit)
Facility cost per Hotel Room	$ 204.88	(Public facility costs per capita x Average # of persons per hotel room per night)

	# of Residential Units	Hotel Rooms	# of Units Assessed Based on Weighted Proximity Factor	Total Assessment[1]
Phase I	1,000	0	**537.5**	$ **367,078**
Phase II	2,950	100	**1,639.4**	$ **1,093,893**
Phase III	2,457	300	**1,481.9**	$ **934,949**
Phase IV	981	100	**581.0**	$ **371,116**
	0	0	**0.0**	$ -
	7,388	500	**4,239.8**	$ **2,767,037**

	Average mileage from center of DRI to public boat ramps in...		Weighting*	Weighted Mileage	Weighted Proximity Factor, or % of Units Assessed
St. Lucie County:	16.14	x	**1.391**	22.46	**53.75%**
Martin County:	19.33			19.33	
	35.47			41.79	

* Number of public boat ramp lanes in Martin County for every 1 ramp lane in St. Lucie County

[1] The payment for phases beyond Phase I may be higher if the assessment per residential unit is increased annually by the consumer price index

Martin County Parks and Recreation provided the location for all public beach access and boat ramp sites in Martin County. The locations of public beach access sites in St. Lucie County were obtained from physical maps and lists from the St. Lucie County Comprehensive Plan, Updated 2004; St. Lucie County website; St. Lucie County Parks and Recreation; Ft. Pierce Public Works; and state park employees.

The Distances worksheet, which includes parking space and boat ramp lane counts, is included in Appendix D.

Recommendation

It is recommended that the Facility Cost per Unit and the % of Units Assessed specified above be incorporated into the development order for each DRI, and that the resulting assessments for each phase be paid to Martin County prior to issuance either of any building permits for residential units or hotel rooms or of final plat approval. It is also recommended that Martin County develop project-specific construction plans for the location and timing of the facilities to be constructed with these assessment funds.

It is further recommended that the DRIs located in St. Lucie County receive credit for assessment fees paid to Martin County in any calculation of impact fees for beach access or boat ramp facilities imposed in the future by any local government jurisdiction in St. Lucie County. For instance, if an assessment fee was paid to Martin County for 45% of its residential / hotel units, then impact fees imposed by local jurisdictions in St. Lucie County should only be assessed against the remaining 55% of the units rather than all of the units.[6]

Recommended language for incorporation into the development orders of the four proposed DRIs in St. Lucie County is contained in Appendix E.

[6] Impact fees are not currently charged by St. Lucie County for beach access or boat ramp facilities. If the County were to adopt impact fees for these functions and add them to their parks and recreation impact fees at roughly the same rate as Martin County's proposed rates (see Appendix F), they would probably raise about $10 to $14 million from the four proposed DRIs specified in this report after crediting them for transfer payments made to Martin County as recommended herein.

Appendix A

CAPITAL COST WORKSHEET

Recent Boat Access Site

Comparables Land Sales by Deighan Consultants for Martin County

Land:		Sales	Acres	Cost per Acre	Cost per Parking Space
Comparable to Santa Lucea (land purchased in 2001)	Sale 1	$ 400,000	1.033		at <u>future</u> ideal of
	Sale 2	$ 900,000	1.324		70 spaces per
	Sale 3	$ 3,100,000	2.87		acre
	Sale 4	$ 1,125,000	0.8		
		$ 5,525,000	6.027	**$ 916,708**	$ 13,096
	(If purchased inland and visitors bused to beach) [1]			*50%*	
				$ 458,354	

Improvements:		Costs	Cost per Parking Space
Based on St Lucea improvements	Consultant Costs	$ 54,550	
	Construction Costs	$ 412,900	
Parking Spaces 47		$ 467,450	$ 9,946

[1]Martin County estimated that inland land would cost 50% as much as beach property for providing parking and determined it might be feasible to purchase inland property for future beach access sites and bus visitors to the beach. This 50% adjustment was not used in this study because the operational costs of such busing would need to be added back to determine the appropriate assessment payments to Martin County for the potential use of beach access and boat ramps in Martin County resulting from Developments of Regional Impact proposed for St. Lucie County.

Recent Boat Ramp

Comparables Land Sales by Deighan Consultants for Martin County

Land:		Sales	Acres	Cost per Acre	Cost per Ramp Lane
Comparable to CARP Parcel land purchase in October	Sale 1	$ 1,325,000	1.07		at 1.67 ramps
2004 (2.4 upland acres on Indian River Drive)	Sale 2	$ 2,400,000	2.954		lanes per acre[2]
	Sale 3	$ 4,900,000	1.43		
		$ 8,625,000	5.454	**$ 1,581,408**	$ 948,845

Improvements:		Costs	Cost per Ramp Lane
Based on planned CARP Parcel improvements	Consultant Costs (bid)	$ 150,000	
	Construction Costs (bid)	$ 1,500,000	
Ramp Lanes 2		$ 1,650,000	$ 825,000

[2]based on if 4 ramp lanes were able to be placed on the 2.4 acre CARP parcel (1.67 ramp lanes per acre), which is what Martin County used to calculate a per acre land cost for the impact fee study by Dr. Nicholas

Appendix B

Capital Cost Summary Worksheet

Martin County 2005 Peak Population: 165,722 (from Martin County Growth Management Department)

Beach Access Sites	Park (put X where applicable)	Access Site Only (put X where applicable)	Acres (for entire park)	Defined Paved / Unpaved Parking Spaces	Land Costs based on cost per parking space of $6,548[1]	Improvement Costs based on cost per parking space of $9,946[2]	Total Capital Costs
Bathtub Reef	x		12.0	167	$ 1,093,502	$ 1,660,939	$ 2,754,441
Beach Walk Pasley		x	19.1	15	$ 98,219	$ 149,186	$ 247,405
Bob Graham		x	13.5	69	$ 451,806	$ 686,256	$ 1,138,063
Bryn Mawr		x	0.7	23	$ 150,602	$ 228,752	$ 379,354
Chastain	x		107.0	30	$ 196,437	$ 298,372	$ 494,810
Fletcher		x	1.3	5	$ 32,740	$ 49,729	$ 82,468
Glasscock		x	0.8	28	$ 183,342	$ 278,481	$ 461,822
Hobe Sound	x		2.7	90	$ 589,312	$ 895,117	$ 1,484,429
House of Refuge	x		9.5	20	$ 130,958	$ 198,915	$ 329,873
Jensen Beach	x		28.5	495	$ 3,241,218	$ 4,923,144	$ 8,164,362
Santa Lucea		x	10.4	47	$ 307,752	$ 467,450	$ 775,202
Stokes		x	0.2	10	$ 65,479	$ 99,457	$ 164,937
Stuart	x		81.0	242	$ 1,584,596	$ 2,406,870	$ 3,991,466
Tiger Shores		x	1.1	23	$ 150,602	$ 228,752	$ 379,354
Virginia Forrest		x	1.0	18	$ 117,862	$ 179,023	$ 296,886
Wildlife Refuge (not county-owned/operated)	x		0.0	87	$ 569,669	$ 865,280	$ 1,434,948
			0.0	0	$ -	$ -	$ -
		Total	321.4	1,369	$ 8,964,096	$ 13,615,724	$ 22,579,821
Computed Current LOS of parking spaces per 1,000 residents				8.261			
Planned LOS of parking spaces per 1,000 residents				9.000			

Boat Ramps	Park (put X where applicable)	Boat Ramp Only (put X where applicable)	# of Ramp Lanes	Acres (for entire park)	Defined Paved / Unpaved Parking Spaces	Land Costs based on cost per boat ramp lane of $948,845[1]	Improvement Costs based on cost per boat ramp lane of $825,000[2]	Total Capital Costs
Broward Street		x	1	1	10	$ 948,845	$ 825,000	$ 1,773,845
C-23 Canal Park		x	2	1	20	$ 1,897,690	$ 1,650,000	$ 3,547,690
J&S Fish Camp		x	2	4	40	$ 1,897,690	$ 1,650,000	$ 3,547,690
Jensen Beach Causeway	x		5	15.8	62	$ 4,744,224	$ 4,125,000	$ 8,869,224
Jimmy Graham Park (only boat ramp now)		x	2	25.1	40	$ 1,897,690	$ 1,650,000	$ 3,547,690
Leighton Park	x		3	3.9	20	$ 2,846,535	$ 2,475,000	$ 5,321,535
Phipps Park	x		2	59.7	40	$ 1,897,690	$ 1,650,000	$ 3,547,690
Sandsprit Park	x		7	13.9	141	$ 6,641,914	$ 5,775,000	$ 12,416,914
Shepard Park - City of Stuart (not co.-owned/operated)	x		2	0	10	$ 1,897,690	$ 1,650,000	$ 3,547,690
Stuart Causeway	x		3	14.9	50	$ 2,846,535	$ 2,475,000	$ 5,321,535
St. Lucie Locks (not county-owned/operated)	x		1	0	18	$ 948,845	$ 825,000	$ 1,773,845
Timer Powers	x		2	39.7	18	$ 1,897,690	$ 1,650,000	$ 3,547,690
			0	0	0	$ -	$ -	$ -
			0	0	0	$ -	$ -	$ -
			0	0	0	$ -	$ -	$ -
		Total	32	181.4	469	$ 30,363,036	$ 26,400,000	$ 56,763,036
Computed Current LOS of parking ramp lanes per 1,000 residents			0.193					
Planned LOS of parking ramp lanes per 1,000 residents			0.154					

Source: Martin County Parks and Recreation, 2005

[1] Based on sales prices comparable to most recent boat ramp and beach access site projects

[2] Based on actual cost of improvements at most recent boat ramp and beach access site projects under or planned for construction

Appendix C

COST PER UNIT & PER CAPITA - CAPITAL ONLY

(per capita cost based on lower of current or planned LOS)

Beach Access Sites	Defined Paved / Unpaved Parking Spaces	Capital Cost per Parking Space	Capital Cost per Capita at Current LOS	Capital Cost per Capita at Planned LOS	Capital Cost per Capita at Lower LOS
	1,369	$ 16,494	$ 136.25	$ 148.44	$ 136.25
Computed Current LOS of parking spaces per 1,000 residents (peak popn.)	8.261				
Planned LOS of parking spaces per 1,000 residents	9.000				

Boat Ramps	# of Ramps	Defined Paved / Unpaved Parking Spaces	Capital Cost per Boat Ramp Lane	Capital Cost per Capita at Current LOS	Capital Cost per Capita at Planned LOS	Capital Cost per Capita at Lower LOS
	32	469	$ 1,773,845	$ 342.52	$ 273.17	$ 273.17
Computed Current LOS of parking ramp lanes per 1,000 residents (peak popn.)	0.193					
Planned LOS of parking ramp lanes per 1,000 residents	0.154					

Appendix D

WORKSHEET FOR DISTANCES FROM DRIs TO FACILITIES

	Western Grove	Riverland	Wilson Groves	Southern Grove	Western Grove	Riverland	Wilson Groves	Southern Grove	
Martin County									
Beach Access Sites with parking facilities		Distance in Feet				Distance in Miles			# of Parking Spaces
Bathtub Reef	127,300	122,000	133,000	122,600	24.1	23.1	25.2	23.2	167
Beach Walk Pasley	100,800	95,500	106,500	96,100	19.1	18.1	20.2	18.2	15
Bob Graham	99,000	93,700	104,700	94,300	18.8	17.7	19.8	17.9	69
Bryn Mawr	101,900	96,600	107,600	97,200	19.3	18.3	20.4	18.4	23
Chastain	125,600	120,300	131,300	120,900	23.8	22.8	24.9	22.9	30
Fletcher	119,700	114,400	125,400	115,000	22.7	21.7	23.8	21.8	5
Glasscock	97,400	92,100	103,100	92,700	18.4	17.4	19.5	17.6	28
Hobe Sound	167,300	162,000	173,000	162,600	31.7	30.7	32.8	30.8	90
House of Refuge	122,500	117,200	128,200	117,800	23.2	22.2	24.3	22.3	20
Jensen Beach	94,800	89,500	100,500	90,100	18.0	17.0	19.0	17.1	495
Santa Lucea	119,200	113,900	124,900	114,500	22.6	21.6	23.7	21.7	47
Stokes	103,800	98,500	109,500	99,100	19.7	18.7	20.7	18.8	10
Stuart	110,700	105,400	116,400	106,000	21.0	20.0	22.0	20.1	242
Tiger Shores	108,500	103,200	114,200	103,800	20.5	19.5	21.6	19.7	23
Virginia Forrest	127,300	122,000	133,000	122,600	24.1	23.1	25.2	23.2	18
Wildlife Refuge (not county-owned/operated)	176,300	171,000	182,000	171,600	33.4	32.4	34.5	32.5	87
									1,369
				Average =	22.52	21.51	23.59	21.63	
Boat Ramps		Distance in Feet				Distance in Miles			# of Boat Ramp Lanes
Broward Street	118,300	113,000	124,000	113,600	22.4	21.4	23.5	21.5	1
C-23 Canal Park	90,300	85,000	96,000	85,600	17.1	16.1	18.2	16.2	2
J&S Fish Camp	100,500	95,500	84,800	99,500	19.0	18.1	16.1	18.8	2
Leighton Park	98,300	93,000	104,000	93,600	18.6	17.6	19.7	17.7	3
Phipps Park	108,300	103,000	114,000	103,600	20.5	19.5	21.6	19.6	2
Sandsprit Park	115,300	110,000	121,000	110,600	21.8	20.8	22.9	20.9	7
Shepard Park - City of Stuart (not co.-owned/operated)	88,300	83,000	94,000	83,600	16.7	15.7	17.8	15.8	2
Stuart Causeway	110,300	105,000	116,000	105,600	20.9	19.9	22.0	20.0	3
St. Lucie Locks (not county-owned/operated)	113,300	108,000	119,000	108,600	21.5	20.5	22.5	20.6	1
Timer Powers	101,200	96,200	85,500	100,200	19.2	18.2	16.2	19.0	2
									32
				Average =	20.10	19.11	20.51	19.33	
St. Lucie County									
Beach Access Sites with parking facilitites		Distance in Feet				Distance in Miles			# of Parking Spaces
Avalon Park	131,300	126,000	137,000	126,600	24.9	23.9	25.9	24.0	40
Pepper Park	117,800	112,500	123,500	113,100	22.3	21.3	23.4	21.4	425
Ft. Pierce Inlet State Recreation Area/North Jetty	113,300	108,000	119,000	108,600	21.5	20.5	22.5	20.6	438
South Jetty Park & Fishing Pier	109,800	104,500	115,500	105,100	20.8	19.8	21.9	19.9	47
Porpoise Avenue	111,300	106,000	117,000	106,600	21.1	20.1	22.2	20.2	6
Gulfstream	111,900	106,600	117,600	107,200	21.2	20.2	22.3	20.3	6
South Beach Boardwalk	114,300	109,000	120,000	109,600	21.6	20.6	22.7	20.8	82
Kimberly Bergalis Park	116,000	110,700	121,700	111,300	22.0	21.0	23.0	21.1	68
Surfside	116,000	110,700	121,700	111,300	22.0	21.0	23.0	21.1	22
Coconut Drive	117,800	112,500	123,500	113,100	22.3	21.3	23.4	21.4	25
John Brooks	123,700	118,400	129,400	119,000	23.4	22.4	24.5	22.5	18
Fred Douglas	130,600	125,300	136,300	125,900	24.7	23.7	25.8	23.8	48
Blue Heron	134,300	129,000	140,000	129,600	25.4	24.4	26.5	24.5	58
Middle Cove	137,300	132,000	143,000	132,600	26.0	25.0	27.1	25.1	8
Blind Creek	136,800	131,500	142,500	132,100	25.9	24.9	27.0	25.0	6
Walton Rocks - Dog Beach	127,100	121,800	132,800	122,400	24.1	23.1	25.2	23.2	48
Normandy Access	114,800	109,500	120,500	110,100	21.7	20.7	22.8	20.9	9
Dollman	111,800	106,500	117,500	107,100	21.2	20.2	22.3	20.3	40
Waveland Beach	101,800	96,500	107,500	97,100	19.3	18.3	20.4	18.4	70
									1,464
				Average =	22.70	21.70	23.78	21.81	
Boat Ramps		Distance in Feet				Distance in Miles			# of Boat Ramp Lanes
Rivergate Park	52,300	47,000	58,000	47,600	9.9	8.9	11.0	9.0	2
Prima Vista	59,800	54,500	65,500	55,100	11.3	10.3	12.4	10.4	2
White City Park	77,300	72,000	83,000	72,600	14.6	13.6	15.7	13.8	2
Moore's Creek	95,700	90,400	101,400	91,000	18.1	17.1	19.2	17.2	4
Black Pearl	98,300	93,000	104,000	93,600	18.6	17.6	19.7	17.7	2
South Causeway	100,800	95,500	106,500	96,100	19.1	18.1	20.2	18.2	2
North Causeway (Banty Saunders)	106,800	101,500	112,500	102,100	20.2	19.2	21.3	19.3	4
Stan Blum	108,800	103,500	114,500	104,100	20.6	19.6	21.7	19.7	4
Little Jim's Bridge	109,700	104,400	115,400	105,000	20.8	19.8	21.9	19.9	1
				Average =	17.03	16.03	18.11	16.14	23

Source for Martin County locational data: Martin County Parks and Recreation and GIS information provided by Martin County Geographic Information System Unit, 2005.

Sources for St. Lucie County locational data: physical maps and lists from the St. Lucie County Comprehensive Plan, Updated 2004; St. Lucie County website; St. Lucie County Parks and Recreation; Ft. Pierce Public Works; and state park employees at facilities.

Distances over driveable land were generated using GIS mapping capabilities.

Counts for beach parking spaces and boat ramp lanes provided by Martin County Parks and Recreation, St. Lucie County Parks and Recreation, Ft. Pierce Public Works, and state employees at state facilities in St. Lucie County.

Appendix E

Draft Recommended Language for Western Grove DRI Development Order for Beach Access Sites and Boat Ramp Facilities

In order to mitigate the adverse impacts of the Western Grove Development of Regional Impact (DRI) on public access to beaches and boat ramp facilities in Martin County, an assessment shall be paid to Martin County for the purpose of funding new beach access sites and boat ramp facilities. Prior to issuance of any building permit for construction of residential units or hotel rooms for each phase *(alternatively, at final plan approval)*, the following assessment shall be paid to Martin County Government:

	Facility Cost per Unit[1] (in 2005 dollars[2])	**% of Units Assessed** (based on Weighted Relative Proximity to Facilities in Each County[3])
For Beach Access Sites:		
Residential Units	$340.63	48.53 %
For Boat Ramp Facilities:		
Residential Units	$682.93	54.11 %

[1] The facility cost per unit is the capital cost per capita for facilities in Martin County times the 2.5 persons per residential unit projected in the Western Grove DRI application.

[2] The facility cost per unit shall be adjusted each year by the change in the Consumer Price Index (U.S. Department of Labor, Bureau of Labor Statistics, U.S. city average, 1982-84=100, 9/15/2005)

[3] The weighted relative proximity factor is the percentage that results when the average distance to public facilities in St. Lucie County, weighted by the number of beach parking spaces/boat ramp lanes in Martin County for every 1 parking space/boat ramp lane in St. Lucie County, is divided by the sum of the weighted average distance to public facilities in St. Lucie County plus the average distance to public facilities in Martin County, although no fee will be charged if the average mileage to facilities in Martin County is more than twice the weighted average mileage to facilities in St. Lucie County.

Examples: If it was an average of 50 miles to the public beach access facilities in St. Lucie County and an average of 25 miles to the facilities in Martin County, and there was 1 public beach access parking space in Martin County for every 1 space in St. Lucie County, 2/3 or 66.67% [(50 miles x 1.0) / ((50 miles x 1.0) + 25 miles)] of the residential / hotel units are considered to have the opportunity to use public beach access facilities in Martin County, so the weighted relative proximity factor would be 66.67%.

If it was an average of 25 miles to the public beach access facilities in St. Lucie County and an average of 25 miles to the facilities in Martin County, and there were 2 public beach access parking spaces in Martin County for every 1 space in St. Lucie County, 2/3 or 66.67% [(25 miles x 2.0) / ((25 miles x 2.0) + 25 miles)] of the residential / hotel units are considered to have the opportunity to use public beach access facilities in Martin County, so the weighted relative proximity factor would be 66.67%.

The calculation of the total assessment for each phase for beach access sites and boat ramp facilities, separately, shall be as follows:

Facility Cost per Unit (2005 cost adjusted to the year residential construction begins for the phase)
Times The # of proposed residential units approved in the development order for the phase
Times The % of units assessed (weighted relative proximity factor)

Martin County shall use these assessment funds solely for the purpose of constructing new beach access sites and new boat ramp facilities as specified in construction plans indicating the location and timing of these facilities. In Phase I, at least 1 new beach access site parking space shall be provided for each $16,494 of beach access assessment funds received, and at least 1 new boat ramp lane shall be provided for each $1,773,845 of boat ramp assessment funds received. In subsequent phases, the $16,494 per parking space and $1,773,845 per boat ramp shall be adjusted by the change in the Consumer Price Index from the start of Phase I to the start of the subsequent phase.

No credits have been provided for either past or future property taxes, debt service payments, or grant funds paid to Martin County to provide these facilities because they do not apply to Western Grove residents.

The DRI should also receive credit for assessment fees paid to Martin County in any calculation of impact fees for beach access or boat ramp facilities imposed in the future by any local government jurisdiction in St. Lucie County. In other words, only the 51.47% (100% - 48.53%) of Western Grove's units that were not assessed for Martin County purposes should be charged a beach access impact fee and only 45.89% (100% - 54.11%) of the units should be charged a boat ramp impact fee imposed by a local government jurisdiction in St. Lucie County.

Government Services Group, Inc.
March 2006

Draft Recommended Language for Riverland-Kennedy DRI Development Order for Beach Access Sites and Boat Ramp Facilities

In order to mitigate the adverse impacts of the Riverland-Kennedy Development of Regional Impact (DRI) on public access to beaches and boat ramp facilities in Martin County, an assessment shall be paid to Martin County for the purpose of funding new beach access sites and boat ramp facilities. Prior to issuance of any building permit for construction of residential units or hotel rooms for each phase *(alternatively, at final plan approval)*, the following assessment shall be paid to Martin County Government:

	Facility Cost per Unit[1] (in 2005 dollars[2])	**% of Units Assessed** (based on Weighted Relative Proximity to Facilities in Each County[3])
For Beach Access Sites: Residential Units	$314.74	48.54 %
For Boat Ramp Facilities: Residential Units	$631.03	53.86 %

[1] The facility cost per unit is the capital cost per capita for facilities in Martin County times the 2.31 persons per residential unit projected in the Riverland-Kennedy DRI application.

[2] The facility cost per unit shall be adjusted each year by the change in the Consumer Price Index (U.S. Department of Labor, Bureau of Labor Statistics, U.S. city average, 1982-84=100, 9/15/2005)

[3] The weighted relative proximity factor is the percentage that results when the average distance to public facilities in St. Lucie County, weighted by the number of beach parking spaces/boat ramp lanes in Martin County for every 1 parking space/boat ramp lane in St. Lucie County, is divided by the sum of the weighted average distance to public facilities in St. Lucie County plus the average distance to public facilities in Martin County, although no fee will be charged if the average mileage to facilities in Martin County is more than twice the weighted average mileage to facilities in St. Lucie County.

Examples: If it was an average of 50 miles to the public beach access facilities in St. Lucie County and an average of 25 miles to the facilities in Martin County, and there was 1 public beach access parking space in Martin County for every 1 space in St. Lucie County, 2/3 or 66.67% [(50 miles x 1.0) / ((50 miles x 1.0) + 25 miles)] of the residential / hotel units are considered to have the opportunity to use public beach access facilities in Martin County, so the weighted relative proximity factor would be 66.67%.

If it was an average of 25 miles to the public beach access facilities in St. Lucie County and an average of 25 miles to the facilities in Martin County, and there were 2 public beach access parking spaces in Martin County for every 1 space in St. Lucie County, 2/3 or 66.67% [(25 miles x 2.0) / ((25 miles x 2.0) + 25 miles)] of the residential / hotel units are considered to have the opportunity to use public beach access facilities in Martin County, so the weighted relative proximity factor would be 66.67%.

The calculation of the total assessment for each phase for beach access sites and boat ramp facilities, separately, shall be as follows:

Facility Cost per Unit (2005 cost adjusted to the year residential construction begins for the phase)

Times The # of proposed residential units approved in the development order for the phase

Times The % of units assessed (weighted relative proximity factor

Martin County shall use these assessment funds solely for the purpose of constructing new beach access sites and new boat ramp facilities as specified in construction plans indicating the location and timing of these facilities. In Phase I, at least 1 new beach access site parking space shall be provided for each $16,494 of beach access assessment funds received, and at least 1 new boat ramp lane shall be provided for each $1,773,845 of boat ramp assessment funds received. In subsequent phases, the $16,494 per parking space and $1,773,845 per boat ramp shall be adjusted by the change in the Consumer Price Index from the start of Phase I to the start of the subsequent phase.

No credits have been provided for either past or future property taxes, debt service payments, or grant funds paid to Martin County to provide these facilities because they do not apply to Riverland-Kennedy residents.

The DRI should also receive credit for assessment fees paid to Martin County in any calculation of impact fees for beach access or boat ramp facilities imposed in the future by any local government jurisdiction in St. Lucie County. In other words, only the 51.46% (100% - 48.54%) of Riverland-Kennedy's units that were not assessed for Martin County purposes should be charged a beach access impact fee and only 46.14% (100% - 53.86%) of the units should be charged a boat ramp impact fee imposed by a local government jurisdiction in St. Lucie County.

Government Services Group, Inc.
March 2006

Draft Recommended Language for the Wilson Groves DRI Development Order for for Beach Access Sites and Boat Ramp Facilities

In order to mitigate the adverse impacts of the Wilson Groves Development of Regional Impact (DRI) on public access to beaches and boat ramp facilities in Martin County, an assessment shall be paid to Martin County for the purpose of funding new beach access sites and boat ramp facilities. Prior to issuance of any building permit for construction of residential units or hotel rooms for each phase *(alternatively, at final plan approval)*, the following assessment shall be paid to Martin County Government:

	Facility Cost per Unit[1] (in 2005 dollars[2])	**% of Units Assessed** (based on Weighted Relative Proximity to Facilities in Each County[3])
For Beach Access Sites:		
Residential Units	$305.71	48.52 %
For Boat Ramp Facilities:		
Residential Units	$612.93	55.14 %

[1] The facility cost per unit is the capital cost per capita for facilities in Martin County times the 2.24 persons per residential unit projected in the Wilson Groves DRI application.

[2] The facility cost per unit shall be adjusted each year by the change in the Consumer Price Index (U.S. Department of Labor, Bureau of Labor Statistics, U.S. city average, 1982-84=100, 9/15/2005)

[3] The weighted relative proximity factor is the percentage that results when the average distance to public facilities in St. Lucie County, weighted by the number of beach parking spaces/boat ramp lanes in Martin County for every 1 parking space/boat ramp lane in St. Lucie County, is divided by the sum of the weighted average distance to public facilities in St. Lucie County plus the average distance to public facilities in Martin County, although no fee will be charged if the average mileage to facilities in Martin County is more than twice the weighted average mileage to facilities in St. Lucie County.

Examples: If it was an average of 50 miles to the public beach access facilities in St. Lucie County and an average of 25 miles to the facilities in Martin County, and there was 1 public beach access parking space in Martin County for every 1 space in St. Lucie County, 2/3 or 66.67% [(50 miles x 1.0) / ((50 miles x 1.0) + 25 miles)] of the residential / hotel units are considered to have the opportunity to use public beach access facilities in Martin County, so the weighted relative proximity factor would be 66.67%.

If it was an average of 25 miles to the public beach access facilities in St. Lucie County and an average of 25 miles to the facilities in Martin County, and there were 2 public beach access parking spaces in Martin County for every 1 space in St. Lucie County, 2/3 or 66.67% [(25 miles x 2.0) / ((25 miles x 2.0) + 25 miles)] of the residential / hotel units are considered to have the opportunity to use public beach access facilities in Martin County, so the weighted relative proximity factor would be 66.67%.

The calculation of the total assessment for each phase for beach access sites and boat ramp facilities, separately, shall be as follows:

Facility Cost per Unit (2005 cost adjusted to the year residential construction begins for the phase)

Times The # of proposed residential units approved in the development order for the phase

Times The % of units assessed (weighted relative proximity factor

Martin County shall use these assessment funds solely for the purpose of constructing new beach access sites and new boat ramp facilities as specified in construction plans indicating the location and timing of these facilities. In Phase I, at least 1 new beach access site parking space shall be provided for each $16,494 of beach access assessment funds received, and at least 1 new boat ramp lane shall be provided for each $1,773,845 of boat ramp assessment funds received. In subsequent phases, the $16,494 per parking space and $1,773,845 per boat ramp shall be adjusted by the change in the Consumer Price Index from the start of Phase I to the start of the subsequent phase.

No credits have been provided for either past or future property taxes, debt service payments, or grant funds paid to Martin County to provide these facilities because they do not apply to Wilson Groves residents.

The DRI should also receive credit for assessment fees paid to Martin County in any calculation of impact fees for beach access or boat ramp facilities imposed in the future by any local government jurisdiction in St. Lucie County. In other words, only the 51.48% (100% - 48.52%) of Wilson Groves' units that were not assessed for Martin County purposes should be charged a beach access impact fee and only 44.86% (100% - 55.14%) of the units should be charged a boat ramp impact fee imposed by a local government jurisdiction in St. Lucie County.

Government Services Group, Inc.
March 2006

Draft Recommended Language for the Southern Grove DRI Development Order for Beach Access Sites and Boat Ramp Facilities

In order to mitigate the adverse impacts of the Southern Grove Development of Regional Impact (DRI) on public access to beaches and boat ramp facilities in Martin County, an assessment shall be paid to Martin County for the purpose of funding new beach access sites and boat ramp facilities. Prior to issuance of any building permit for construction of residential units or hotel rooms for each phase *(alternatively, at final plan approval)*, the following assessment shall be paid to Martin County Government:

	Facility Cost per Unit/Room[1] (in 2005 dollars[2])	**% of Units Assessed** (based on Weighted Relative Proximity to Facilities in Each County[3])
For Beach Access Sites:		
Residential Units	$340.63	48.54 %
Hotel Rooms	$102.19	
For Boat Ramp Facilities:		
Residential Units	$682.93	53.75 %
Hotel Rooms	$204.88	

[1] The facility cost per unit is the capital cost per capita for facilities in Martin County times the 2.5 persons per residential unit projected in the Southern Grove DRI application or the .75 persons per room per night for hotel rooms (1.5 persons per room per night, with a non-transient rate of 50%).

[2] The facility cost per unit shall be adjusted each year by the change in the Consumer Price Index (U.S. Department of Labor, Bureau of Labor Statistics, U.S. city average, 1982-84=100, 9/15/2005)

[3] The weighted relative proximity factor is the percentage that results when the average distance to public facilities in St. Lucie County, weighted by the number of beach parking spaces/boat ramp lanes in Martin County for every 1 parking space/boat ramp lane in St. Lucie County, is divided by the sum of the weighted average distance to public facilities in St. Lucie County plus the average distance to public facilities in Martin County, although no fee will be charged if the average mileage to facilities in Martin County is more than twice the weighted average mileage to facilities in St. Lucie County.

Examples: If it was an average of 50 miles to the public beach access facilities in St. Lucie County and an average of 25 miles to the facilities in Martin County, and there was 1 public beach access parking space in Martin County for every 1 space in St. Lucie County, 2/3 or 66.67% [(50 miles x 1.0) / ((50 miles x 1.0) + 25 miles)] of the residential / hotel units are considered to have the opportunity to use public beach access facilities in Martin County, so the weighted relative proximity factor would be 66.67%.

If it was an average of 25 miles to the public beach access facilities in St. Lucie County and an average of 25 miles to the facilities in Martin County, and there were 2 public beach access parking spaces in Martin County for every 1 space in St. Lucie County, 2/3 or 66.67% [(25 miles x 2.0) / ((25 miles x 2.0) + 25 miles)] of the residential / hotel units are considered to have the opportunity to use public beach access facilities in Martin County, so the weighted relative proximity factor would be 66.67%.

The calculation of the total assessment for each phase for beach access sites and boat ramp facilities, separately, shall be as follows:

Facility Cost per Unit/Room (2005 cost adjusted to the year residential/hotel construction begins for the phase)

Times The # of proposed residential units/hotel rooms approved in the development order for the phase

Times The % of units assessed (weighted relative proximity factor

Martin County shall use these assessment funds solely for the purpose of constructing new beach access sites and new boat ramp facilities as specified in construction plans indicating the location and timing of these facilities. In Phase I, at least 1 new beach access site parking space shall be provided for each $16,494 of beach access assessment funds received, and at least 1 new boat ramp lane shall be provided for each $1,773,845 of boat ramp assessment funds received. In subsequent phases, the $16,494 per parking space and $1,773,845 per boat ramp shall be adjusted by the change in the Consumer Price Index from the start of Phase I to the start of the subsequent phase.

No credits have been provided for either past or future property taxes, debt service payments, or grant funds paid to Martin County to provide these facilities because they do not apply to Southern Grove residents.

The DRI should also receive credit for assessment fees paid to Martin County in any calculation of impact fees for beach access or boat ramp facilities imposed in the future by any local government jurisdiction in St. Lucie County. In other words, only the 51.46% (100% - 48.54%) of Southern Grove's units that were not assessed for Martin County purposes should be charged a beach access impact fee and only 46.25% (100% - 53.75%) of the units should be charged a boat ramp impact fee imposed by a local government jurisdiction in St. Lucie County.

Government Services Group, Inc.
March 2006

Appendix F

Below are the current and proposed per residential unit impact fees in Martin County for public beach access and boat ramps:

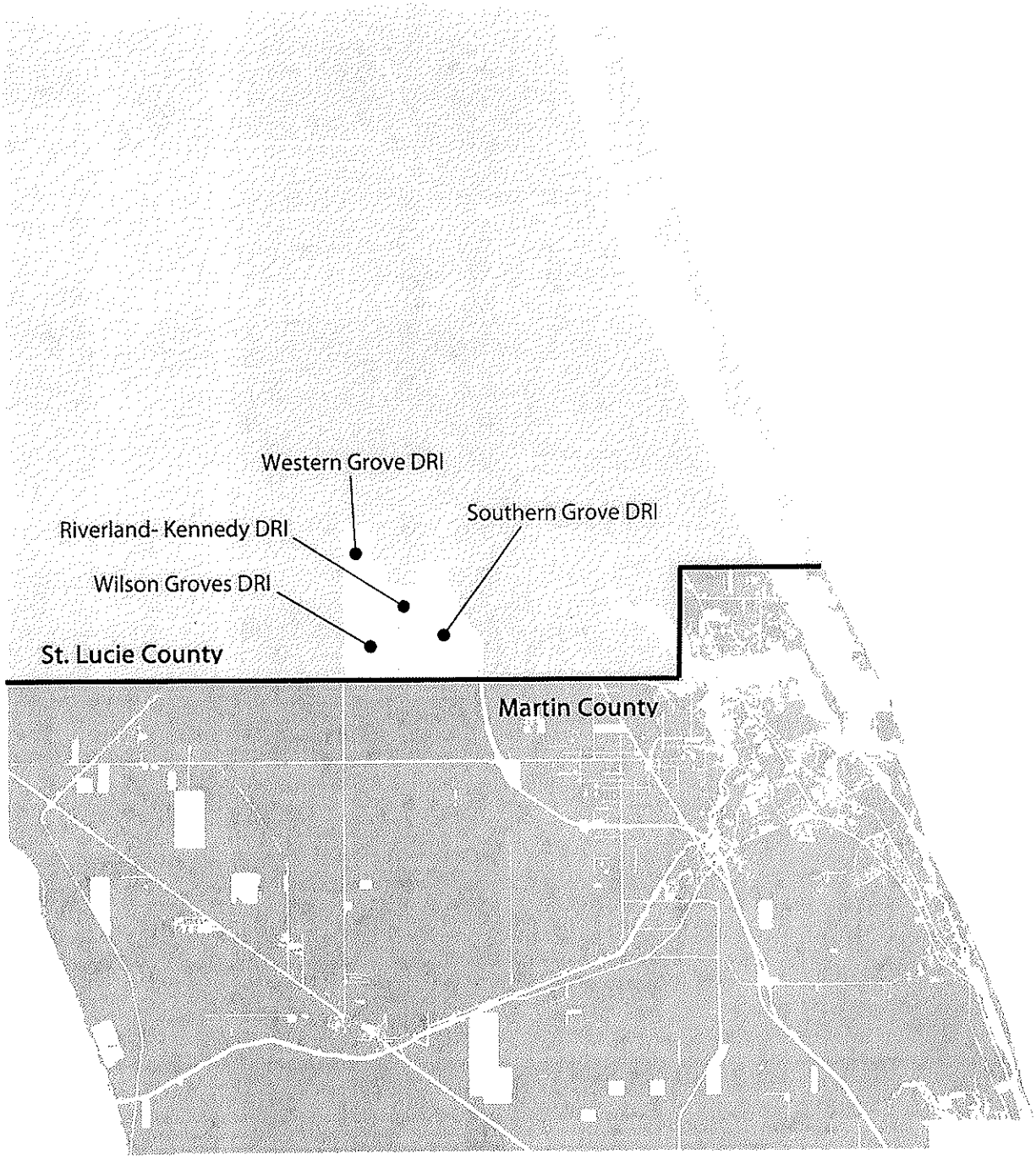
	Current	Proposed – Fall 2005
Beach Access Sites		
800 ft^2 & Under	$61.64	$178.40
801 to 1,100	$91.86	$265.83
1,100 to 2,300	$95.46	$276.38
2,301 & Over	**$98.71**	**$285.68**
Hotel/Motel Room	**$32.77**	**$86.05**
Boat Ramps		
800 ft^2 & Under	$174.62	$304.24
801 to 1,100	$260.26	$453.32
1,100 to 2,300	$270.48	$471.32
2,301 & Over	**$279.68**	**$487.17**
Hotel/Motel Room	**$92.84**	**$146.74**

Source: Technical Memorandum on Methods for Updating Roads, Public Buildings, Law Enforcement, Emergency Management Service, Public Library, and Parks and Recreation Impact Fees (Martin County), James P. Nicholas, Ph.D., Final, August 2005

The fees above already reflect a credit for past tax payments paid by and future tax and debt service payments and grant funds to be paid by or on behalf of new residential units in Martin County that will be used to fund new beach access and boat ramp facilities. These non-impact fee revenues and the revenues generated by the impact fees are used in combination to pay for new facilities. The credits already applied to the proposed impact fees amount to approximately 17% for beach access and 26% for boat ramps.

Appendix G

Locational map of the four proposed DRIs:



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