

SUSTAINABLE POLK

GROWTH MANAGEMENT INITIATIVES



NOVEMBER 6, 2009

Agenda

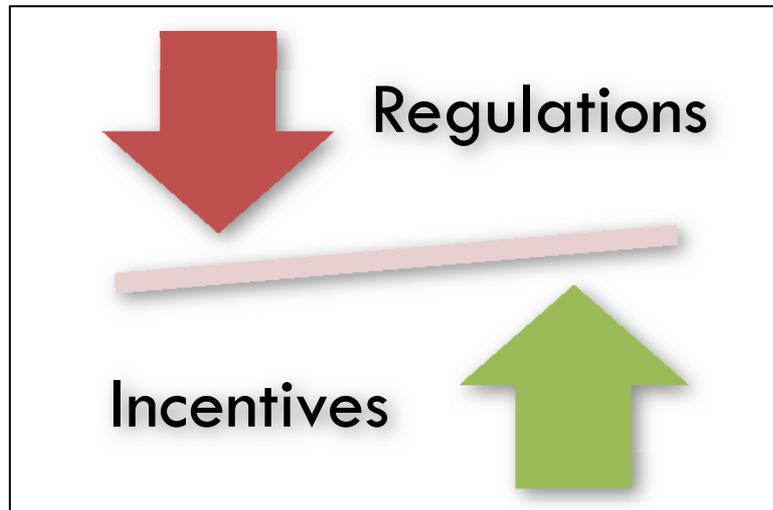


- Welcoming Remarks
- Initiative – Reduce Energy Use
- Initiative – Conserve Land and Natural Resources
- Open Questions
- Closing Remarks

Welcoming Remarks

- Commissioner Sam Johnson
BoCC Chairman
- Commissioner Jean Reed
PTA Chairman
- Danny Ours
PTA Executive Director

Introduction



<p>DRAFT FOR DISCUSSION PURPOSES</p> <p>DRAFT COMPREHENSIVE PLAN POLICIES</p> <p>HEALTHY COMMUNITIES INITIATIVE GREEN BUILDING PRACTICES</p> <p>The attached draft policies are based on the concepts discussed at Urban Form Focus Group Meetings. The proposed text is intended to be part of the Future Land Use Element under a new Community Design Section. All of the draft text represents new language.</p> <p>Please submit any comments, suggestions or questions to Albert "Tref" Treadwell or Ann Mortimer-Mitchell in the Long Range Planning Division.</p> <p>Email: atreadwell@polk-county.net amortimer@polk-county.net</p>	<p>DRAFT FOR DISCUSSION PURPOSES</p> <p>DRAFT COMPREHENSIVE PLAN POLICIES</p> <p>CONSERVATION DEVELOPMENTS POLKGREEN OVERLAY</p> <p>The attached draft policies are based on the concepts discussed at Urban Form Focus Group Meetings. The proposed text is intended to be part of the Future Land Use Element under a new Community Design Section. The text for the PolkGreen Overlay is replacement text for Section 2.124-C Green-Way District.</p> <p>Please submit any comments, suggestions or questions to Albert "Tref" Treadwell or Ann Mortimer-Mitchell in the Long Range Planning Division.</p> <p>Email: atreadwell@polk-county.net amortimer@polk-county.net</p>
<p>DRAFT FOR DISCUSSION PURPOSES</p> <p>DRAFT COMPREHENSIVE PLAN POLICIES</p> <p>TRANSIT SUPPORTIVE DEVELOPMENT AREA</p> <p>The attached draft policies are based on the concepts discussed at Urban Form Focus Group Meetings. The proposed text is intended to be part of the Future Land Use Element under the Plan's Framework and Development Areas (Section 2.103). All new text is in redaction format.</p> <p>Please submit any comments, suggestions or questions to Albert "Tref" Treadwell or Ann Mortimer-Mitchell in the Long Range Planning Division.</p> <p>Email: atreadwell@polk-county.net amortimer@polk-county.net</p> <p>Address: Post Office Box 9005, Dorew 7505 Bartow, Florida 33831</p> <p>Phone: (883) 534-6466 Fax: (883) 534-6471</p>	<p>DRAFT FOR DISCUSSION PURPOSES</p> <p>DRAFT COMPREHENSIVE PLAN POLICIES</p> <p>TRANSIT CORRIDORS AND CENTERS OVERLAY</p> <p>The attached draft policies are based on the concepts discussed at Urban Form Focus Group Meetings. The proposed text is intended to be part of the Future Land Use Element under the Plan's Framework and Development Areas (Section 2.103) to address Transit Corridors and Centers Overlay replacement new language.</p> <p>Please submit any comments, suggestions or questions to Albert "Tref" Treadwell or Ann Mortimer-Mitchell in the Long Range Planning Division.</p> <p>Email: atreadwell@polk-county.net amortimer@polk-county.net</p> <p>Box 9005, Dorew 7505 Bartow 33831</p> <p>Phone: (883) 534-6466 Fax: (883) 534-6471</p>

Urban Form Focus Group – 2009 Meeting Schedule



April 28

- Healthy Communities Initiative



May 26

- Green Building Practices



June 23

- Walkable Neighborhoods
- Multi-Use Trails & Lake Access
- Connectivity



July 28

- Conservation Subdivisions
- Rural Development Policies



August 25

- Urban Service Area(s)



September 22

- Core Transit Corridors
- Transit Hubs
- Multi-Modal Level of Service Standards



October 27

- Housing Opportunities
- Mixed Land Uses
- Civic Centers



November 18

- Residential Densities - Maximum and Minimum

All meetings will be held between 8 am – 10:00 am in the Polk County Administration Building. Dates are subject to change.

Each meeting will be broadcast live online as a Webinar (participants can post questions) at www.TheLedger.com



Special Thanks to the
Urban Form Focus Group

Webinar Hosted by:



OPENING REMARKS



Mike McDaniel, Florida DCA

Implementation of HB697



Mike McDaniel, Chief
Office of Comprehensive Planning

November 6, 2009

General Characteristics of Good Policies

- Specific Standards and Programs
- Comprehensive: Plan elements mutually supportive.
- Regional: Local programs reinforce regional initiatives.

“Effective actions to address Greenhouse Gas Emissions should include a mix of education, incentives, subsidies, and regulation.” (Policy Guide on Planning and Climate Change, APA, 2008)

163.3177(6)(a), F.S., Future Land Use Element

- The Future Land Use Element shall be based on the discouragement of urban sprawl, energy efficient land use patterns, and greenhouse gas reduction strategies.

163.3177(6)(a), F. S., Future Land Use Element

■ Common Approaches:

- Mixed Use Land Use Categories and Patterns
- Minimum Densities and Intensities
- Creation of Walkable Neighborhoods
- Integrated Land Use Patterns Linking Residential and Non-residential
- Transit-oriented Development
- Infill and Re-development
- Urban Service Area

163.3177(6)(a), F. S., Future Land Use Element

■ Examples:

□ **City of Jacksonville FLUE Policy 6.3.1:** The City shall identify major arterial corridors appropriate for “Infill and Redevelopment Master Plans”. These plans will:

- Incentivize redevelopment within a ½ mile walking distance of planned Rapid Transit System or Commuter Rail facilities;
- Identify areas where JTA should focus investment in transit stations and related facilities to act as a catalyst for redevelopment along identified corridors; and
- Identify opportunities for density bonuses, affordable housing, and credits for transit or other alternative forms of transportation to address concurrency requirements.

163.3177(6)(a), F. S., Future Land Use Element

- **Miami-Dade County FLUE Policy LU-1A:** High intensity, well designed urban centers shall be facilitated by Miami-Dade County at locations having high countywide multimodal accessibility.
- **City of Coral Gables Mobility Policy 1.1.1:** Promote mixed use development to provide housing and commercial services near employment centers, thereby reducing the need to drive.
- **Seminole County Policy FLU 1.16:** The County shall protect air quality by directing and incentivizing growth toward lands designated for Mixed Development or Higher Intensity Planned Development through incentives such as those identified in Policy 5.15.

163.3177(6)(b) and (j), F. S., Transportation Element

- The Transportation Element shall include ... greenhouse gas reduction strategies from the transportation sector. Also, the element shall ensure compatibility between this element and the FLUE.

163.3177(6)(b) and (j), F. S., Transportation Element

■ Common Approaches:

- Interconnectivity Between Land Uses
- Linking Neighborhoods to Activity Centers and Transit
- Complete Streets
- Integrated Multimodal Transportation Facilities
- Transit Supportive Development Standards
- Reduce Traffic Congestion
- Bicycle and Pedestrian Networks
- Multimodal Level of Service Standards

163.3177(6)(b) and (j), F. S., Transportation Element

■ Examples:

- **Sarasota City Transportation Element Policy 3.6, *Easement Dedication on Transit Corridors:***
Requests for development approval on sites located adjacent to streets that are designated “Transit Corridors,” identified in Illustration T-16, shall be required, at minimum, to construct a concrete pad and dedicate an easement to Sarasota County Area Transit (SCAT) (or its successor agency) for public transit use.

163.3177(6)(b) and (j), F. S., Transportation Element

- **City of Weston Transportation Element Policy 8.1.2.16.:** Improve the bikeway network such that all significant commercial, employment and recreational centers are accessible via a bikeway route along at least one collector or arterial roadway route serving the center.
- **Seminole County Transportation Element Policy 2.2.17.1 (Encourage Travel Between Neighborhoods):** The County shall ensure that existing and new developments are connected by roadways, bikeways, and pedestrian systems that encourage travel between neighborhoods and access to transit without requiring use of the major thoroughfare system.

163.3177(6)(d), F. S., Conservation Element

- The Conservation Element shall include provisions for the conservation, use and protection of natural resources in the area, including factors that affect energy conservation. Also, the land use map or map series shall depict energy conservation.

163.3177(6)(d), F. S., Conservation Element

■ Common Approaches:

- Conservation Program for Environmentally Sensitive Areas and Agriculture Lands
- Tree Canopy Preservation and Coverage Goals
- Citizen Education
- Promote Water-Wise Landscaping, Water Conservation & Energy Efficient Appliances
- Energy Conservation Areas & Features Map
 - Transit (stops, routes, hubs)
 - Conservation Areas (national parks, state forests, easements)
 - Agriculture Lands & Greenways
 - Bicycle Lanes & Sidewalks
 - Mixed-Use Activity Centers

163.3177(6)(d), F. S., Conservation Element

■ Examples:

□ **Coral Gables Natural Resources Element Policy**

1.2.10: The City will require the use of High Efficiency Toilets; High Efficiency Showerheads; High Efficiency Faucets; High Efficiency Clothes Washers; and Dishwashers that are Energy Star rated and WaterSense certified in all new and redeveloped residential projects.

□ **City of Tampa Sustainable Environment Policy**

38.5.1: Require the use of at least 60% native plants in new developments and redevelopments.

163.3177(6)(d), F. S., Conservation Element

- Pinellas County Housing Element Policy 1.13.3.:**
By 2010, determine a threshold and criteria for requiring LEED standards/certification in development and redevelopment projects, and implement through update to the land development code. In addition, consider pilot incentive programs to encourage green building and development.

163.3177(6)(d), F. S., Conservation Element

City of Jacksonville

Energy Conservation*

JTA Park and Ride

Type

- Transit Hub
- Skyway
- Trolley
- Bus
- Automated Skyway Express (ASE)
- Trolley
- 2008 Bus Routes
- Riverwalk
- Baldwin Rail Trail
- S-Line Rail Trail
- Bike Lanes, Hashed
- Bike Lanes, SOLID
- Roads - Oct 27, 2008

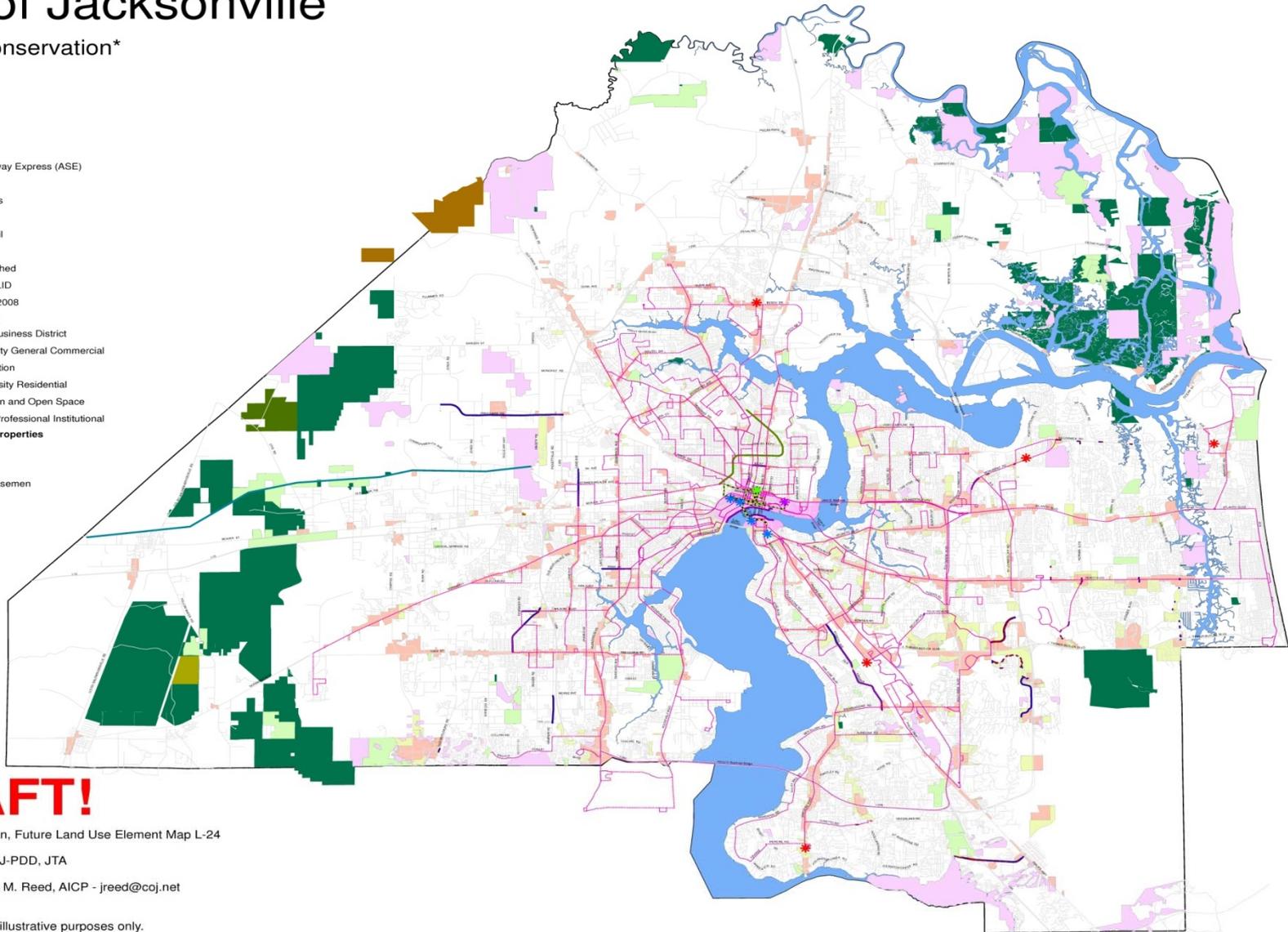
Associated Land Uses

- CBD - Central Business District
- CGC - Community General Commercial
- CSV - Conservation
- HDR - High Density Residential
- ROS - Recreation and Open Space
- RPI - Regional Professional Institutional

Preservation Project Properties

STATUS

- Acquired
- Conservation Easements
- Mitigation
- Under Contract
- River
- Duval County



DRAFT!

* Comprehensive Plan, Future Land Use Element Map L-24

Data provided by COJ-PDD, JTA

Developed by James M. Reed, AICP - jreed@coj.net
January 2009

Content intended for illustrative purposes only.

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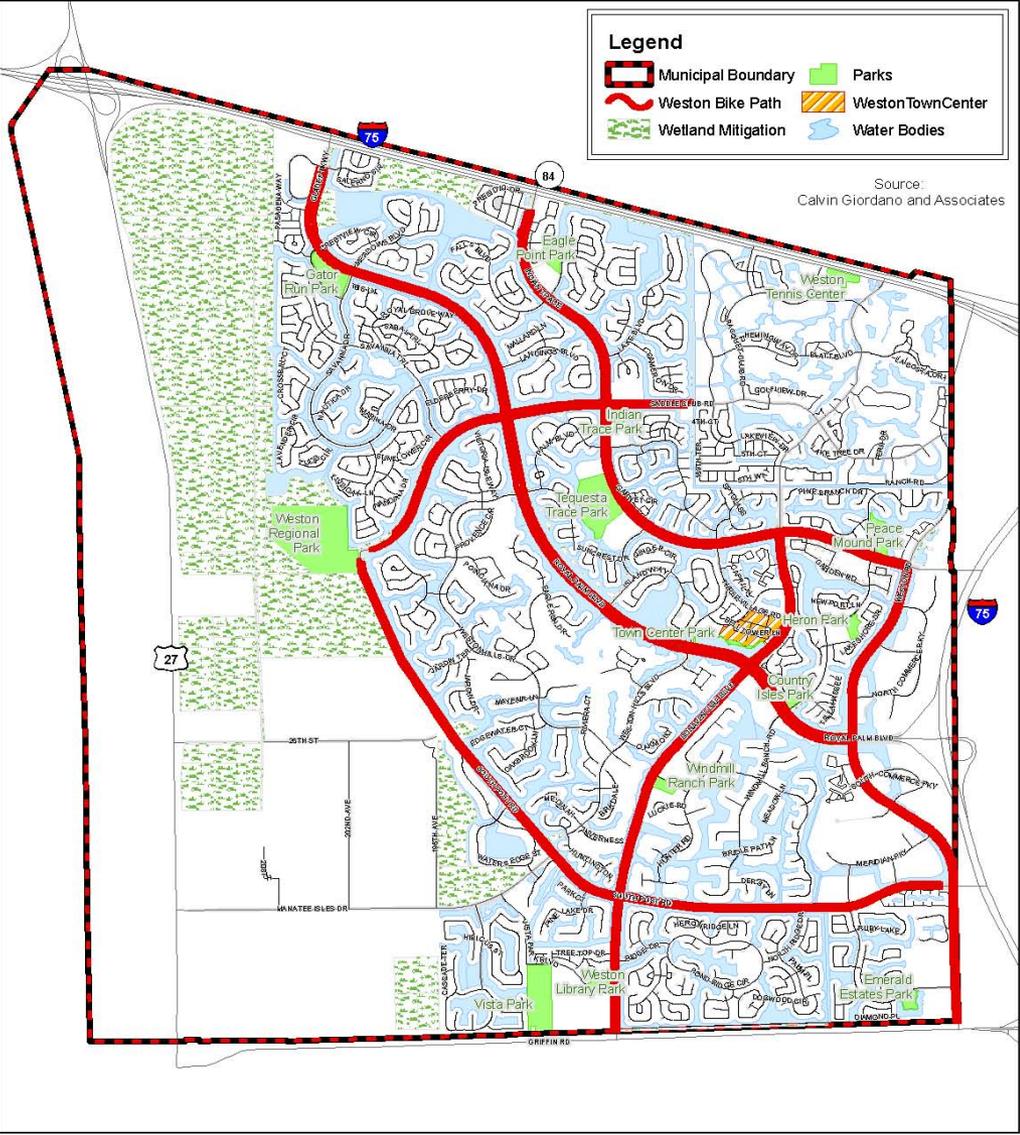
City of Weston
Energy Conservation Areas and Features



Legend

- Municipal Boundary
- Weston Bike Path
- Wetland Mitigation
- Parks
- Weston Town Center
- Water Bodies

Source:
Calvin Giordano and Associates



163.3177(6)(d), F. S., Conservation Element



163.3177(6)(f), F. S., Housing Element

- A Housing Element consisting of standards, plans, and principals to be followed in:
 - Energy efficiency design and construction of new housing
 - Use of renewable energy resources.

163.3177(6)(h), F. S., Housing Element

■ Common Approaches:

- Green Building Construction Standards (LEED, FGBC)
 - New Government Facilities
 - Incentives for Private Construction
- Weatherization Programs
- Energy Star Standards
- Encourage Use of Renewable Energy Resources in All New Construction (i.e. Optimal Solar Orientation, Access to Breezes, Natural Lighting)
- Promote Solar Energy
- Energy Audit Programs

163.3177(6)(h), F. S., Housing Element

■ Examples:

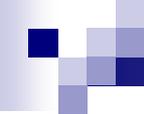
- **City of Weston Housing Element Policy 2.8.3:** The City shall not prohibit the appropriate placement of photovoltaic panels. The City shall develop and adopt review criteria to establish the standards for the appropriate placement of photovoltaic panels.
- **City of Waldo Conservation Element Policy V.4.6:** The City shall work with area electric utility providers to provide low cost energy audits to consumers.

163.3177(6)(h), F. S., Housing Element

- **City of Waldo Housing Element Policy III.2.3:** The City shall require optimal energy performance by meeting or exceeding the performance of an Energy Star labeled home.
- **City of Jacksonville Housing Element Policy 1.12.6:** The City of Jacksonville shall encourage the use of renewable energy resources in all new construction. When feasible, orient the structure to optimize solar orientation and access prevailing breezes, minimize east-west facing windows, maximize natural lighting, and install clothes lines.

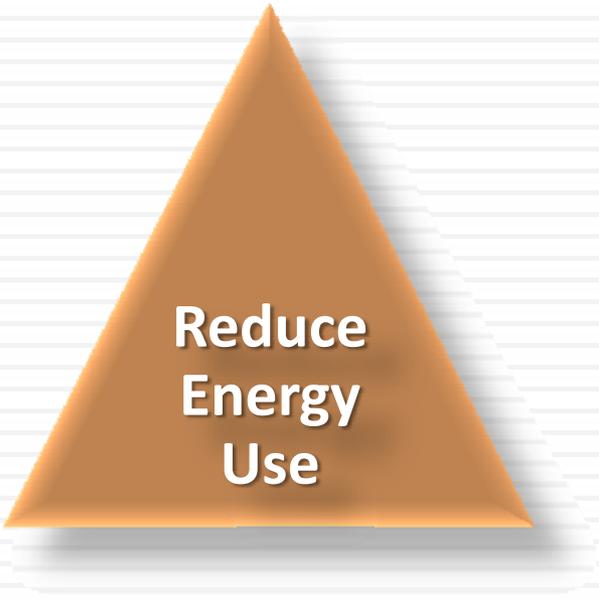
For More Information

- Florida Department of Community Affairs Website HB 697 Resources:
<http://www.dca.state.fl.us/fdcp/DCP/Legislation/2008/HB697Resources.cfm>
- Alachua County Energy Conservation Strategies Commission Final Report: <http://energy.alachuacounty.us>
- Coral Gables: EAR-Based Amendments-
http://www.citybeautiful.net/CGWeb/dep_plan_EARamendments.htm.
- State of California: *Model Policies for GHGs in General Plans*, Chapter 6- <http://www.capcoa.org/>.
- Florida Department of Community Affairs, Jeannette Hallock-Solomon, Planning Analyst- Phone: 850-922-1809 or Email: jeannette.hallock-solomon@dca.state.fl.us.



Thank You

SUSTAINABLE POLK

An orange triangle with a white drop shadow, positioned centrally below the title.

Reduce
Energy
Use

TRANSIT SUPPORTIVE DEVELOPMENT



Tom Deardorff, Polk County

Transit Supportive Development

- Polk County Growth Management is proposing land use policies based on the principles of “Transit Supportive Development” to support the community’s existing and planned investment in transit.
 - ▣ Transit Supportive Development Area
 - ▣ Transit Corridors and Centers Overlay

Transit Supportive Development

Transit supportive planning and development rethinks land use and development patterns so they will be effectively served by a balanced transportation system where walking, bicycling, and riding transit work in harmony with the private automobile. Transit supportive development enables citizens to choose an alternative to the automobile for at least one or more of their daily trips between home, work, shopping, school or services. This is accomplished primarily by simply designing communities so that walking, cycling, riding transit, and driving a car can work together to create a balanced transportation system.

Principles of Transit Supportive Development
Mid-America Regional Council

Transit Supportive Development



Compact, Mixed-Use Development



Improved Travel Connections



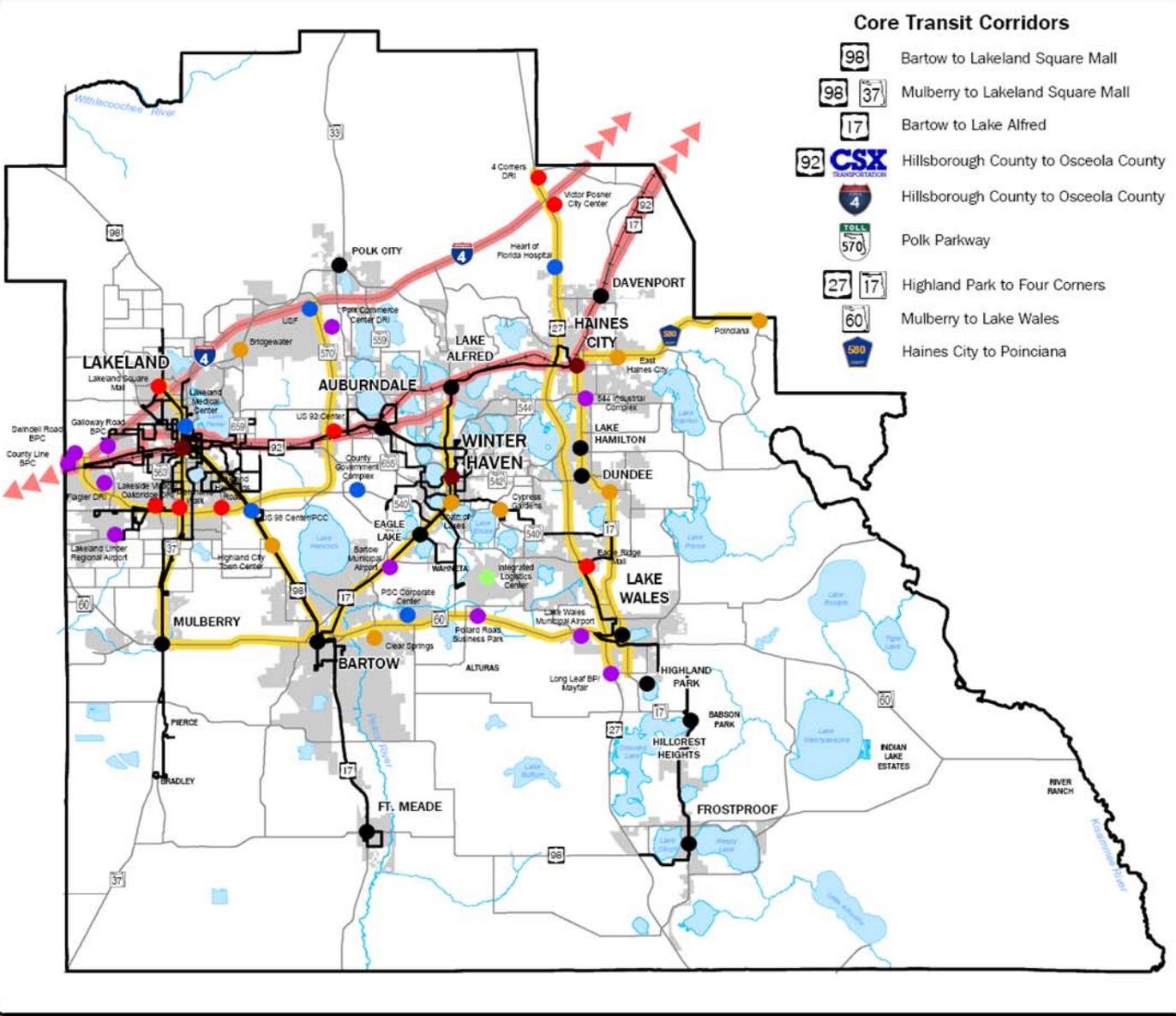
Pedestrian-Friendly Environment



Reduced or Shared Parking



Public Spaces



Core Transit Corridors

- Bartow to Lakeland Square Mall
- Mulberry to Lakeland Square Mall
- Bartow to Lake Alfred
- Hillsborough County to Osceola County
- Hillsborough County to Osceola County
- Polk Parkway
- Highland Park to Four Corners
- Mulberry to Lake Wales
- Haines City to Poinciana

Transit Corridors and Centers

Legend

Center Types

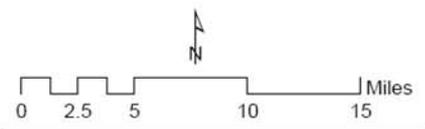
- Urban Center
- Historic Town Center
- Community Mixed-Use
- Professional
- Business Commercial
- Commercial
- Integrated Logistics Center

Corridors with 1/4 Mile Buffer

- Core Transit Corridors
- Regional Core Transit Corridors

Other Map Features

- Existing Transit Routes
- Rail
- Municipalities
- Major Roads



2060 Transportation Vision Plan

ADOPTED by the Polk Transportation Planning Organization (TPO) on June 18th, 2009.

Existing + Planned Transit Services

Transit Supportive Development Area

Proposed Policy

POLICY 2.104-A1: DESCRIPTION -- Urban Development Areas Transit Supportive Development Area (TSDA) shall meet the following criteria:

- a. include those areas where the availability of infrastructure and community services, including, but not limited to mass transit and other transportation alternatives, utilities, public safety, recreational and educational services, promotes and supports the location of higher density and intensity compact, mixed use development;
- b. be supported by existing or planned urban type services that are programmed for the 10-year planning horizon;
- c. be designated as part of a coordinated land use and transportation strategy that supports the provision of improved and expanded transit services, as identified in the TPO 2060 Transportation Vision Plan in order to increase mobility and travel options;
- c. include development criteria that:
 - 1) promote the development of walkable communities which include a balance between employment opportunities, mix of complementary uses and activities, and a range of housing opportunities;
 - 2) improve access to employment areas, schools, shopping and recreational opportunities;
 - 3) support the preservation of open space and natural areas;
 - 4) reduce capital and operating cost for the provision of infrastructure and public services.



DEVELOPMENT AREAS

with Utility Service Areas

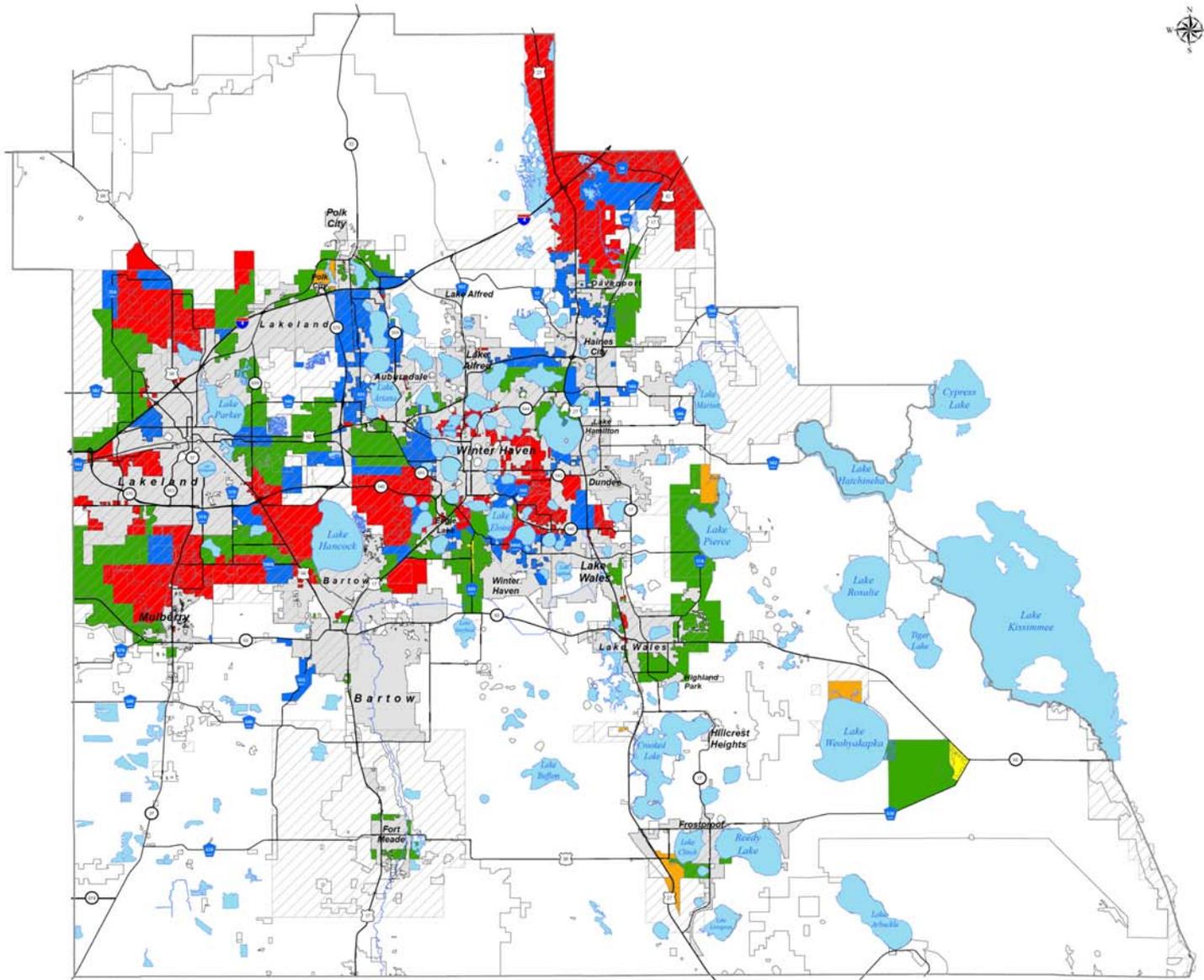


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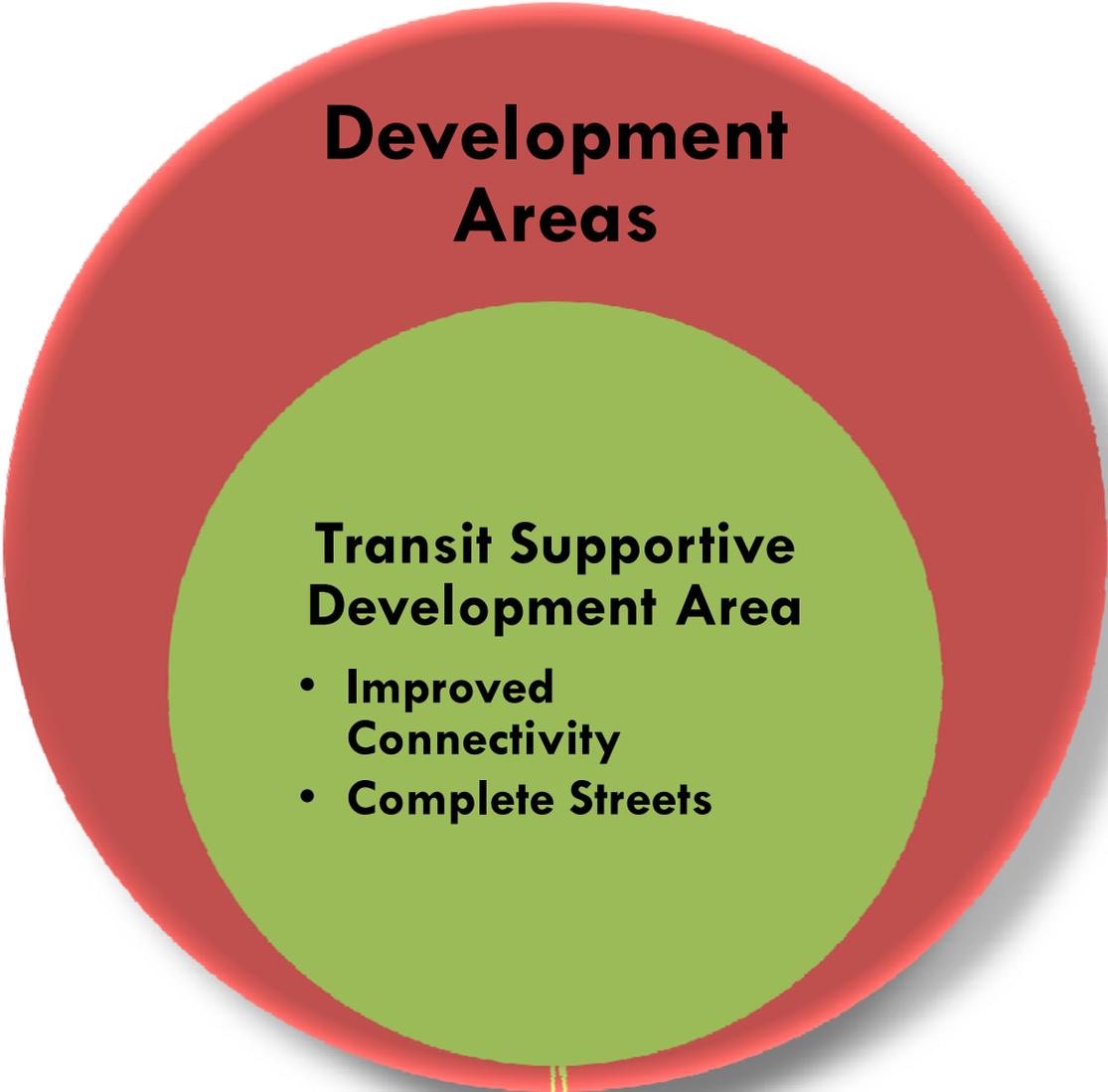
- County Roads
- Interstates
- State Roads
- US Roads
- County Boundary
- Water Bodies
- Utility Service Areas
- Municipalities
- UDA - Urban Development Area
- UEA - Utility Enclave Area
- NUA - Neighborhood Utility Area
- UGA - Urban Growth Area
- SDA - Suburban Development Area
- RDA - Rural Development Area



Prepared by:
Polk County
Board of County Commissioners
Long Range Planning Division
01/17/2007



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Development Areas

Transit Supportive Development Area

- **Improved
Connectivity**
- **Complete Streets**

Transit Supportive Development Area

Complete Streets

- Roadway that accommodates all travelers, particularly public transit users, bicyclists, pedestrians, and motorists, to enable all travelers to use the roadway safely and efficiently



Transit Supportive Development Area

Improve
Connectivity

- “promote the development of walkable communities ...”
- “improve access to employment areas, schools, shopping and recreational opportunities ...”



Transit Corridors and Centers Overlay

Proposed Policy

POLICY 2.124-I1: PURPOSE – Core Transit Corridors and Centers, as identified in the Transportation Planning Organization’s (TPO) 2060 Transportation Vision Plan, provide the basis for the Transit Corridor and Centers Overlay. The overlay will provide a framework for land use policies and mobility strategies that:

- a. Promote compact, mixed-use development;
- b. Improve travel connections and access between land uses;
- c. Provide a pedestrian-scale built environment and encourage pedestrian activity;
- d. Promote the provision of public spaces and improved access to public spaces;
- e. Implement reduced or flexible parking standards;
- f. Increase travel options as part of a multi-modal transportation system;
- g. Reduce reliance on single-occupant vehicles (SOV) and vehicle miles traveled; and
- h. Reduce energy consumption and greenhouse gas emissions.



**Development
Areas**

**Transit
Supportive**

**Transit Corridors
and Centers
Overlay**

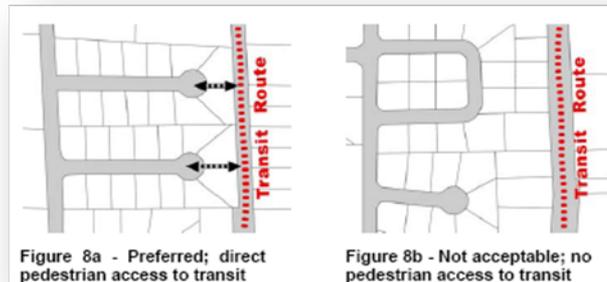
- **Design**
- **Mobility
Strategies**

Transit Corridors and Centers Overlay

Design

POLICY 2.124-I3: DESIGN PRINCIPLES – Polk County shall implement site design principles in the form of development incentives and standards. These design principles shall address:

- a. Convenient, direct and safe pedestrian connections to building entrances, existing and planned transit stops, parking facilities, mixed land uses and public spaces;
- b. Pedestrian-scale blocks and interconnected street networks to promote pedestrian mobility;
- c. Architecture and streetscape features, such as awnings, articulated facades, pedestrian lighting, sidewalk furniture, street trees and streetfront display windows to create a human-scale or pedestrian-focused environment;
- d. Orientation of buildings and entrances towards streets or public spaces to encourage and support pedestrian activity;
- e. Discouragement of auto-dependent uses in close proximity to transit hubs;
- f. Provision of complete streets to increase mobility for transportation system users;
- g. Provision of parks, plazas and greenways to create community gathering places;
- h. Provision of bicycle parking;
- i. Incorporation of transit facilities and amenities into site design, e.g., shelters, benches, and lighting;
- j. Provision of structured parking as part of mixed land uses; and
- k. Reduced or shared parking.



Source: VOTRAN



Transit Corridors and Centers Overlay

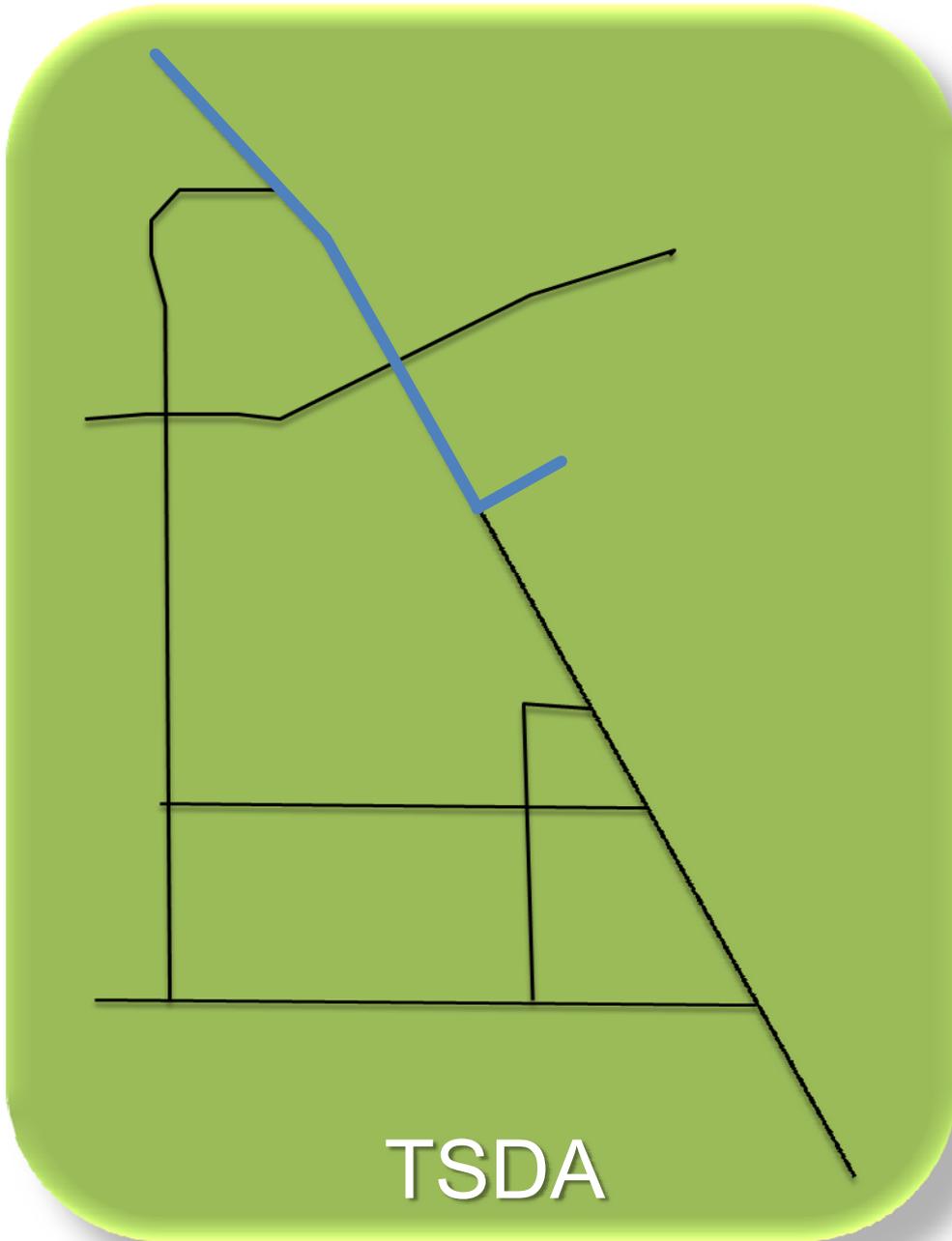
Mobility Strategies

POLICY 2.124-19: MOBILITY STRATEGIES – Polk County shall implement mobility strategies within the TCC Overlay to support non-motorized transportation and transit service development and to maximize access to existing and planned transit services. These strategies will be incorporated in the Multi-Modal Transportation Level of Service Standards and may include, but will not be limited to:

- a. Provision of an extensive pedestrian system;
- b. Elimination of gaps in sidewalk network;
- c. Complete street treatment including improved pedestrian and bicycle crossings;
- d. Provision of transit facilities and passenger amenities;
- e. Provision of bicycle parking; and
- f. Shared, reduced or maximum parking requirements.



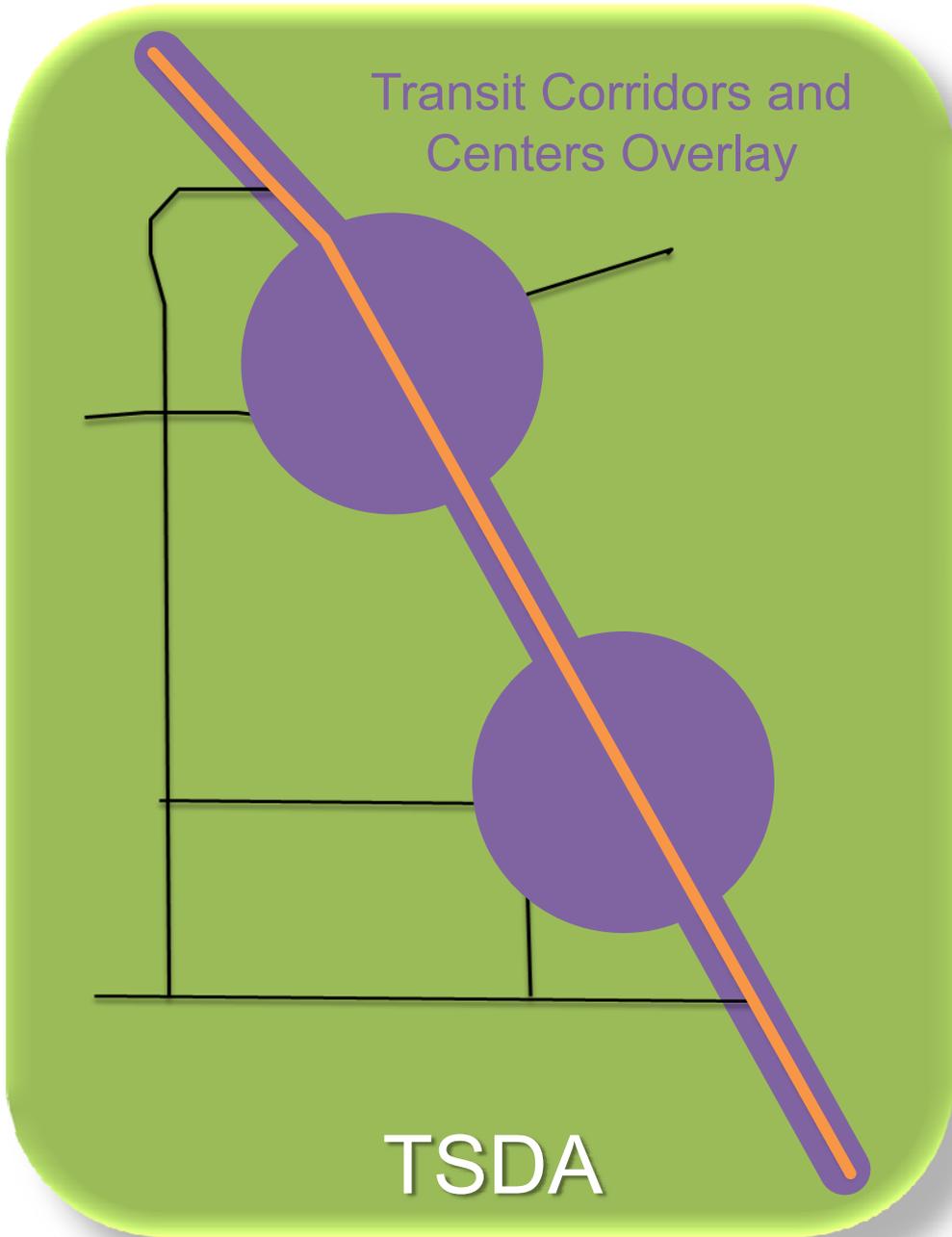
“Local” Route within Transit Supportive Development Area



Connectivity



Complete Streets



“Regional” Route within Transit Supportive Development Area



Design

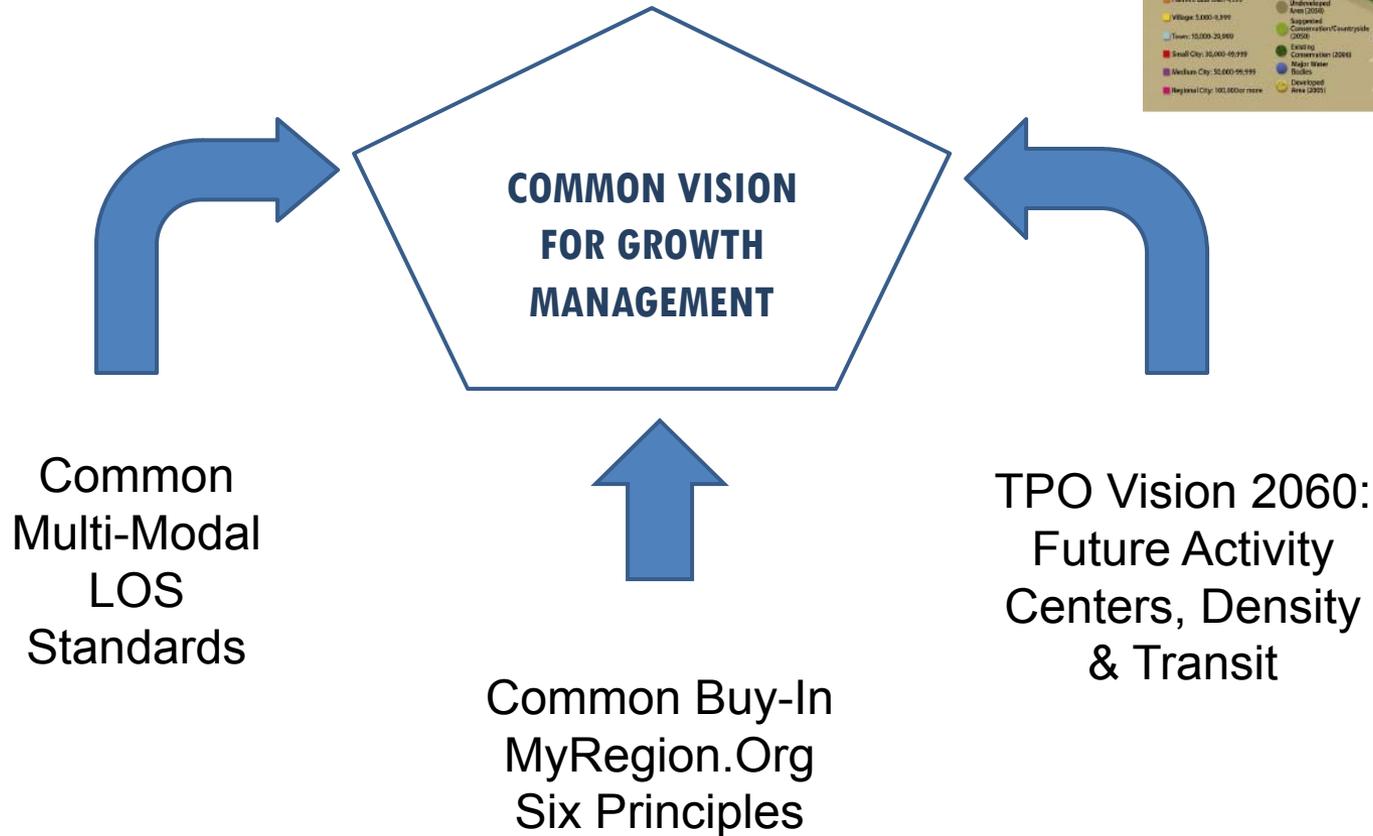
Mobility

MOBILITY STRATEGIES



Celeste Deardorff

A History of Cooperation



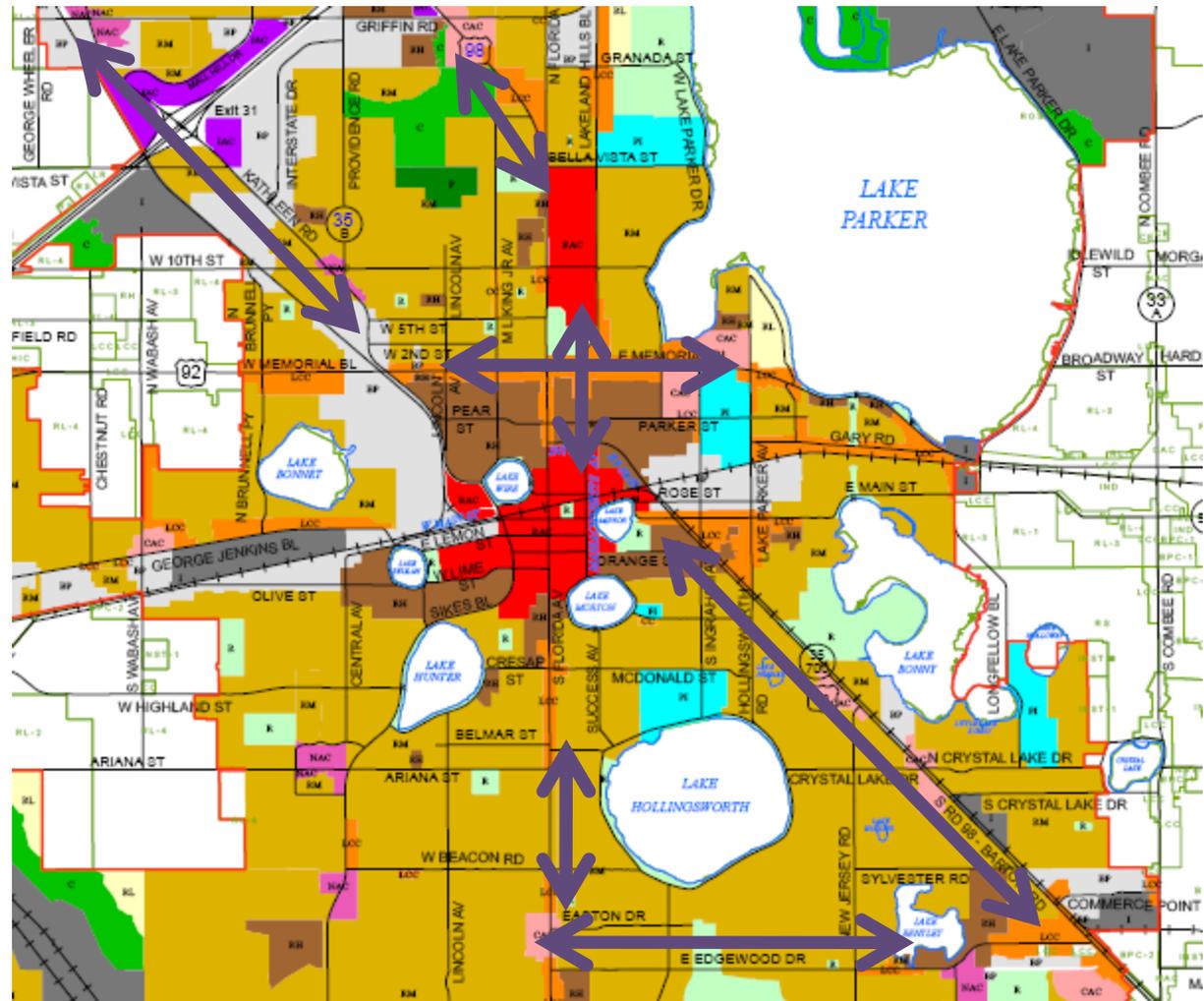
Growth Management Rules

- Mandates in HB 697 & SB 360:
 - ▣ Energy Efficiency/Greenhouse Gas (GHG) Reduction
 - ▣ DULAs/TCEAS: Multi-Modal Strategies by 2011
- Requires Focus on Mix of Uses (Proximity & Balance of Uses: Jobs, Housing, Shopping Etc.)
- Requires Multi-Modal / Alternatives
 - ▣ Reduce VMT and Car Emissions
 - ▣ Balance Investments in Transportation system

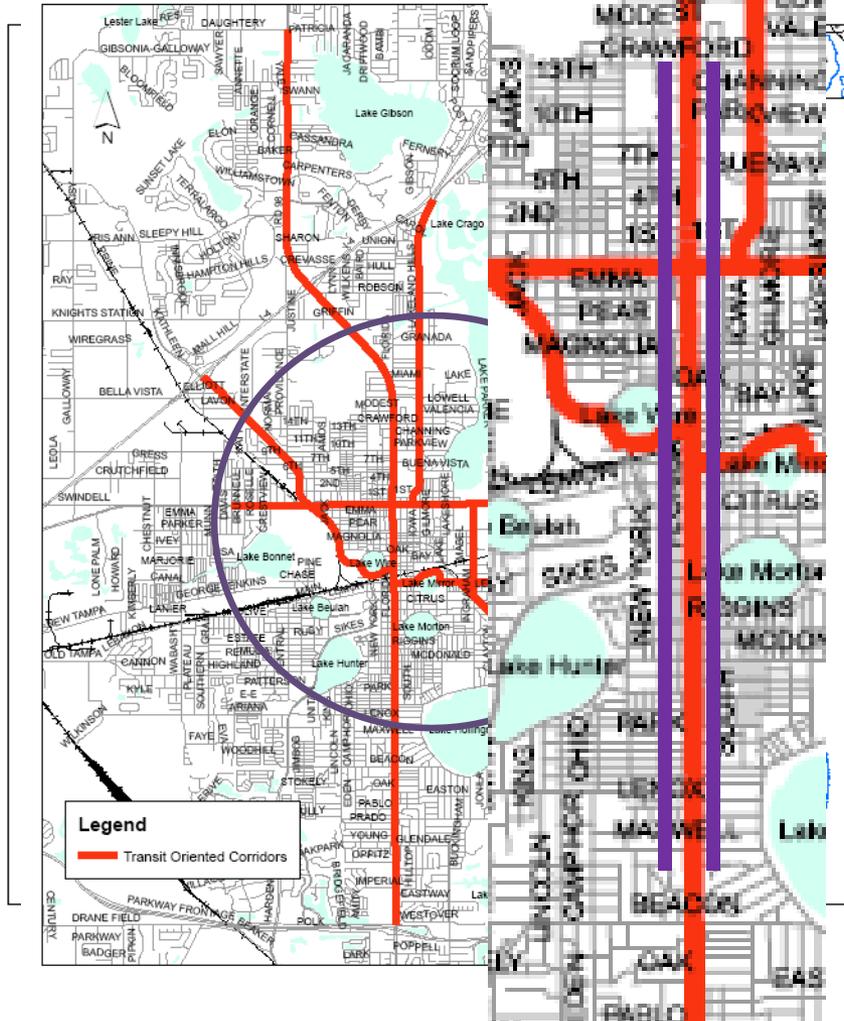


Connecting & Mixing Uses

- COL EAR: Density/Mixed Use & Multi-Modalism
- How Do We Make It Happen?



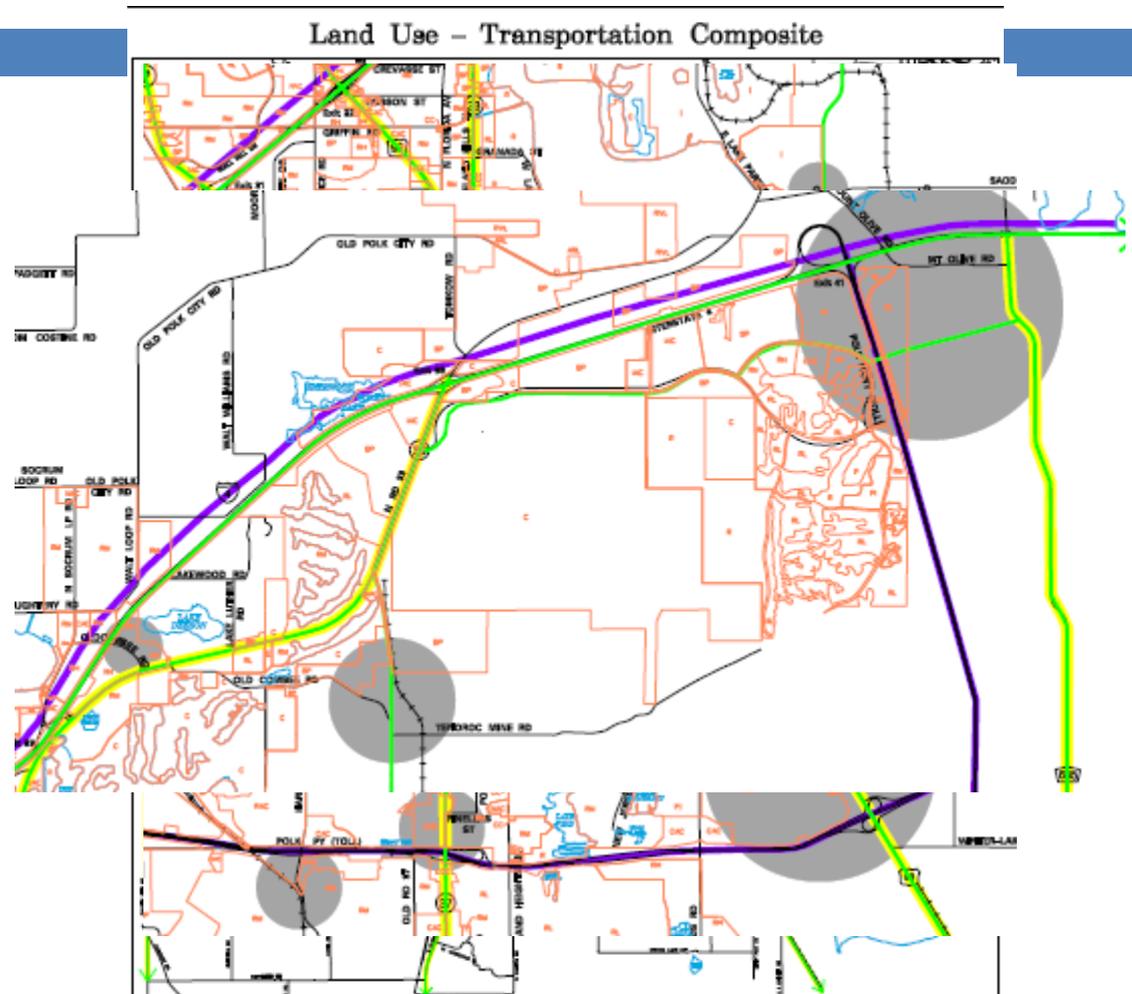
Challenges



Key Transit Corridors That Connect the City & Link Activity Centers

Where Are Key Transit Routes?

- Consider Existing Routes
- Consider Future Needs
- Transit Investment Planning (oriented toward same vision)

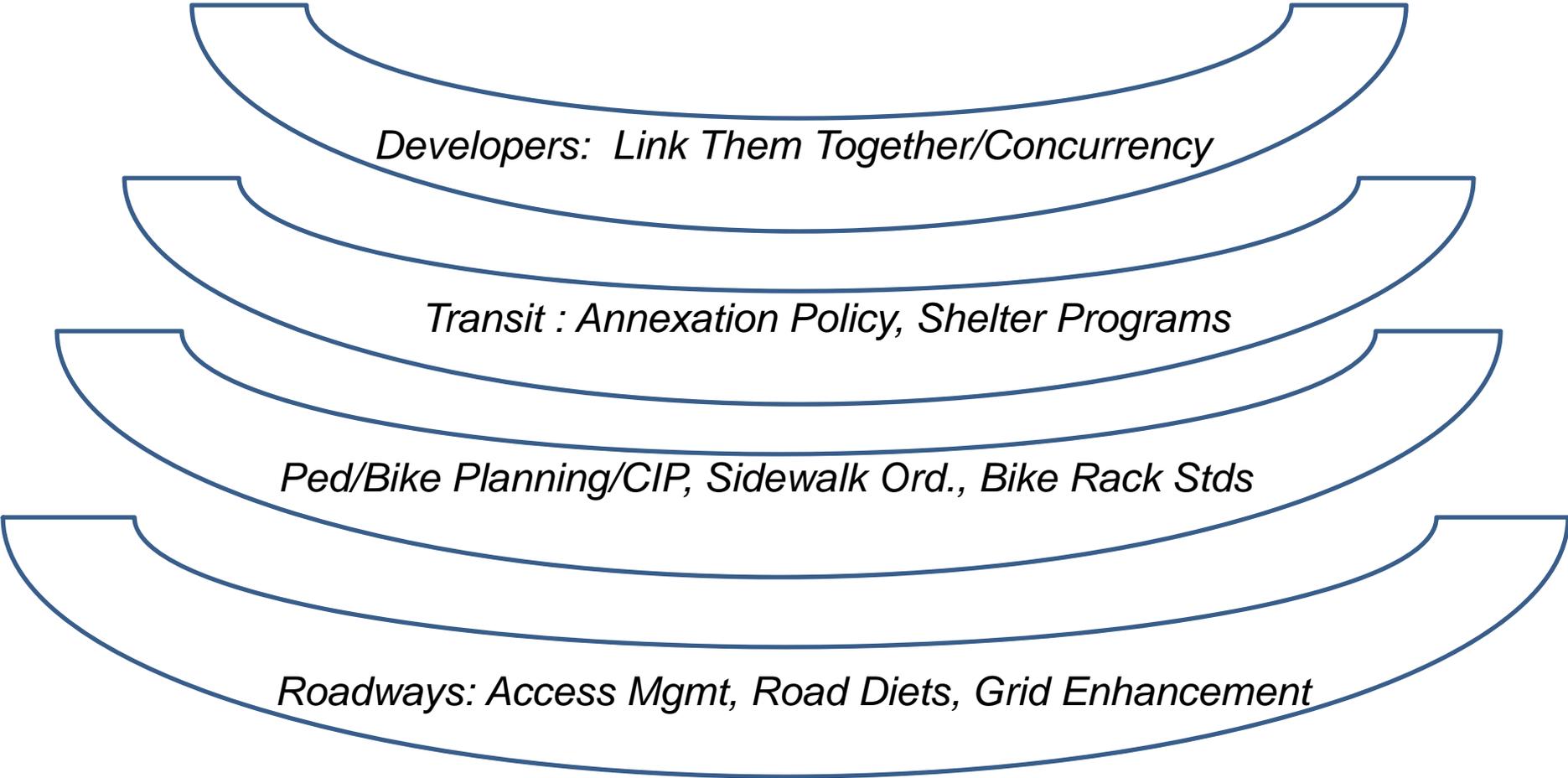


- Multi Modal Corridors
- Future Corridor Development and Redevelopment
- Future Center Development and Redevelopment

— Passenger Rail Potential



Multi-Modalism – Building A System



Developers: Link Them Together/Concurrency

Transit : Annexation Policy, Shelter Programs

Ped/Bike Planning/CIP, Sidewalk Ord., Bike Rack Stds

Roadways: Access Mgmt, Road Diets, Grid Enhancement

Examples: Multi-Modal Made Real



Southgate Transit Shelter



Bike Rack at McDonald's



MLK Road Diet, 2006



Watson Clinic Expansion

Examples: Multi-Modal Made Real

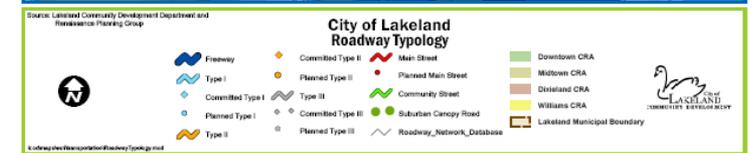
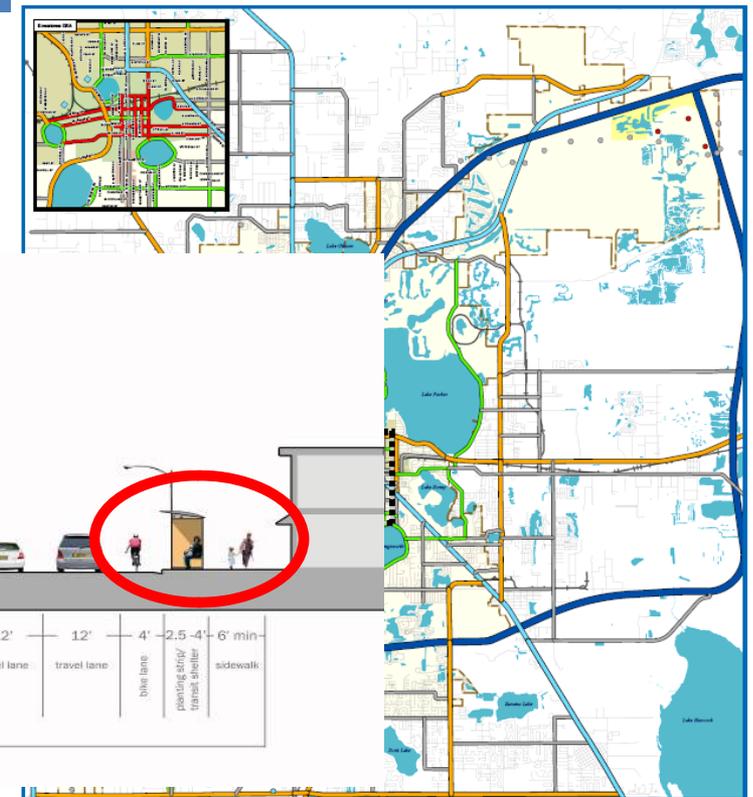
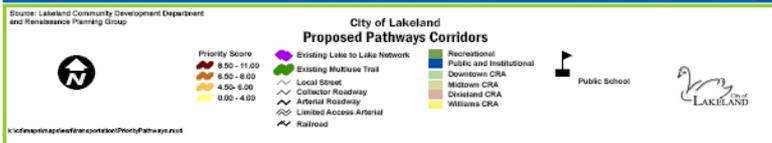
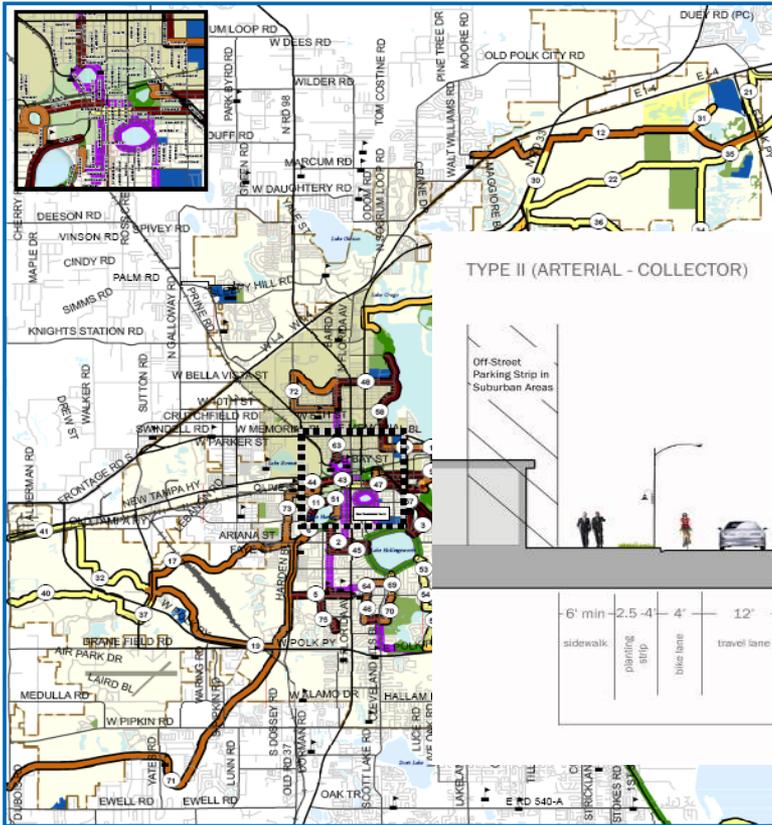


Harden Boulevard Sidewalks

Policy 4A.2: Concurrency related facility improvement costs shall be the responsibility of the developer but could include contribution of funding toward improvements actually made by transit authorities, local governments, FDOT or other official entities. Eligible transit or non-motorized mitigation strategies may include but are not limited to one or more of the following, on and/or off-site improvements:

- a) **Funding of bus shelters and/or bike racks**, including all installation costs;
- b) Set aside of land and dedicated easement, as needed, for future bus shelter and/or bike rack facilities;
- c) **Off-site sidewalk improvements** within the M2 or M3 Districts, or fee in lieu of as per the City's sidewalk ordinance;
- d) **Funding for enhanced transit services** within and/or to the M2 or M3 District;
- e) Depending on the level of congestion, additional strategies may be considered to alleviate project impacts including use of **staggered work hours for employees to promote off-peak travel**, establishment of employee car or van pools and/or incentive programs for employees to use transit.

Connectivity



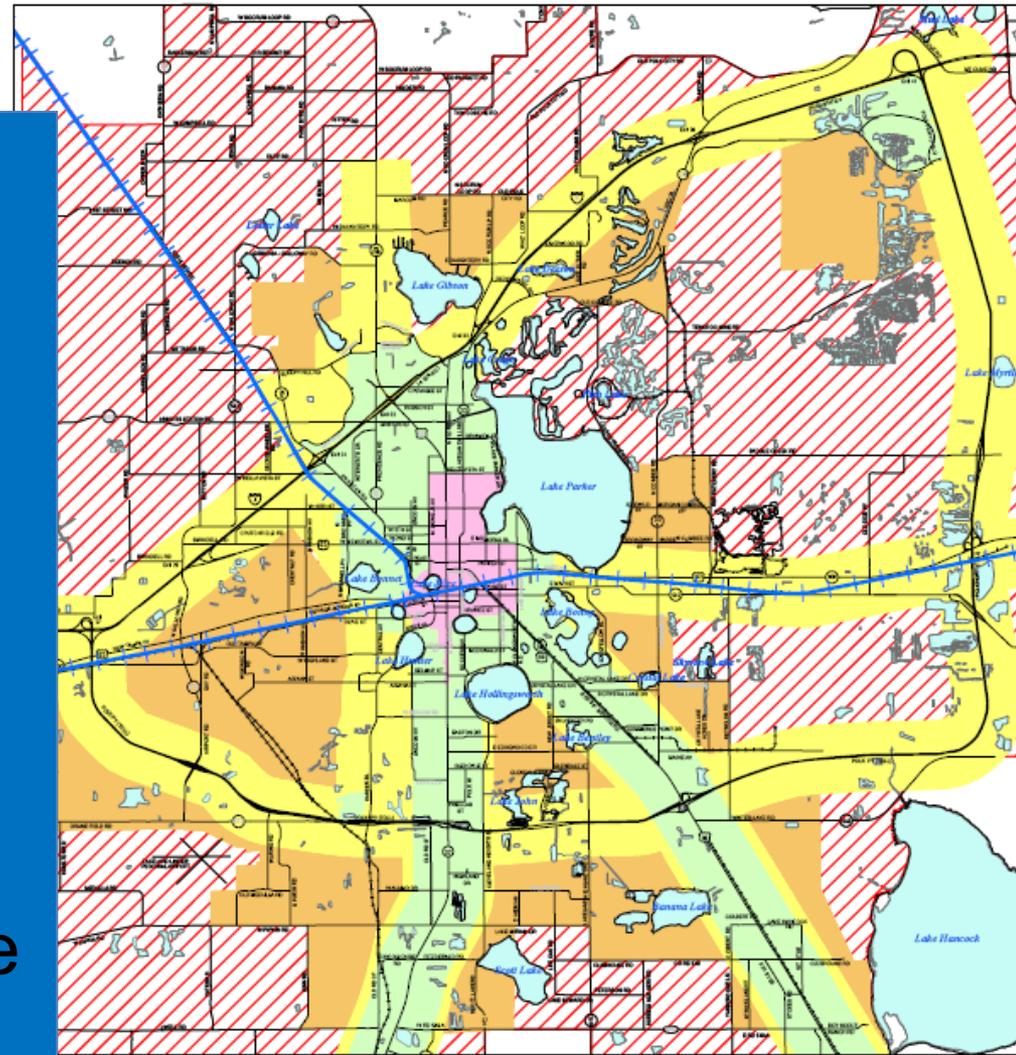
Roadway Typologies

Pathways Plan

TCEA

Inverse Relationship
Between Road LOS
Standard
&
Transit Frequencies &
Infilling of
Sidewalk Gaps
=
Shifting Public and Private
Capital Investments

Amendments to Multimodal Transportation Districts



© Lakeland Community Development Department, Sept. 2009



- CMAC
- M3
- M2
- M1
- EU
- Rail Corridors



Land Use & Transportation Connectivity



Goal: Compact, Walkable, Mixed Use Areas

- Keep building on our multi-modal network
- Use TCEA to help direct investment
- Expanded Accessory Dwelling Units—Densification
- Re-invent LCCs to a Mixed Commercial Use
- Minimum Residential Densities
- Increase Re-development Incentives
- Use Design/FBC To Ensure Compatibility



MULTI-MODAL TRANSPORTATION INVESTMENTS

Andy Palmer, City of Winter Haven



Winter Haven

Moving Into the Future

- Community Visioning Plan: Late 1990's – early 2000's
- Priorities:
 - ▣ Lakes Preservation
 - ▣ Parks and Recreation
 - ▣ Beautification
 - ▣ Alternative Transportation – WHAT System & COL Trail Corridor
 - ▣ Redevelopment & Economic Development
- Key to moving forward with implementing priorities:
 - ▣ Progress into the future while not forgetting our past
 - ▣ Everyone and every project must work together



Winter Haven Moving Ahead

Brief Growth Statistics

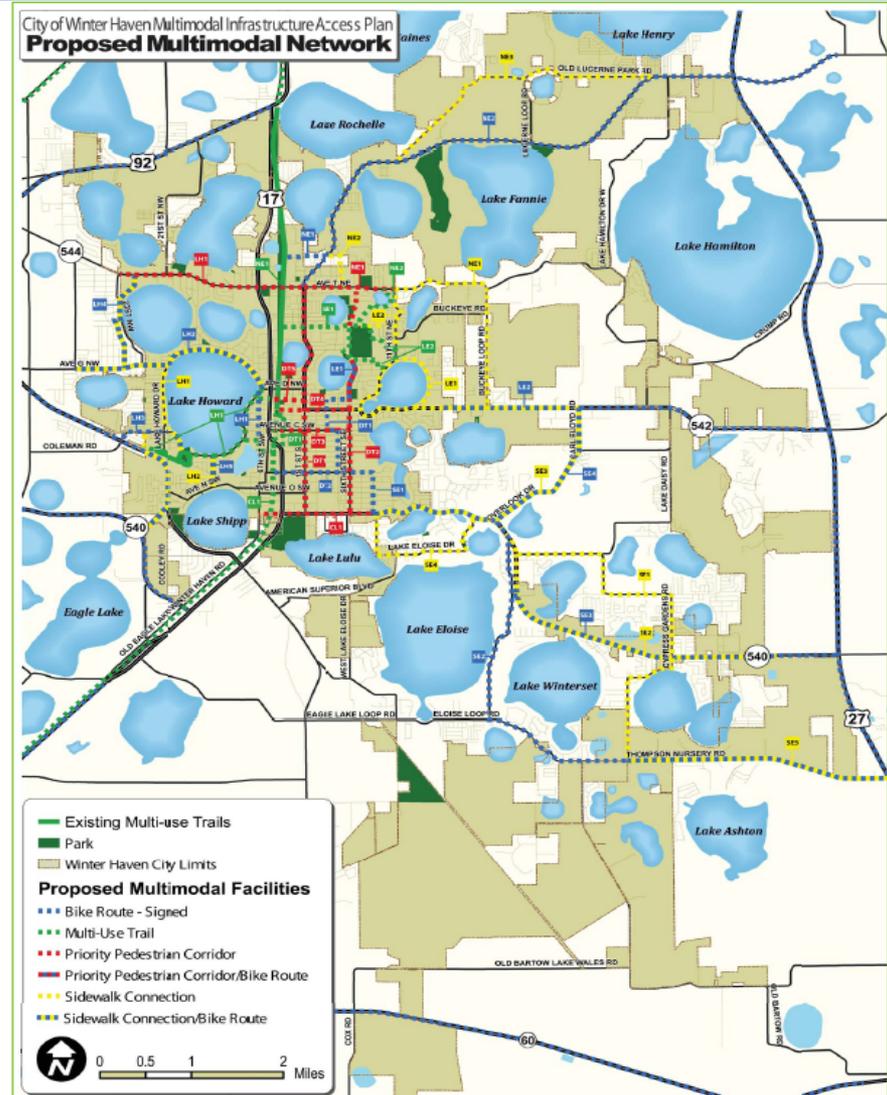
- 1998
 - ▣ Population – 25,867
 - ▣ Corporate Limits – 25 square miles
- 2009
 - ▣ Population – 34,464
 - ▣ Corporate Limits – 39.6 square miles
 - ▣ 4,484 additional housing units
 - ▣ 897,400 additional square feet of Commercial Space
 - ▣ 495,700 additional square feet of Industrial Space



Winter Haven: Where we need to go!

Multi-Modal Transportation Infrastructure Plan

- Background:
 - Global view & assessment of the City's network
 - Stakeholder & Citizen Input
- Priorities
 - Linking Destinations
 - Variety of transportation modes working together
 - Determine feasibility



Winter Haven: Where we started!

Chain of Lakes Trail & WHAT

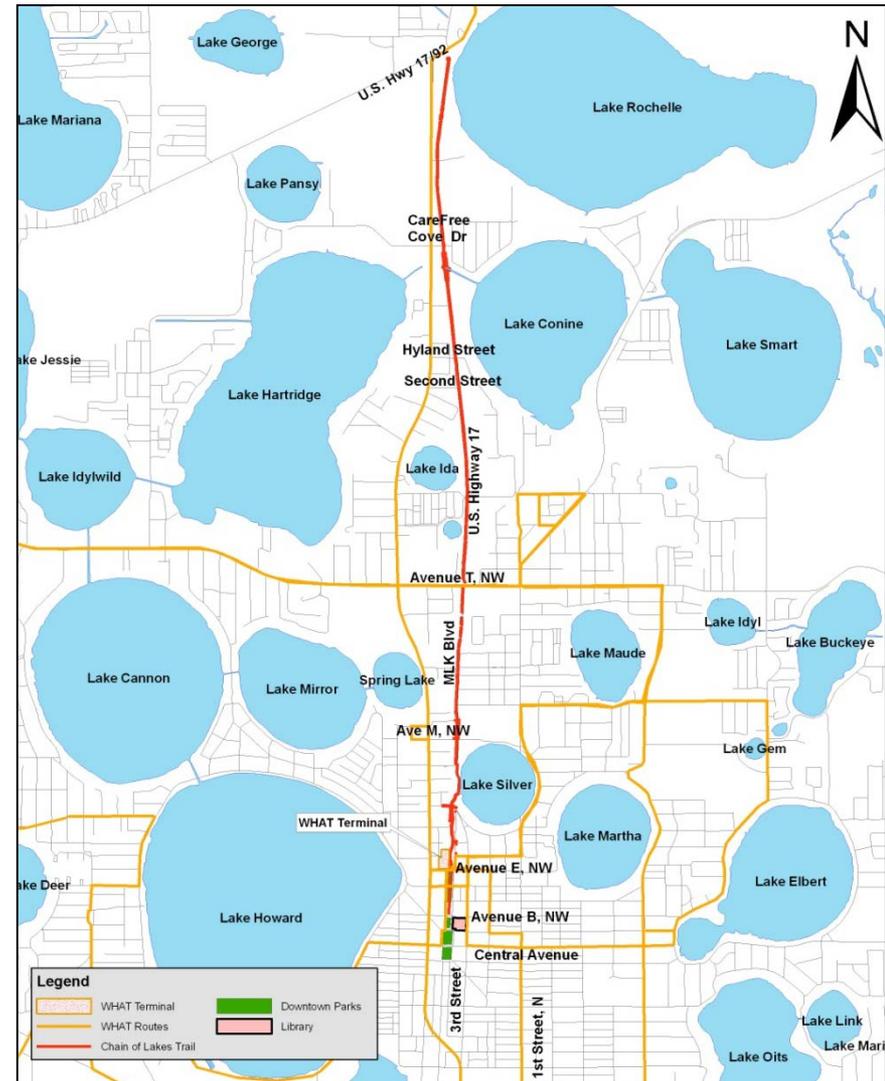
Chain of Lakes Trail

- Provides regional connections
- Serves as the spine of the City's Multi-Modal Network
- Sets the stage for future trail development



WHAT System & Terminal

- Provides centralized transit service to Winter Haven Area
- Proximity of the Terminal and COL Trail allow for complimentary uses

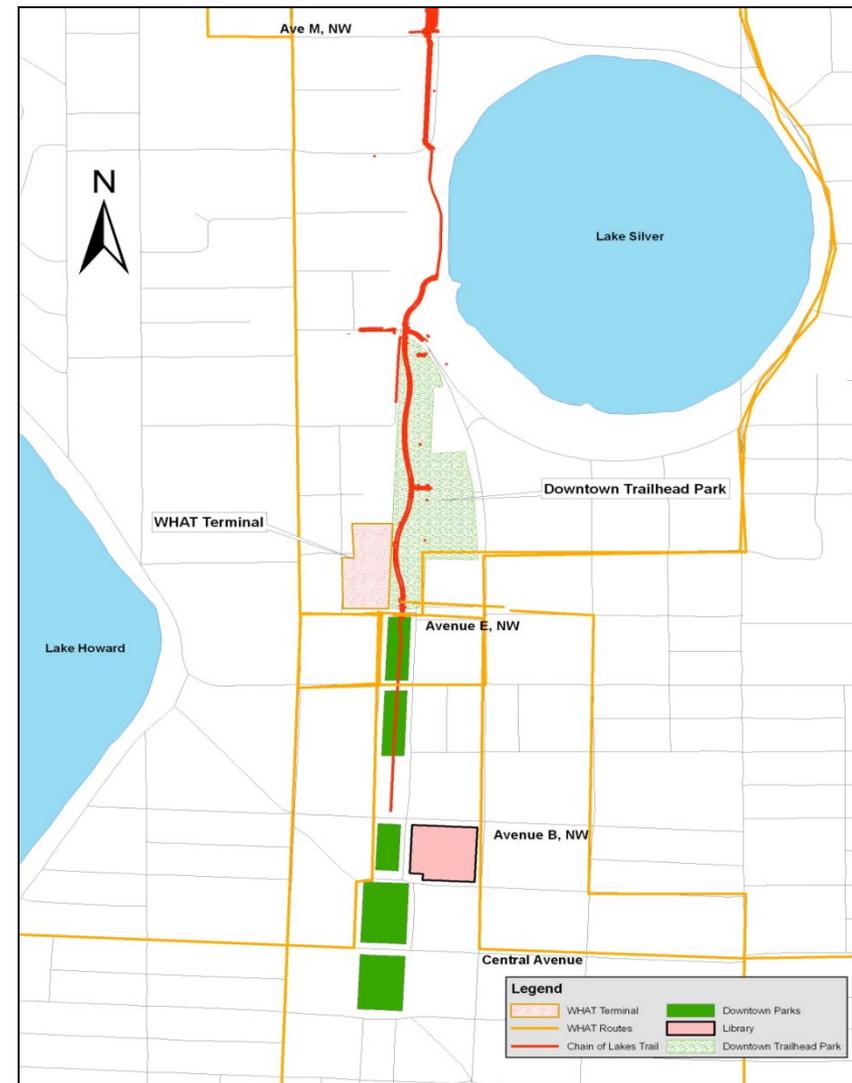


Winter Haven: What's going on right now!

Chain of Lakes Trail, WHAT & Downtown Trailhead Park

Chain of Lakes Downtown Trailhead Park

- Enhances Winter Haven's Multi-Modal System
- Provides a destination point within the Multi-Modal hub
- Provides a variety of ways to access & experience the Multi-Modal system



Winter Haven: What's going on right now!

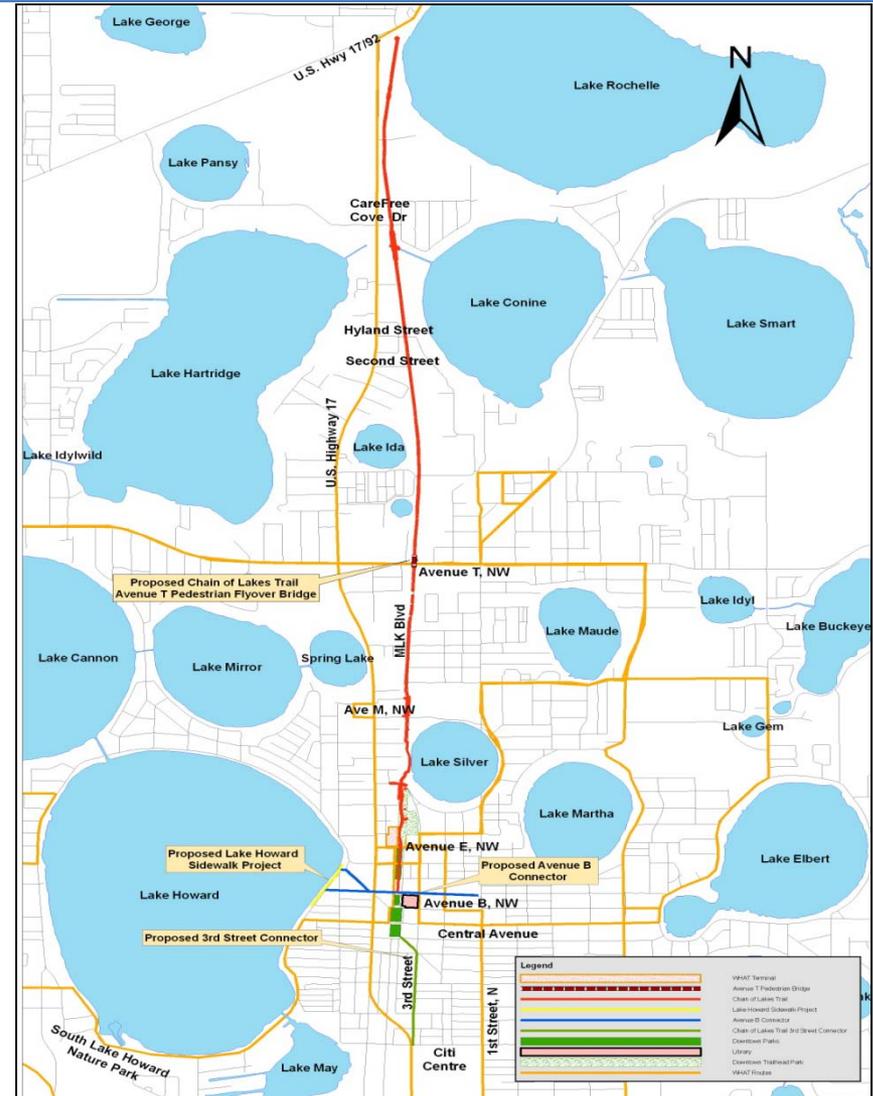
Chain of Lakes Trail Downtown Trailhead Park



Winter Haven: The Multi-Modal Pieces are falling into place!

New Multi-Modal Projects

- Lake Howard Sidewalk
- Avenue B Connector
- 3rd Street Connector Extension
- Chain of Lakes Trail Pedestrian Flyover Bridge



Winter Haven

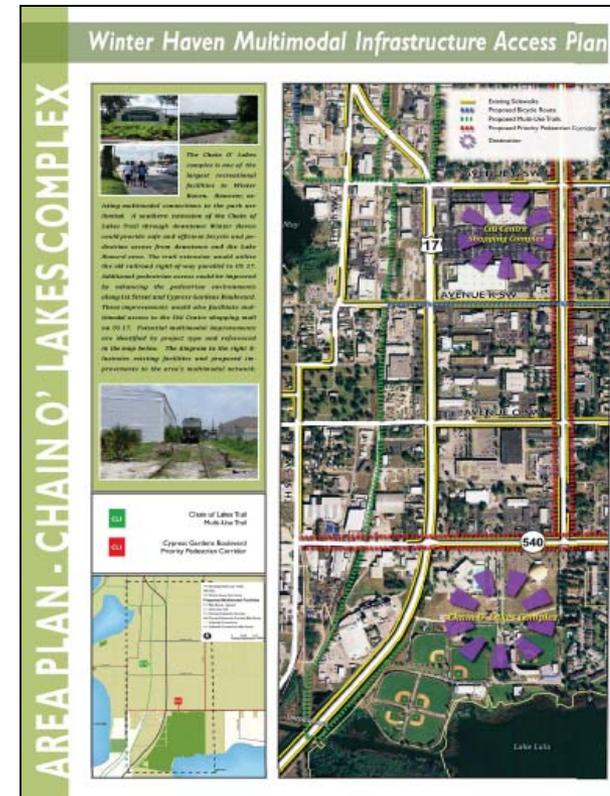
\$\$ Multi-Modal Investment \$\$

Multi-Modal Network Projects in Approximate \$

- ❑ **Chain of Lakes Trail (2007)**
 - ❑ Total Cost = \$2.5 Million
 - ❑ \$800,000 in grant funding
- ❑ **Chain of Lakes Downtown Trailhead Park (2010)**
 - ❑ Total Cost Estimates = \$1.7 Million
 - ❑ \$475,000 in grant funding
- ❑ **Lake Howard Sidewalk Project (2011)**
 - ❑ Total Cost Estimates = \$250,000
 - ❑ \$227,000 in grant funding
- ❑ **3rd Street Trail Extension (2011)**
 - ❑ Total Cost Estimates = \$800,000
 - ❑ \$600,000 in grant funding
- ❑ **Chain of Lakes Trail Avenue T Pedestrian Bridge (2012)**
 - ❑ Total Cost Estimates = \$1.8 Million
 - ❑ \$1.2 Million in grant funding
- ❑ **Avenue B Connector (2013)**
 - ❑ Total Cost Estimates = \$800,000
 - ❑ \$600,000 in grant funding

Approximate Network Total Dollars

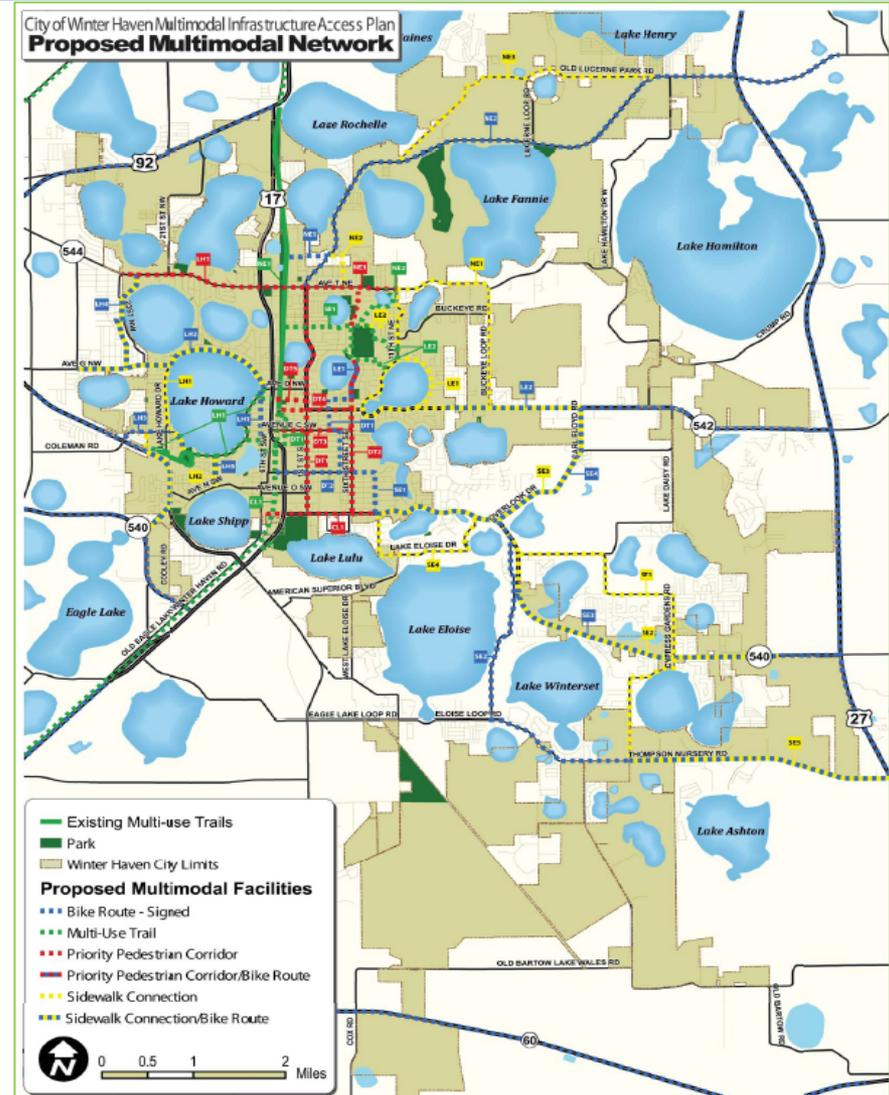
- ⑩ **Projects Total: \$7,850,000**
- ⑩ **Total Grant Funding: \$3,902,000**
- ⑩ **Total City Funds: \$3,948,000**



Winter Haven Multi-Modal System: We are on our way!

- We will continue to work with the TPO, FDOT, County, transit systems, and cities.
- We will stay committed to planning, implementing and developing our Multi-Modal system.
- The continued development of Winter Haven's Multi-Modal System will continue making Winter Haven a Premier Place to Live, Work, Play, and Raise a Family.

WINTER HAVEN
The Chain of Lakes City



SUSTAINABLE POLK



**Conserve
Land and
Natural
Resources**

POLKGREEN



Tom Wodrich, Polk County

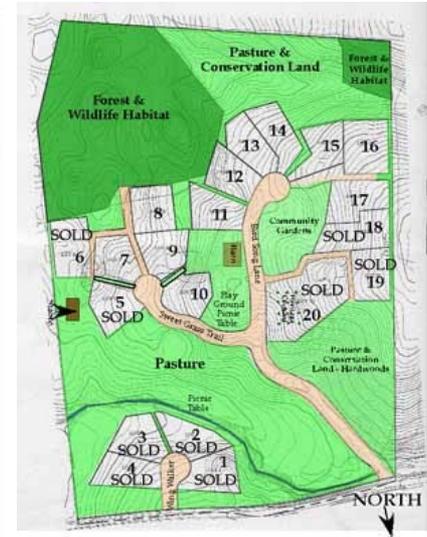
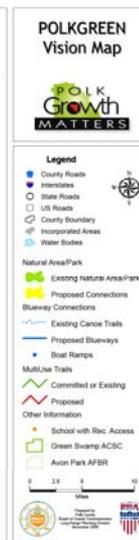
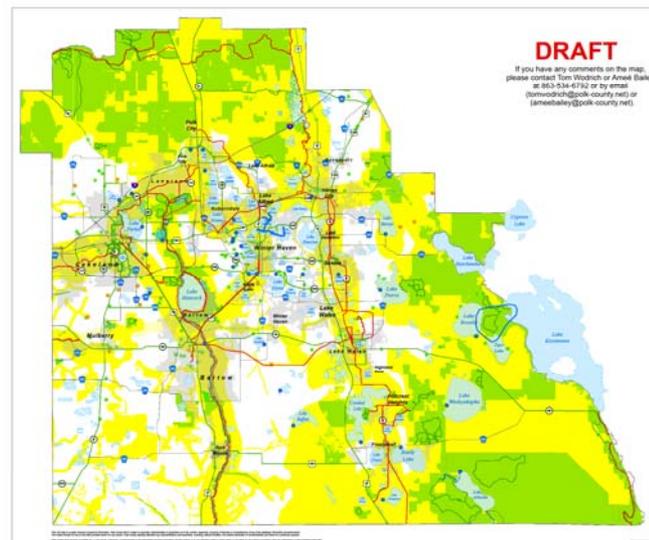
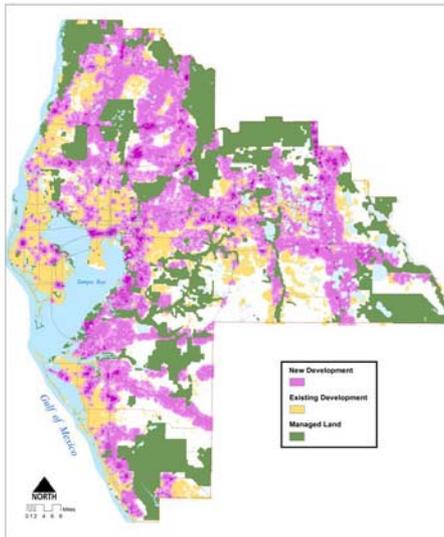
HB 697 - Green Infrastructure

- DRAFT CHANGES TO RULE 9J-5 from HB 697
 - ▣ “Green Infrastructure” means open spaces, natural areas, **greenways**, wetlands, parks, forests, treed roadway corridors, and similar areas that naturally sequester carbon dioxide and reduce the heat island effect in urban areas
 - 9J-5.006 Future Land Use Element, (2) Land Use Analysis Requirements:
 - k. Analyze strategies and actions for increasing energy efficiency and conservation, and reducing greenhouse gas emissions. At a minimum, the following strategies and actions shall be analyzed
 - 10. Green infrastructure;



What is PolkGreen?

- Polk County's GreenPrint
 - ▣ Identifies the most ecologically valuable areas: forests and wetlands, rare species habitats, aquatic biodiversity hotspots and areas important for protecting water quality
 - ▣ Identifies opportunities for interconnected network, e.g., existing and future recreational trails
- Provides framework for land use and conservation planning



Purpose

POLICY 2.124-E1: PURPOSE — The PolkGreen overlay is established to guide planning for, and the acquisition or conservation of, an interconnected network of open spaces, natural areas and agricultural lands. The overlay will provide a framework for land use policies and community investments that provide:

- a. protection of natural resources and wildlife habitat;
- b. habitat corridors through linked open spaces;
- c. protection of historic and cultural resources;
- d. recreational opportunities;
- e. community health benefits;
- f. economic development opportunities; and
- g. multi-use trails connecting population centers to natural areas.



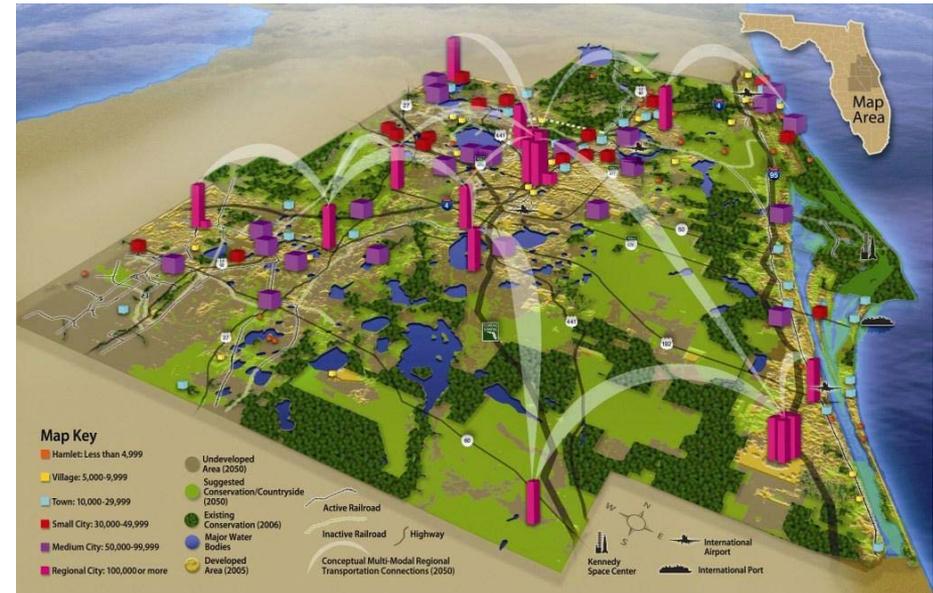
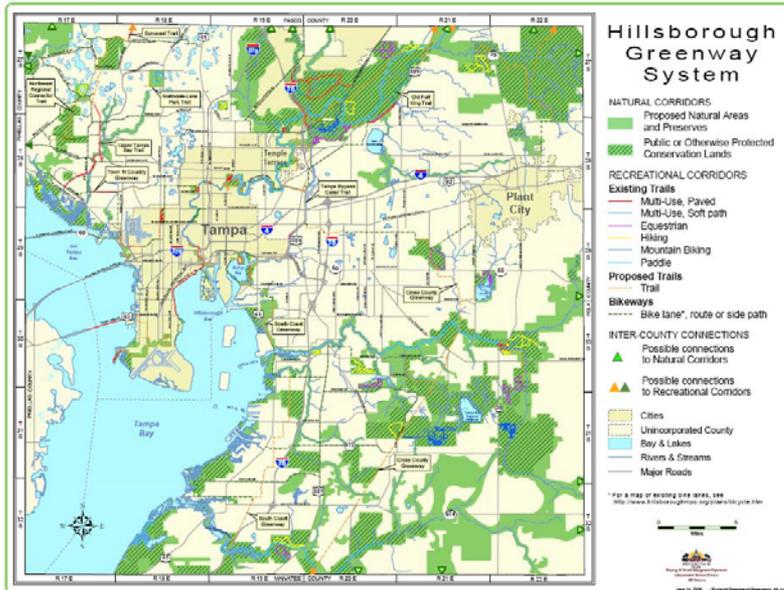
Approach

- Beginning of Stakeholder Process
- Incentive Based Approach
- PolkGreen as a Guide:
 - ▣ Promote Conservation Developments
 - ▣ Support Ecological Communities
 - ▣ Enhance Recreational Opportunities

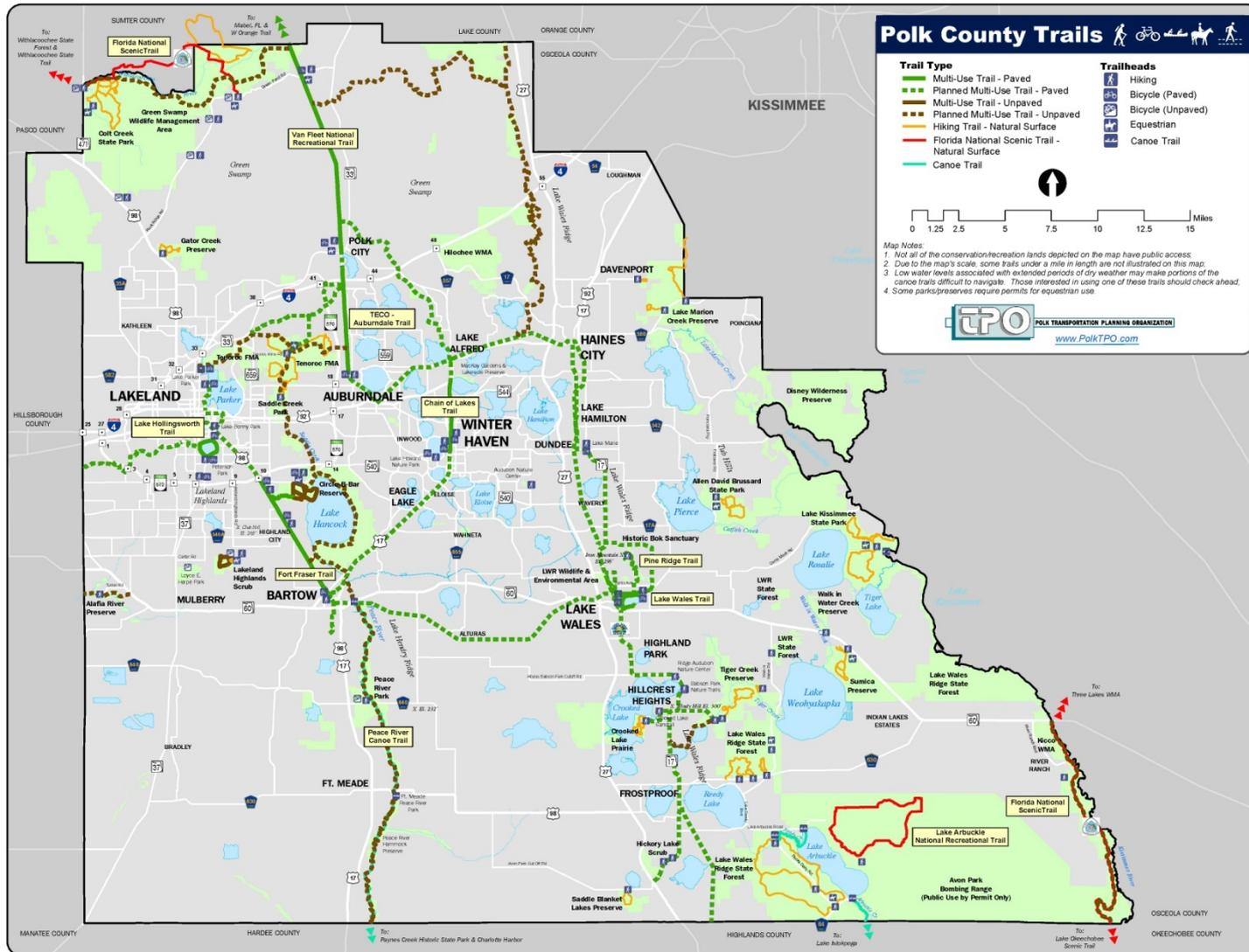


Coordination is Essential

POLICY 2.124-E3: INTERGOVERNMENTAL COORDINATION – Polk County shall coordinate with public and private agencies, municipalities and surrounding counties to establish a process for the maintenance and update of the PolkGreen overlay, as well as, the development and implementation of policies to acquire, conserve or construct green infrastructure.



Multi-Use Trail Component

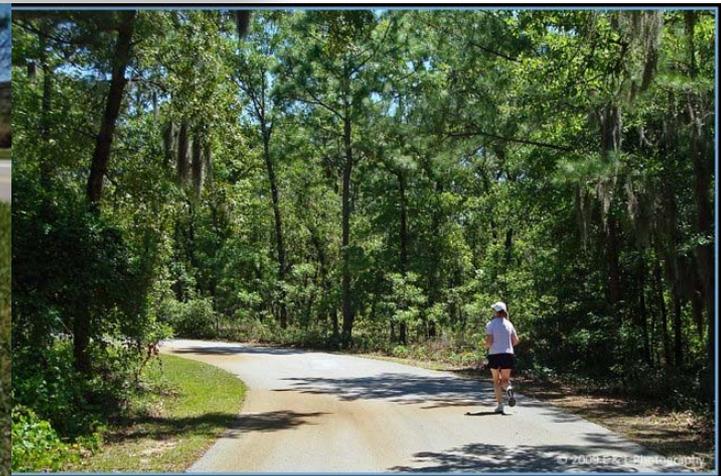


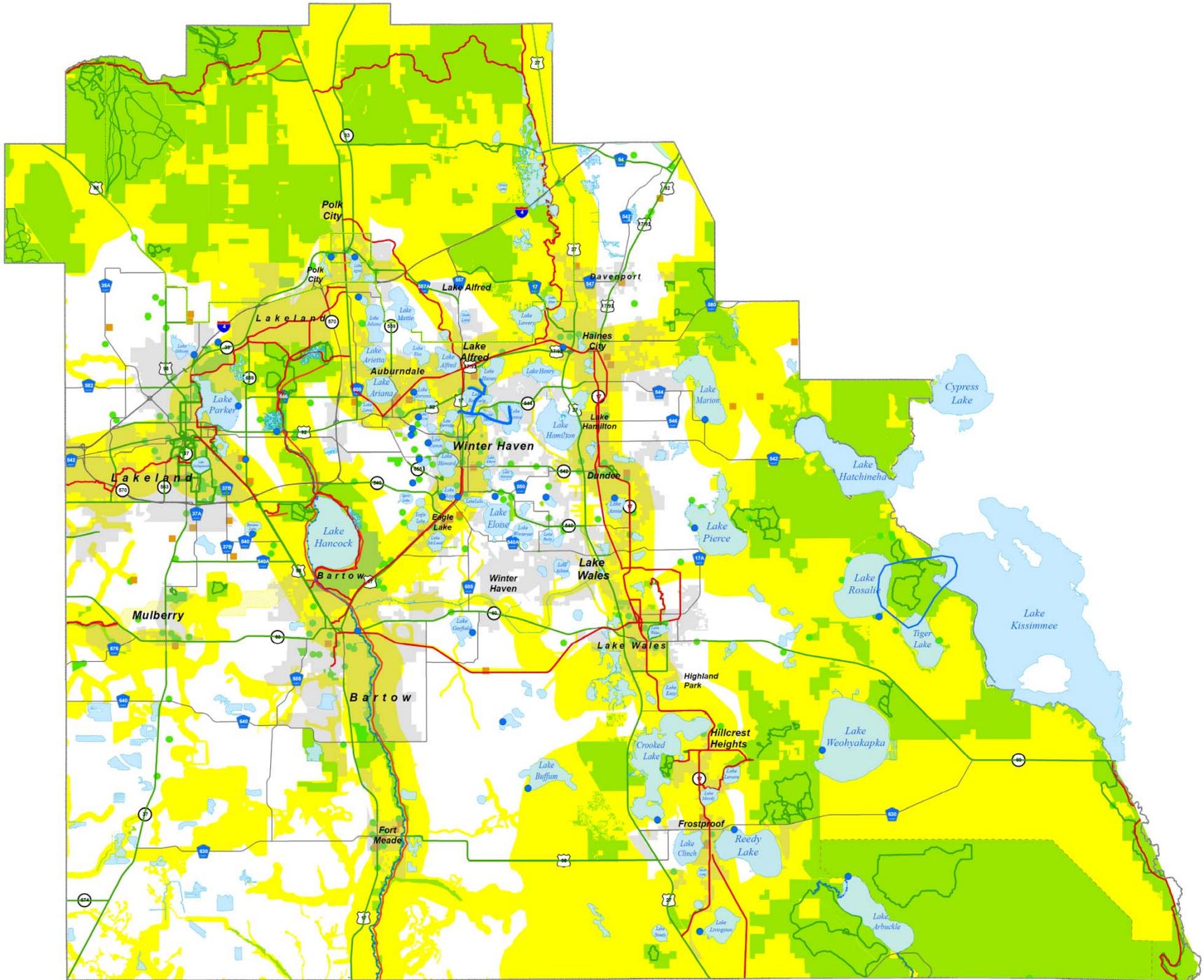
Landowners as Partners

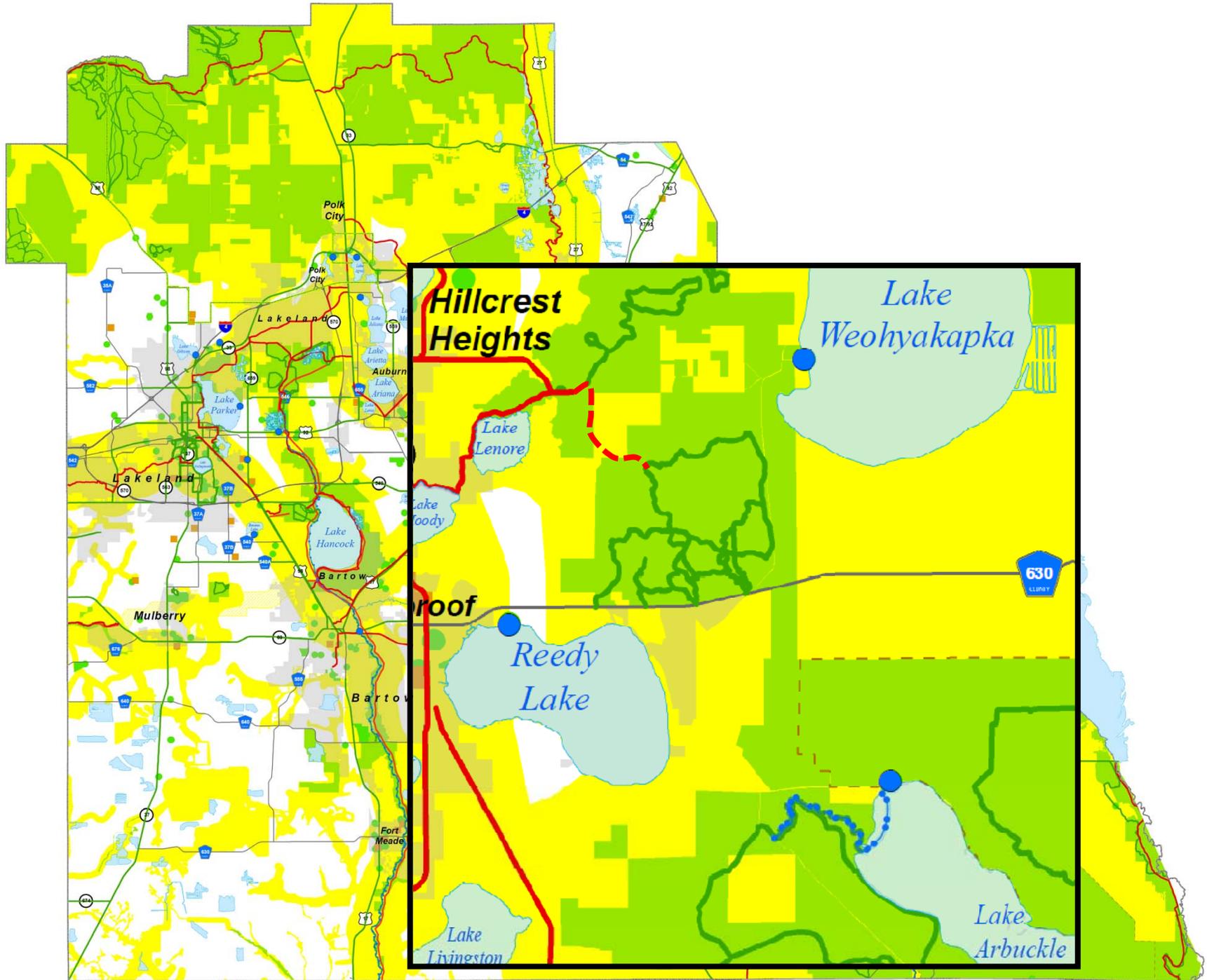
POLICY 2.124-E4: GREEN INFRASTRUCTURE ON PRIVATE PROPERTY — Polk County shall provide incentives to encourage conservation of green infrastructure assets located on private property in order to promote a network of public and privately-held open space and natural areas.

POLICY 2.124-E5: SENDING AREAS FOR TRANSFER OF DEVELOPMENT RIGHTS — The PolkGreen shall provide a basis for the identification of “sending areas” under existing and future provisions for the transfer of development rights.

POLICY 2.124-E6: CONSERVATION DEVELOPMENT — Polk County shall provide incentives to encourage the use of conservation planning principles in the development of land within the PolkGreen overlay. The Conservation Development Program established under Objective #.###-C shall include special incentives for parcels contiguous to existing environmental lands in order to promote an interconnected network of open space and to reduce fragmentation of wildlife habitat.







Hillcrest Heights

Lake Weohyakapka

Lake Lenore

Lake Woody

Lake Hancock

road

Reedy Lake

630
SR 630

Lake Livingston

Lake Arbuckle

CONSERVATION DEVELOPMENTS



Chanda Bennett, Polk County

Conservation Developments



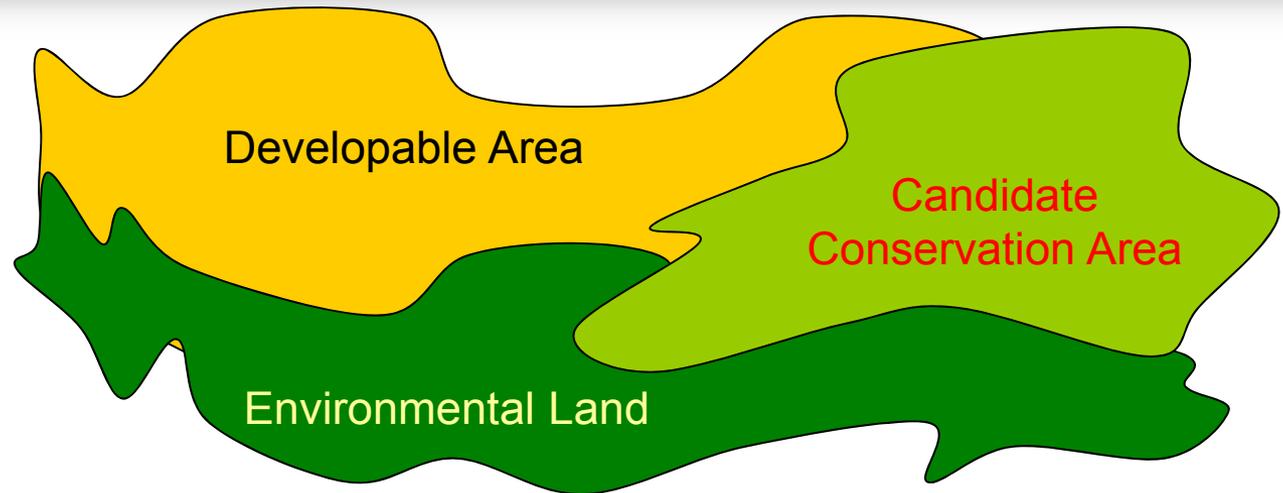
Conservation Design for Subdivisions
A Practical Guide to Creating Open Space Networks
Randall G. Arendt, Author
ISLAND PRESS (1996)

Conservation Developments

Purpose

POLICY #.###-C1: PURPOSE AND INTENT -- The purpose of the Conservation Development Program is to conserve land and natural resources by establishing policies that incentivize and result in:

- a. the conservation of natural and historic resources;
- b. the conservation of agricultural lands;
- c. the clustering of development to permanently preserve and integrate open space into neighborhoods;
- d. the provision of habitat corridors through linked open space networks;
- e. the creation of usable, accessible open space and passive recreational areas; and
- f. the more efficient use of land, streets and utilities.



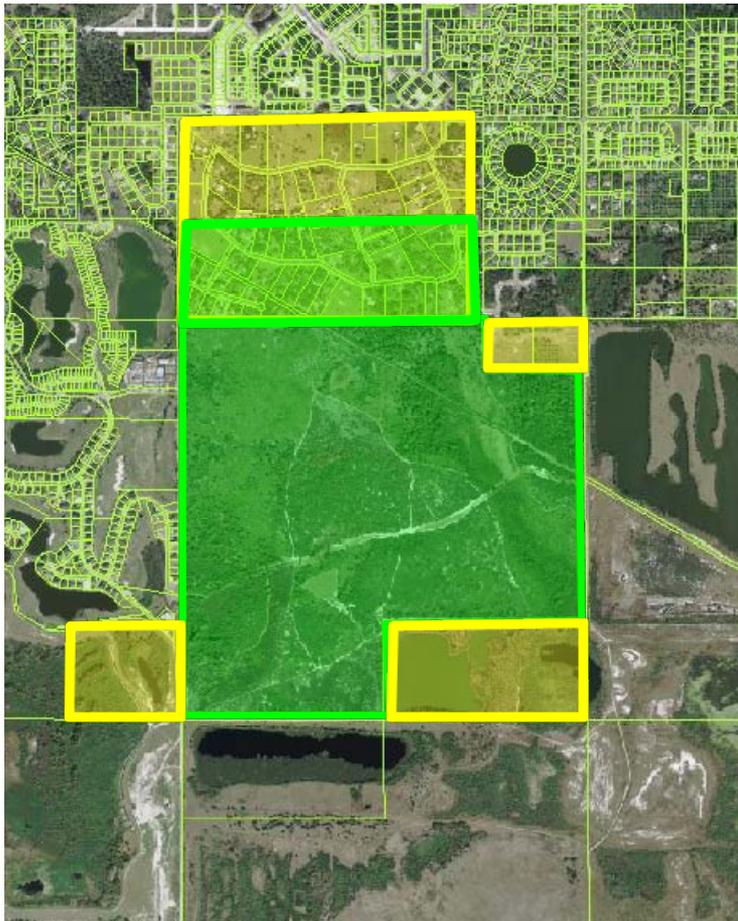
Conservation Developments

Environmental Lands

POLICY #.###-C7: PARCELS CONTIGUOUS TO ENVIRONMENTAL LANDS – The Conservation Development Program shall include incentives to encourage the use of conservation planning principles on parcels contiguous to public or privately-owned environmental lands. It shall provide an attractive alternative to large lot subdivisions in order to minimize fragmentation of wildlife habitat and provide additional open space to complement the environmental lands. The program incentives shall also encourage the use of other sustainable development practices such as Low Impact Development, Dark Skies, WaterStar and Firewise.



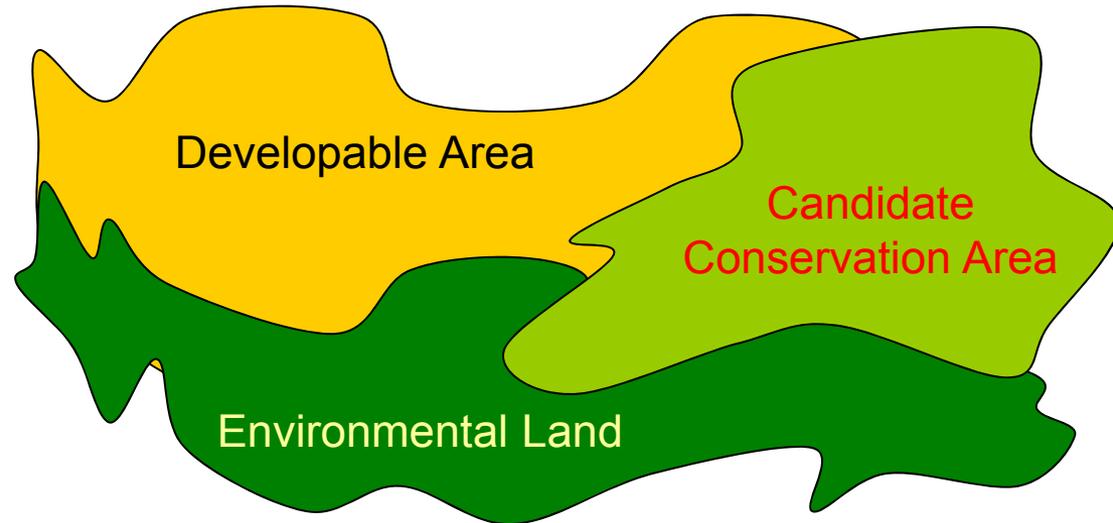
Conservation Developments



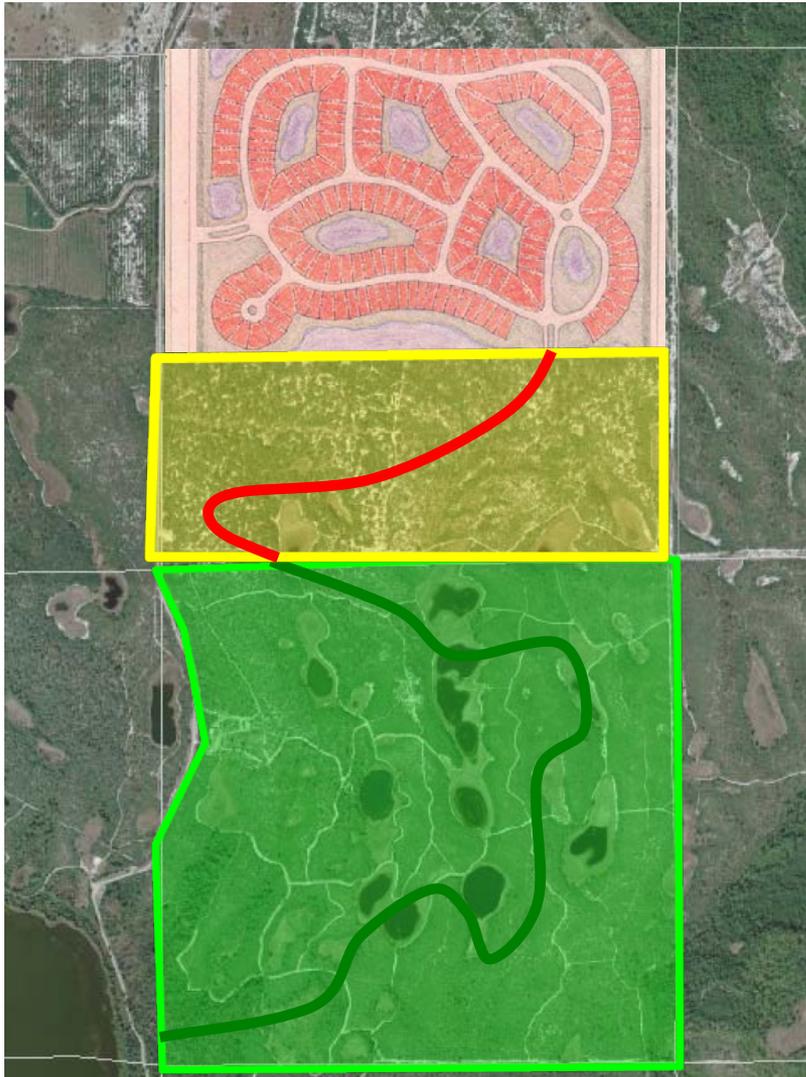
Existing Natural Area/Park



Potential Connections



Conservation Developments



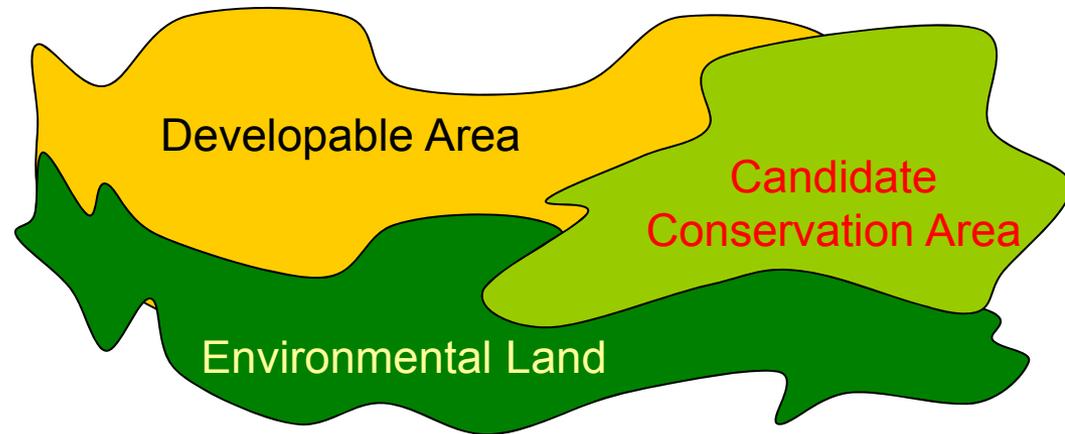
MultiUse Trails



Committed or Existing



Proposed

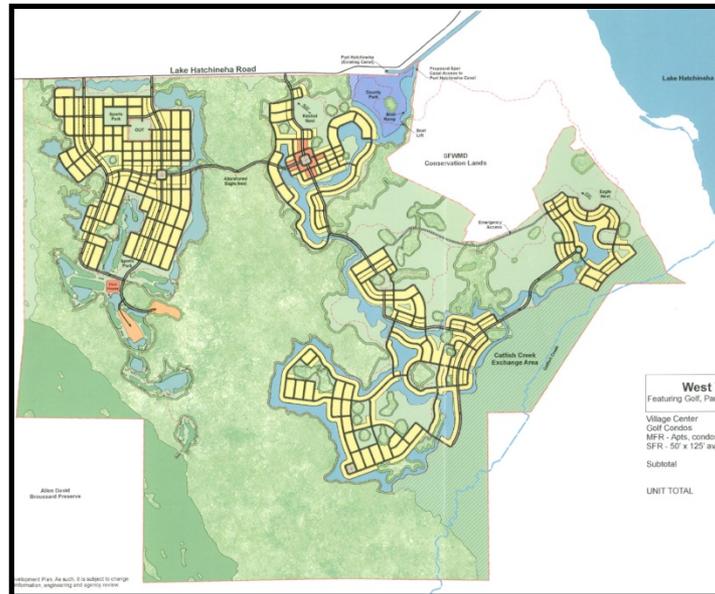


Conservation Developments

Requirements

POLICY #.###-C3: PROGRAM REQUIREMENTS – The Conservation Development Program shall incorporate conservation planning principles to include, at a minimum, the following requirements:

- the permanent conservation of at least 50% of the land area as open space (natural resource or conservation-compatible agricultural land);
- a collaborative process for the applicant, County staff and adjacent property owners to identify potential conservation areas and areas most suitable for development; and
- the submission of a Site Analysis Map; binding site plan and Conservation Management Plan.



- Site Analysis Map
 - Green/Historical Infrastructure
- Collaborative Review Process
- 50% open space
- Binding Site Plan
- Conservation Management Plan

Conservation Developments

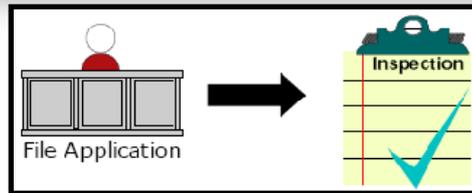
Incentives

POLICY #.###-C9: PROGRAM INCENTIVES – The Conservation Development Program shall include incentives as provided in the Land Development Code and may change over time as determined by the Board of County Commissioners. These incentives will reflect the benefits enumerated in Policy #.###-C1. These incentives may include, but will not be limited to, the following:

- a. Project approval through an administrative and technical review process;
- b. Expedited permit reviews;
- c. Reduced impact or permitting fees; and
- d. Community Recognition and Awards.

POLICY #.###-C10: FLEXIBLE DESIGN STANDARDS – The Land Development Code shall include flexible design standards to further the objective of the Conservation Development Program. These standards shall promote Low Impact Development practices and at a minimum address:

- a. the elimination or reduction of minimum lot sizes and setbacks;
- b. roadway design and drainage; and
- e. stormwater facilities.



LOW IMPACT DEVELOPMENT PRACTICES

Chuck Roberts, Chastain-Skillman, Inc.
Steve McConn, Chastain-Skillman, Inc.

Credits & Acknowledgements

- Glenn Acomb, ASLA
 - ▣ Professor of Landscape Architecture, University of Florida
 - ▣ Co-founder for Resource Efficient Communities
 - ▣ Madera case study
- ECONorthwest
 - ▣ Economic consulting firm, Portland, OR
 - ▣ The Economics of Low-Impact Development: A Literature Review
 - ▣ Ed MacMullan and Sarah Reich

The LID Concept

- Integrated stormwater management approach
- Mimics natural ecosystem
- Decentralized stormwater management
- Objectives
 - ▣ Minimize site impacts
 - ▣ Reduce erosion
 - ▣ Strategic runoff timing
 - ▣ Improve water quality
 - ▣ Increase groundwater recharge

LID Features

- Addresses stormwater near the source
 - Ecoroofs
 - Reduced impervious areas
 - Rain barrels
 - Bio-retention of stormwater



LID Benefits

- ❑ Reduced consumption of resources
- ❑ Reduced site impacts
- ❑ Environmental enhancement
- ❑ Reduced flooding
- ❑ Improved economics
 - ▣ Lower capital costs
 - ▣ Lower O&M costs
 - ▣ Higher yield
 - ▣ Premium prices



LID Uncertainties

- Proactive involvement early in design
- Technical efficacy
- Lack of track record
- Predisposition for conventional development
- Fire department requirements
- Education
- Incomplete understanding of economics
- Responsibility for maintenance

LID Economics

- Stakeholders
 - ▣ Developers
 - ▣ Governmental entities
 - Approval agencies
 - Enforcement agencies
 - Infrastructure providers
 - ▣ Home owners



LID Success

- Criteria
 - ▣ Accomplishes conservation objectives
 - ▣ Benefits to all three stakeholder groups



Source: Charlotte-Mecklenburg
Stormwater Services

LID Economics

- Two components
 - ▣ Tangible values (developers; home owners)
 - Design and construction cost
 - O&M costs
 - Property value enhancement (about 20% greater)
 - ▣ Intangible values (government; community)
 - Resource conservation
 - e.g., 2/3 less water consumption for irrigation
 - Reduced need for infrastructure
 - Technical efficacy
 - Connectivity

LID Economic Perspective



- Florida case study
- Compilation of findings in literature review

Florida Case Study

□ Madera

- 44 acre residential
- Single family detached
- 88 quarter acre lots
- For profit venture
- Oak and pine forest with well drained soils
- Priced at 50% above average local home price
- Met EnergyStar and EnergyWater Standards
- Limited number of builders
- Educational prequalification for builders
- Imposed Covenants, Codes, and Restrictions



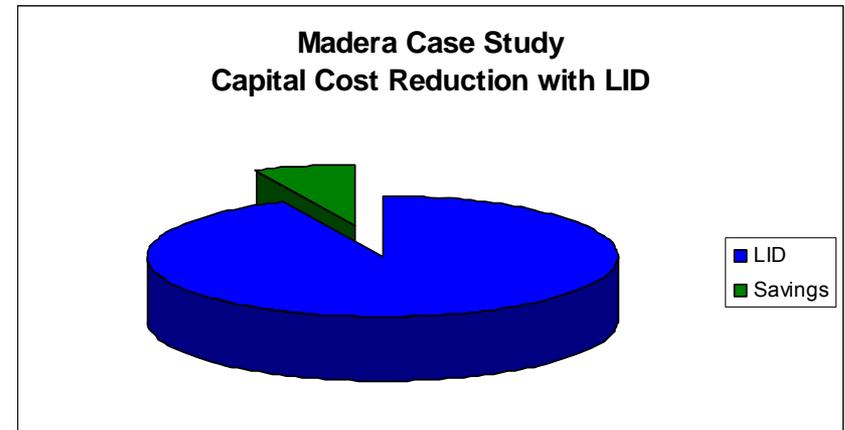
Florida Case Study

- Features
 - ▣ Loop style layout
 - ▣ On major arterial road and transit line
 - ▣ Rear yard buffers on dedicated open space
 - ▣ Limited clearing
 - ▣ Narrow ROW (50 ft) and 22 ft roads
 - ▣ Presumptive zero discharge
 - ▣ Limited use of turf grass
 - ▣ Rain gardens
 - ▣ Pavers

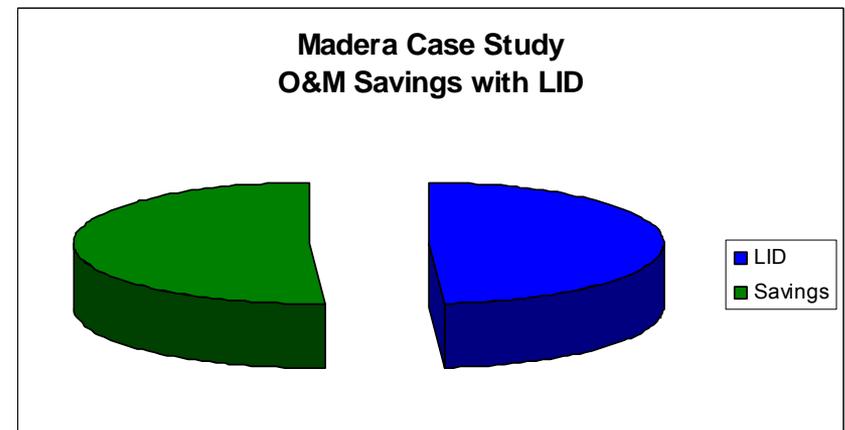


Florida Case Study

- 7.6% reduction in installed capital cost

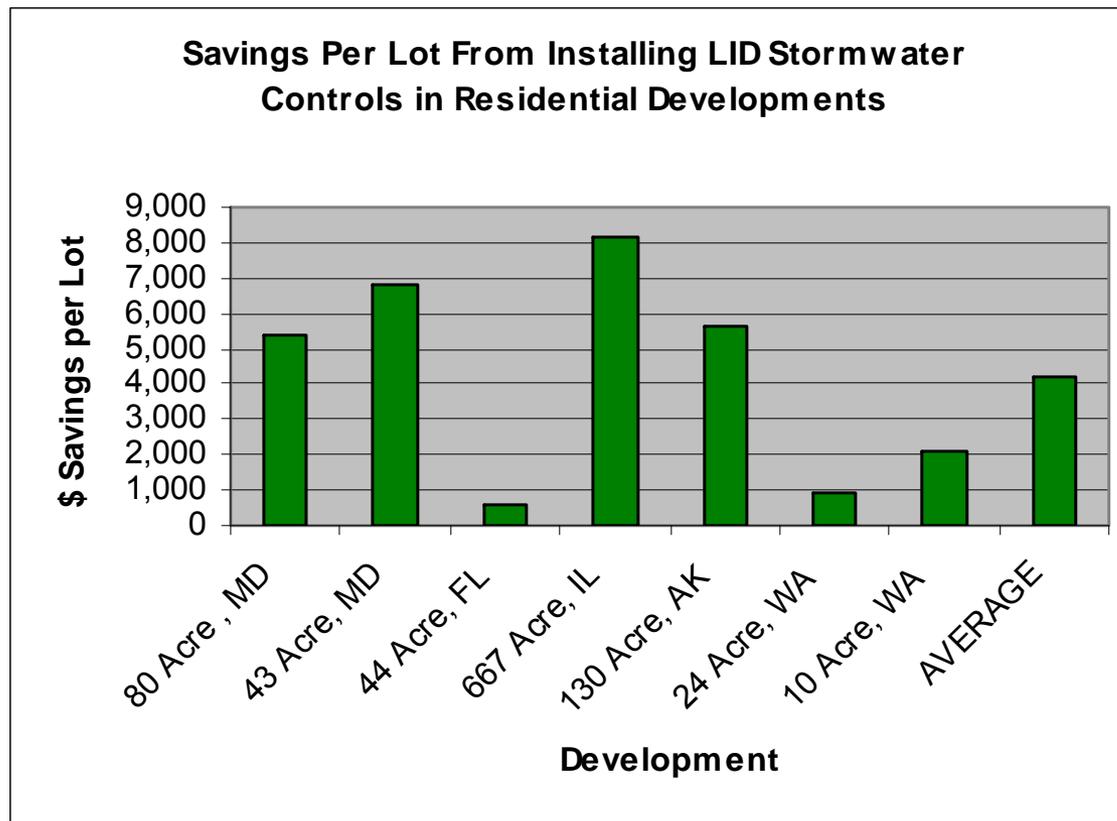


- 51% reduction in O&M cost projected over 30 yr



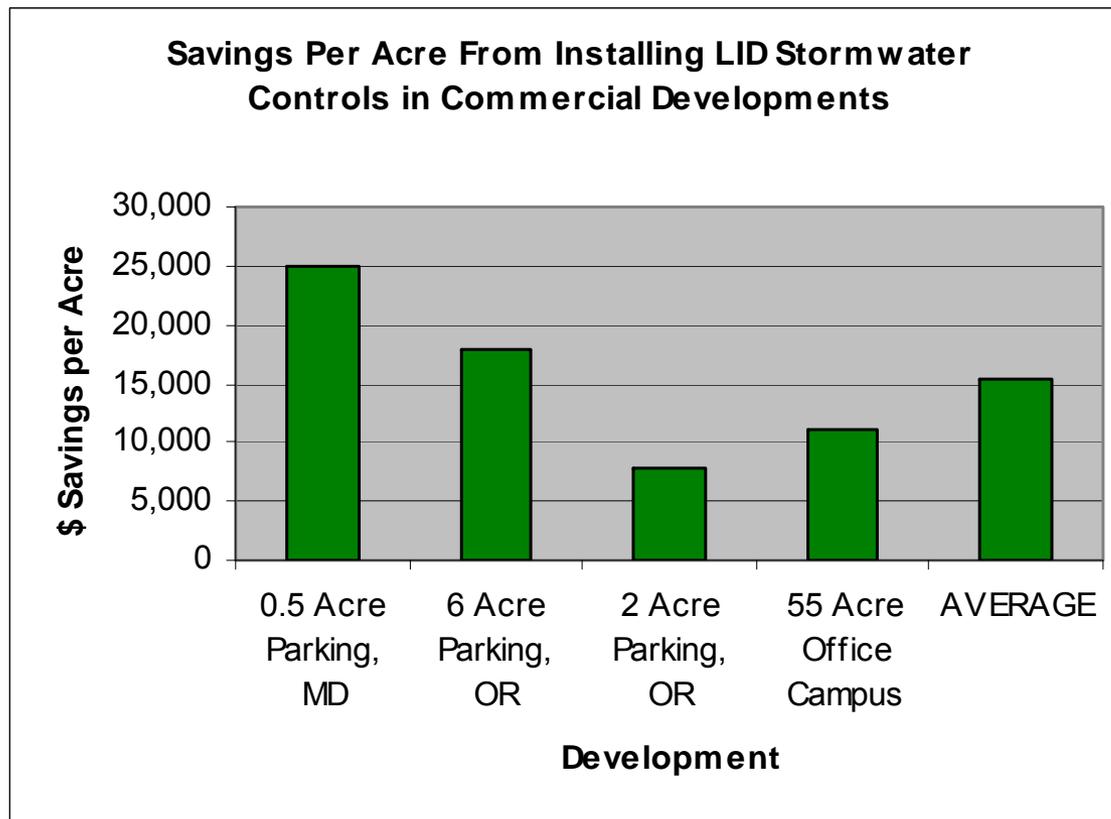
Compilation of Other LID Results

□ Residential applications



Compilation of Other LID Results

□ Commercial applications



Summary

- LID is a step toward sustainable development
- Mimics natural ecosystem
- Provides real tangible economic benefits
 - ▣ Lower construction cost
 - ▣ Significantly lower O&M cost
 - ▣ Increased property value growth
- Provides real intangible economic benefits
- Implementation will require education
- Incentivized by clear governmental support

