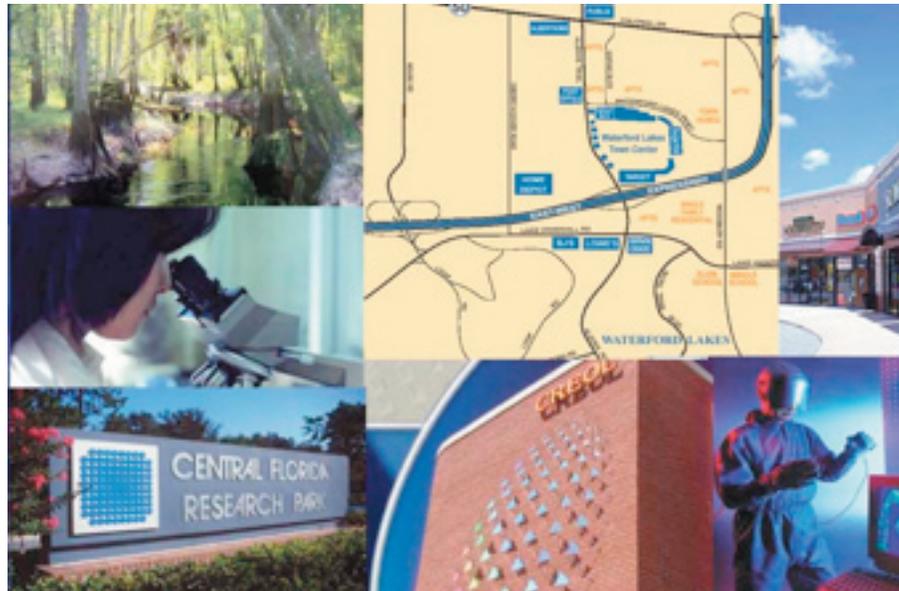


# THE COMMUNITY PLANNING COLLABORATIVE



ORANGE COUNTY, FLORIDA  
2005



## **This Report**

This report includes a description of the Community Planning Collaborative (CPC) initiative and outcomes of its 5 phases. The main body of this report has 3 sections: 1) training and capacity building for the Orange County Planning Division; 2) community visioning for the Innovation Way project ; and 3) details about Innovation Way alternative growth scenarios and public feedback from the CPC Summit held in Orlando, Florida, October 27-30, 2005.

The Appendix includes information about the roles of the decision support tool providers who helped prepare alternative futures for Innovation Way; details about trainings and decision support tools featured at the expo held at the CPC Summit; information on the data and sources used by tool providers to generate scenarios and analysis; final maps and analysis provided by each tool provider; and information on how to become involved with the Innovation Way project.

## **A Special Thanks to CPC Partners**

The Orange County Planning Division  
Linda Chapin, Metropolitan Center for  
Regional Studies at the University of  
Central Florida  
Jeffrey Jones, East Central Florida  
Regional Planning Council  
Shelley Lauten, *myregion.org*

## **PARTICIPATING TOOL PROVIDERS**

*CRITERION PLANNERS*

*PLACEWAYS/COMMUNITYVIZ*

*ENVISION SUSTAINABILITY TOOLS*

*FORSEE CONSULTING*

*INFRACYCLE*

*NATURESERVE*

*RENAISSANCE PLANNING GROUP*

*THE FLORIDA NATURAL AREAS*

*INVENTORY*

*THE PROJECT INTEGRATION PROCEDURE*

*WINSTON ASSOCIATES*

## **PUBLIC PARTICIPATION EXPERTS**

*BILL LENNERTZ, NATIONAL CHARRETTE*

*INSTITUTE*

*GIANNI LONGO, ACP VISIONING AND  
PLANNING, LTD.*

*GEORGE JANES, ENVIRONMENTAL  
SIMULATION CENTER*



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## I. Introduction

The Community Planning Collaborative (CPC) initiative was designed to apply tools for community design and decision making to a real planning problem in Orange County Florida and demonstrate how decision support systems can improve the quality of results and overall democratic nature of land use planning and community development.

Through an unprecedented collaborative effort between decision support tool providers, national experts in democracy and planning, and community members (local planners, stakeholders, general public, and educational institutions), Orange County gained a clearer understanding of their current decision support capacity and identified new decision support tools to ensure the integration of good information, comprehensive analysis, and strong civic engagement for current and future planning projects.

PlaceMatters, tool and service providers, and partner organizations (The Metropolitan Center for Regional Studies at the University of Central Florida, the East Central Florida Regional Planning Council, and *myregion.org*) worked with the Orange County Planning Division to implement the following five phases of CPC.

### 1. Community Assessment

Reviewed Orange County's planning challenges and evaluated the current technical and institutional capacity needed to make better decisions on land use and community development. (Click here to download the Final Assessment Report.)

### 2. Training and Capacity Building

Provided training to Orange County and participating organization staff members on visioning, facilitation, and decision support tools.

### 3. Community Visioning

Hosted two community visioning meetings and gathered and synthesized information on public values and concerns. (Click here to download the final report.)

### 4. Community Planning Collaborative National

Invited members of the community to participate in a hands-on design process to address Innovation Way planning challenges on October 27-30, 2005. This was also a key component of a national event to demonstrate, live, the application of decision support tools to a national audience.

### 5. Implementation Follow-up

PlaceMatters continues to provide assistance to ensure progress in developing the technical and institutional capacity needed to make better decisions on land use and community development.





## Community Planning Collaborative 2005

### The Process

The 5 phases of the CPC process centered around the Master Planning Effort for 32,000 acres southeast of Orlando's International Airport. This area includes a newly established technology corridor called Innovation Way that will link this land to the University of Central Florida. Planning efforts considered the future of undeveloped land and development projects already underway.

The process of planning for Innovation Way used the tools available through CPC and consisted of three major public involvement activities: Visioning Workshops, the Scenario Public Meeting, and the Hands-on Planning Session and Public Forum.

These activities yielded valuable results that should be used as the planning of Innovation Way proceeds.

The Visioning Workshops provided goal statements and a vision, examined critical questions, and led to the creation of the indicators used to develop and analyze alternative growth scenarios for Innovation Way. The other activities were conducted during the CPC national conference. These activities documented participants' views and generated policy recommendations.

The public involvement activities and related results are in this report.

### A Special Thanks to CPC Partners

The Orange County Planning Division  
Linda Chapin, Metropolitan Center for  
Regional Studies at the University of  
Central Florida  
Jeffrey Jones, East Central Florida  
Regional Planning Council  
Shelley Lauten, [myregion.org](http://myregion.org)

*IN HIS 2005 STATE OF THE COUNTY ADDRESS, MAYOR RICHARD CROTTY REVEALED A NEW STRATEGY FOR SOUTHEAST ORANGE COUNTY. CALLING THIS REGION "INNOVATION WAY," THE MAYOR PLANS TO CREATE A CORRIDOR LINKING THE UNIVERSITY OF CENTRAL FLORIDA TO THE ORLANDO INTERNATIONAL AIRPORT. MAYOR CROTTY HOPES TO INTRODUCE ADDITIONAL HIGH-VALUE JOBS INTO THIS REGION'S ECONOMY TO HELP ORANGE COUNTY CONTINUE TO LEAD CENTRAL FLORIDA INTO THE 21ST CENTURY. THE NORTHERN HALF OF INNOVATION WAY ALREADY CONTAINS HIGH-QUALITY RESIDENTIAL COMMUNITIES, ACADEMIC INSTITUTIONS, AND COMMERCIAL DEVELOPMENTS. THE SOUTHERN PORTION OF THIS AREA IS LARGELY UNDEVELOPED. ORANGE COUNTY INITIATED THE AVALON SOUTH ECONOMIC DEVELOPMENT AND ENVIRONMENTAL RESOURCE MANAGEMENT STUDY TO CREATE A CONCEPTUAL LAND USE FRAMEWORK TO IDENTIFY AREAS OF THE SOUTHERN PORTION WHERE GROWTH MAY OCCUR, DETERMINE APPROPRIATE ENVIRONMENTAL CONTROLS, AND ENSURE THAT HIGH-VALUE JOBS AND HIGH-TECH INDUSTRIES ARE ENCOURAGED FOR SUSTAINABLE ECONOMIC DEVELOPMENT.*

*TO ENSURE THAT THE FRAMEWORK BALANCES TECHNICAL STUDIES AND PUBLIC INPUT, THE COUNTY INVOLVED RESIDENTS, COMMUNITY LEADERS, DEVELOPERS, AND CORPORATE CITIZENS IN THE PLANNING PROCESS. THIS DOCUMENT SUMMARIZES THE RESULTS OF THE PUBLIC INVOLVEMENT ACTIVITIES, WITH A FOCUS ON EVENTS RELATED TO THE COMMUNITY PLANNING COLLABORATIVE.*



### II. Decision Support Needs Assessment

On June 17th 2005, Paul Patnode of the Environmental Simulation Center met with Orange County Planning Division staff to assess the County's current technical and institutional capacity and planning objectives and to identify ways in which decision tools might build upon current capacity and support the implementation of the identified objectives.

The daily activities and special projects of the five Orange County planning division subgroups are outlined in the report in addition to existing technical capacity in regard to GIS decision support tools and public outreach. Various opportunities for appropriate decision support tools are presented along with the pros and cons of each. ([Click here to download the Final Assessment Report.](#))

The Final Assessment Report discusses, in detail, two categories of decision support tools for consideration: impact analysis/ scenario planning tools and visualization tools. These tools are discussed in the context of pros and cons and the institutional capacity required to use them well and appropriately. Finally, the report includes a summary table that lays out each software package discussed, its primary use, staff skill required, and associated costs.

### III. Training and Capacity Building

Several steps were taken throughout the CPC initiative to help the Orange County Planning Division and partner organizations build upon their existing capabilities to address planning challenges in the future.

#### Visioning Training

Visioning and public participation experts Ken Snyder of PlaceMatters and Jamie Greene of ACP Planning and Visioning talked to Orange County and participating organization staff about developing and implementing an effective visioning process. ([Click here to download Visioning Presentation.](#))

#### Facilitation and Electronic Notetaker Training

Local staff were trained on facilitator and notetaker techniques in preparation of the public participation events for Innovation Way, including two visioning meetings and the Summit public meetings to gain feedback on alternative scenarios for Innovation Way. In addition to the trainings, staff received hands-on experience using electronic planning tools such as keypad polling and electronic notetaking. ([Click here to download the facilitator and notetaker instructions.](#))

### IV. Training on Decision Support Tools

Two 3-hour trainings were offered to local staff and national participants during the Summit. Orange County, *myregion.org*, and East Central Florida Regional Planning Council staff took advantage of several offerings, including training in different scenario and analysis tools, visualization tools, and building stakeholder involvement tools and techniques. (See Appendix A for CPC tool providers, their decision support roles, and the trainings offered at the Summit.)

#### Decision Support Tools Expo

Orange County Planning Division staff and partner organizations were also invited to partake in the Decision Support Tools Expo to have a chance to casually observe decision support tools in action and speak directly with tool providers about how they might help enhance planning in Orange County and the region.



## V. Decision Support Tools and Innovation Way

### A. Visioning Workshops and Outcomes

Both public participation and GIS-based analysis tools were applied to the CPC phases including the two visioning meetings and two public meetings and a hands-on planning session held during the CPC Summit October 27 and 29, 2005.

#### Visioning Workshops and Outcomes

Approximately 200 Orange County residents, community leaders, developers, and corporate citizens participated in the two visioning workshops. One was held on Monday, July 18, 2005 at the WordSpring Discovery Center, and the second workshop was conducted on Saturday, August 13, 2005, at the University



of Central Florida Student Union. (Click here to download the final report.)

The workshops were designed to integrate facilitated small group activities with electronic polling and wireless electronic note-taking technology. The use of technology in the visioning workshops provided the opportunity to dramatically shorten the “feedback loop,” allowing participants to collectively express preferences and quickly set priorities within the same workshop.

Trained facilitators worked with participants on two workshop activities: Ideas for the Future Brainstorm and Critical Questions. The Brainstorm was designed to allow participants to generate and share ideas for the future of Southeast Orange County. The Critical Questions activity was designed to engage citizens in a meaningful way to examine key issues affecting communities and to recommend strategies to address those issues. The Critical Questions dealt with economic prosperity, land use and development, the natural environment, and transportation. In addition to the facilitator, a note-taker was present at each table to encode the information into a computer. The groups’ input was processed and presented during the survey portion of the workshop,

Measuring Agreement. Participants indicated their priorities through the use of wireless electronic polling technology. The results of these discussions provide a foundation of ideas for the future of Innovation Way and offer approaches to dealing with critical issues related to economic prosperity, land use and development, natural environment, and transportation. (To see detailed results from these meetings download the final report.)

Vision statements generated at the meeting can contribute towards the formation of a single, all-inclusive vision for the future, as described below.

- The visions for land use emphasize creating mixed-use communities, and creating places where people can “live and work” in a walkable environment. People want to be able to move around their neighborhoods and the larger community easily, with short commuting distances, connectivity within and between areas, and linked multimodal transportation options including efficient roadways, sidewalks, walking paths, bike trails, and public transit.
- They also emphasize protecting natural assets, such as uplands,



wetlands, water resources, wildlife habitats, parks, and open spaces, for environmental reasons, for recreation, and for preserving the character of the area.

- Character and appearance are key concerns for retaining the unique “look and feel” of the area, as well as promoting attractive buildings and landscaping.
- Planning is seen as a tool to carefully determine where investments in infrastructure and facilities, such as roads, drainage, transportation, and schools, should be made before development occurs.
- Finally, these visions confirm the role that the Innovation Way area can have in invigorating the economy of the region with high-tech businesses and well-paying jobs.

### **B. Interactive Public Meetings to Gain Feedback on Innovation Way Scenarios**

Public meetings at the CPC Summit in October were designed to be interactive sessions to gather feedback on alternative scenarios for Innovation Way and demonstrate the use of decision support tools, live, to a national audience. Gianni Longo of ACP Planning and Visioning assisted PlaceMatters in designing an interactive public process that integrated the use of e-participation techniques such as web-mapping and keypad polling.

On Thursday, October 27, 2005, the Innovation Way Scenario Public Meeting was held from 6 p.m. to 9 p.m. The public and CPC conference attendees worked side by side to provide direction for creating final scenarios for use during the digital charrettes on Saturday. The program began with extensive presentations on the process, the regional context, and an overview of five scenarios. The results of the various tool providers’ analyses were also presented. An electronic poll was conducted to collect demographic information and elicit feedback on the most important indicators for evaluating the scenarios. (See Feedback/ Results beginning on page 36.)

The meeting then turned to small group activities led by trained facilitators. Participants worked in small groups on two activities related to two of the five scenarios.

The first activity was a mapping exercise for the Transit-Oriented Development scenario. Participants worked with a large map of the proposed scenario and placed green and red sticky dots on it to indicate the strong (green) and weak (red) elements of the scenario. They then identified the top three of each scenario and discussed the reasons why they considered the elements to be strong or weak. Each group’s results were transferred to an electronic map, allowing the results of all table groups to be combined.





## Community Planning Collaborative 2005

The second activity was a group discussion of the Compact Village scenario. Again, the participants were asked to think about the strong and weak elements of the scenario, but instead of mapping their ideas, the group discussion was documented by the facilitator on recording sheets.

Following the Scenario Public Meeting, the tool providers spent time reviewing participant input and preparing for the Hands-on Planning Session on Saturday, October 29, 2005, from 8:30 a.m. to 12:00 p.m. This event was followed by the Public Forum for the Future of Innovation Way from 3:30 p.m. to 5:00 p.m.

During the hands-on planning session, local and national participants worked in breakout groups to build on the feedback generated in the Thursday evening public



meeting, create new iterations of scenarios, and develop policy recommendations that could support the implementation of those scenarios. The five breakout group topics are listed in the sidebar under Tool Provider Topics.

The participants presented their final scenarios for Innovation Way along with policy recommendations for the group to discuss and vote on during the Public Forum. (The complete PowerPoint presentation and polling results are available here.)

After each of the breakout groups presented a summary of their discussion, participants were asked to rate each group's proposed recommendations on a scale of one to nine, where one equals very negative impact, five equals neutral/undecided, and nine equals very positive impact. The results from the national participants and local participants were separated at the event in order to ensure direction for Innovation Way was only influenced by members of the community.

Results from these public sessions can be found in the Public Feedback section beginning on page 36.

### **TOOL PROVIDER TOPICS FOR THE HANDS-ON PLANNING EXERCISES**

- *LAND USE AND TRANSPORTATION*
- *HABITAT PLANNING*
- *FISCAL ANALYSIS*
- *VISUALIZING THE VILLAGE CENTER CONCEPT*
- *BUILDING COLLABORATIVE MEETING PARTICIPATION*

### **PUBLIC PARTICIPATION AT THE CPC SUMMIT**

*THERE WERE APPROXIMATELY 60 LOCAL PARTICIPANTS WHO PARTICIPATED IN THE FIRST PUBLIC MEETING ON THURSDAY EVENING AND APPROXIMATELY 40 LOCALS PARTICIPATED IN THE HANDS-ON PLANNING SESSION, THE SECOND PUBLIC FORUM, OR BOTH. FIFTEEN LOCAL REPRESENTATIVES PARTICIPATED IN THE ELECTRONIC POLLING ACTIVITIES. THERE WERE 30 NATIONAL PARTICIPANTS WHO JOINED IN THE POLLING BUT THEIR POLLING RESULTS WERE SEPARATED AT THE EVENT AND IN THIS REPORT.*



## C. Innovation Way Scenarios

In preparation of the October 27 public meeting, decision support tool providers worked with PlaceMatters to add necessary detail to five scenarios created by the Ivey Planning Group. A sixth scenario, with a focus on transit-oriented development, was created and analyzed by PlaceMatters and the participating tool providers as well. A seventh and final scenario was created during the Summit in order to incorporate feedback from the public on the other scenarios. In addition, two alternative scenarios at the neighborhood scale were created and presented to the public in order to gain input on alternative concepts for prototype village centers proposed in some of the alternative plans for Innovation Way.

All the Innovation Way Scenarios were analyzed to see how they fared against indicators that emerged from the public visioning meetings. The indicators fall within one of the following five categories.

- Land Use
- Environmental Issues
- Transportation
- Fiscal and Infrastructure
- Economic

## List of Scenarios Created and Evaluated for the CPC Summit

### Base Scenarios Created by the Ivey Planning Group and Analyzed by Participating Tool Providers

1. Current Trend
2. Compact Edge
3. Village
4. Activity Village
5. Compact Village

### Additional Scenarios Created and Analyzed by PlaceMatters and Tool Providers

6. Transit-Oriented Development (TOD)
7. Hybrid Compact Village
8. A Neighborhood Scale Business as Usual Prototype of a Neighborhood Center
9. A Neighborhood Scale Transit-Oriented Development of a Neighborhood Village Center Prototype

## INDICATORS GENERATED FROM THE VISIONING WORKSHOPS USED TO CREATE AND ANALYZE SCENARIOS

1. *LAND USE BALANCE - PORTION OF LAND AREA DEDICATED TO DEVELOPMENT AND INFRASTRUCTURE VS. OPEN SPACE*
2. *JOBS/HOUSING BALANCE - TOTAL JOBS DIVIDED BY TOTAL HOMES*
3. *WATER QUALITY AS AFFECTED BY IMPERVIOUS VS. NATURAL SURFACES*
4. *IMPACTS TO BIODIVERSITY AND HABITATS BY DEVELOPMENT SCENARIO*
5. *TRANSPORTATION BALANCE - AVAILABILITY OF OPTIONS AND PERCENTAGE OF TRIPS BY MODE*
6. *PROXIMITY - PERCENTAGE OF HOMES WITHIN WALKING DISTANCE OF SHOPPING, EMPLOYMENT, AND TRANSIT*
7. *FISCAL IMPACTS OF DEVELOPMENT SCENARIOS*



## Community Planning Collaborative 2005

### D. Comparative Analysis of Scenarios for Innovation Way

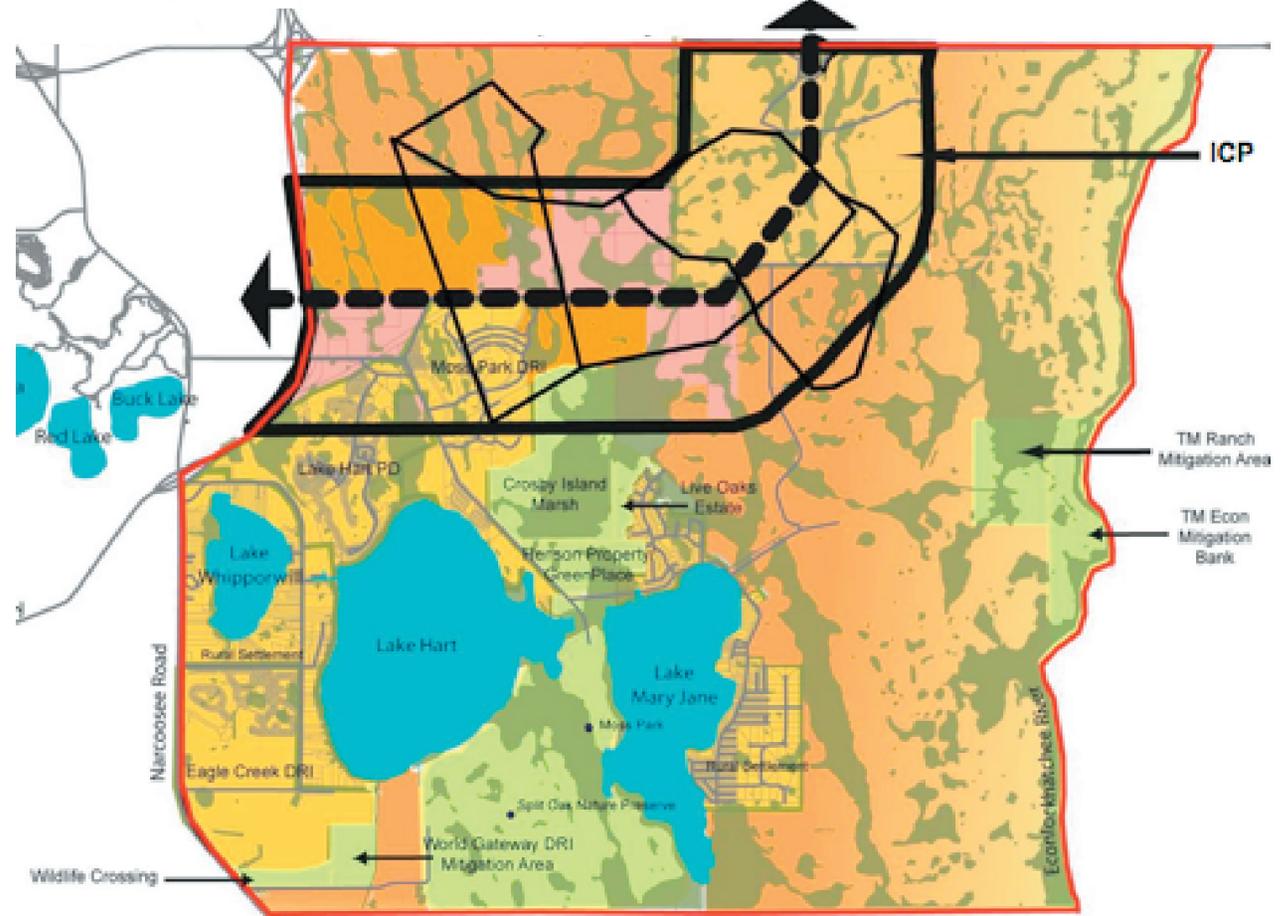
#### Current Trend

- Fewer incentives to preserve land
- Less opportunity for interconnected park & preservation system
- Currently adopted environmental buffers applied
- Residential development spread over the entire study area

#### **Land Use**

Residential	64,072 units
Industrial	10.5 million sq. ft.
Commercial/Office	10.1 million sq. ft.
High-tech	3.03 million sq. ft.

Beachline Expressway





## Compact Edge

- Eastern 1/3 of study area not heavily impacted
- Interconnection of parks, preserved lands, & conservation areas
- Incentives to preserve land through credits for lands south & east of corridor
- Community district linked to parks and natural lands
- Buffers enhanced

### Land Use

Residential

37,353 units

Industrial

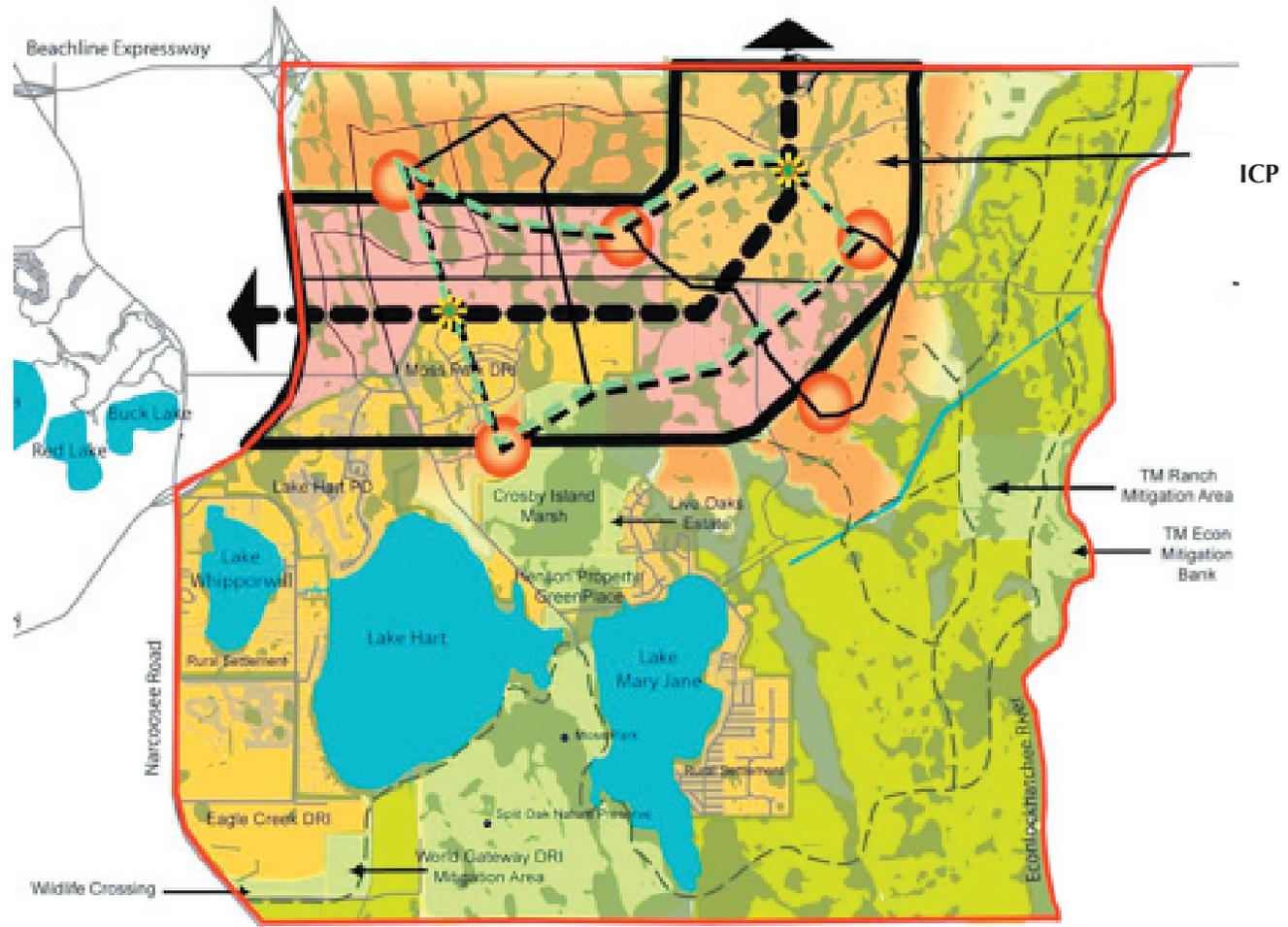
783,323 sq. ft.

Commercial/Office

2.3 million sq. ft.

High-tech

17.9 million sq. ft.





# Community Planning Collaborative 2005

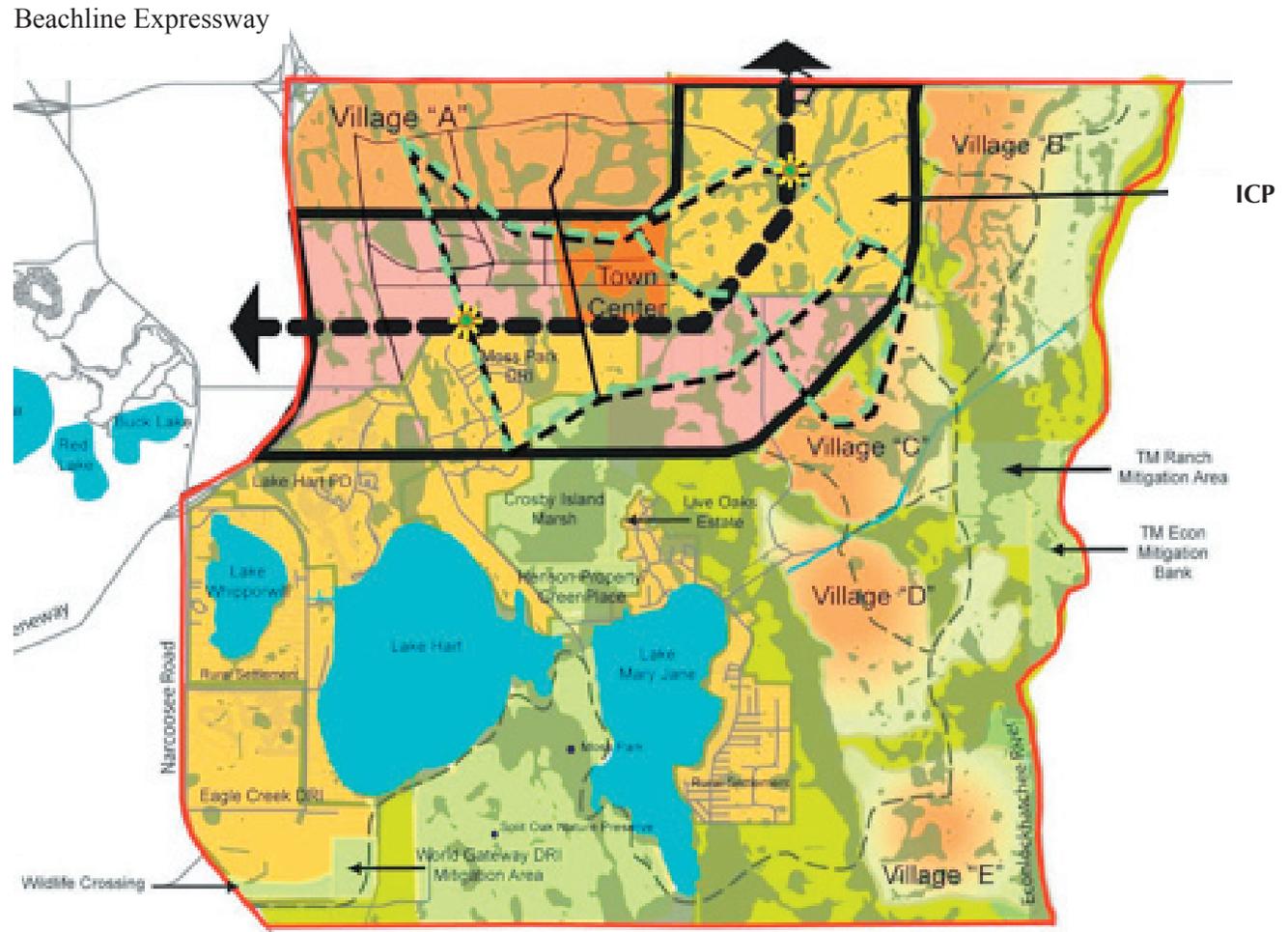
## Village

- Villages concentrate development away from environmentally sensitive lands
- Villages linked by trails to environmentally sensitive lands
- Villages connected to multimodal facility
- Enhanced buffers next to environmentally sensitive lands

## Land Use

Residential  
 Industrial  
 Commercial/Office  
 High-tech

29,515 units  
 892,223 sq. ft.  
 3.5 million sq. ft.  
 16.3 million sq. ft.





## Activity Village

- Combination of Edge and Village scenarios
- Village centers offer multimodal transportation options
- Villages and village centers concentrate development away from environmentally sensitive lands

### Land Use

Residential

37,547 units

Industrial

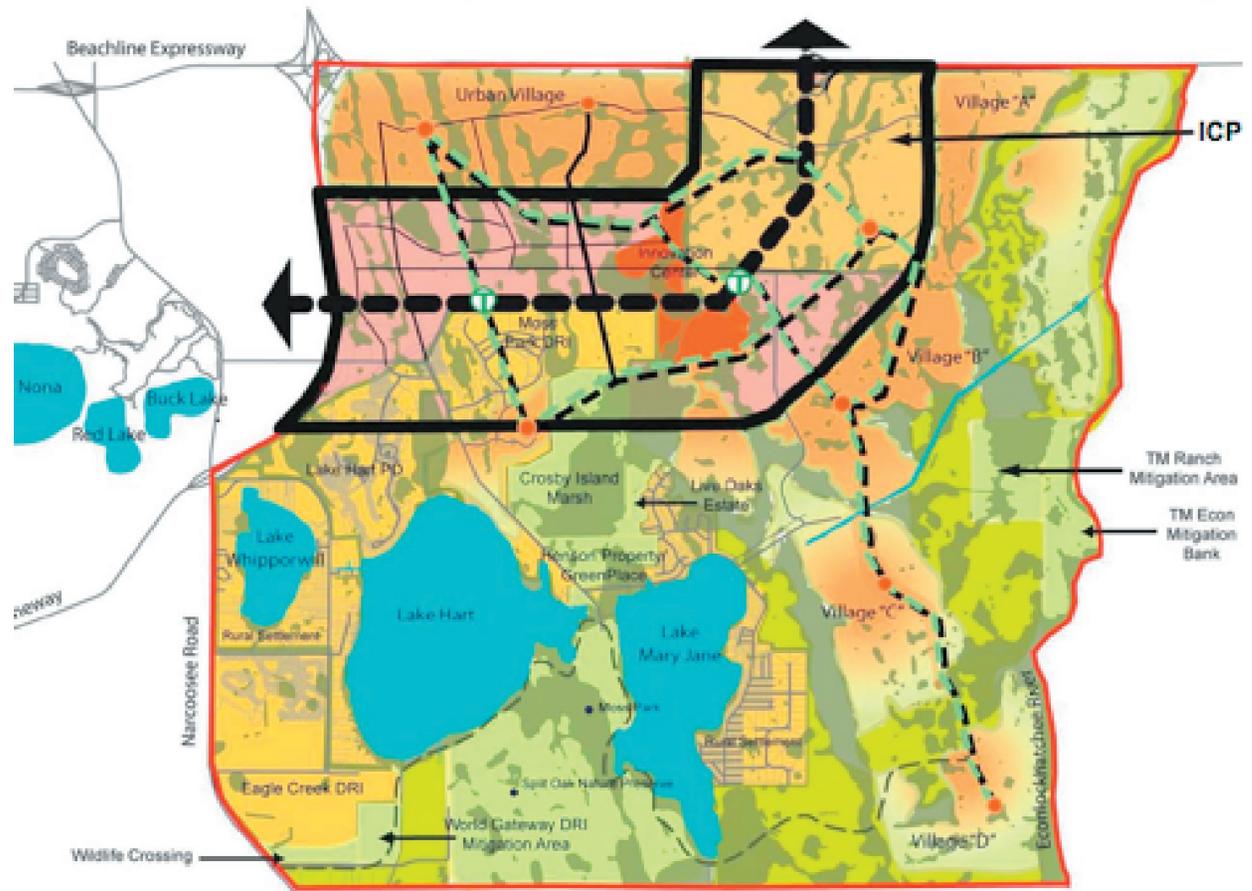
892,223 sq. ft.

Commercial/Office

3.5 million sq. ft.

High-tech

16.3 million sq. ft.





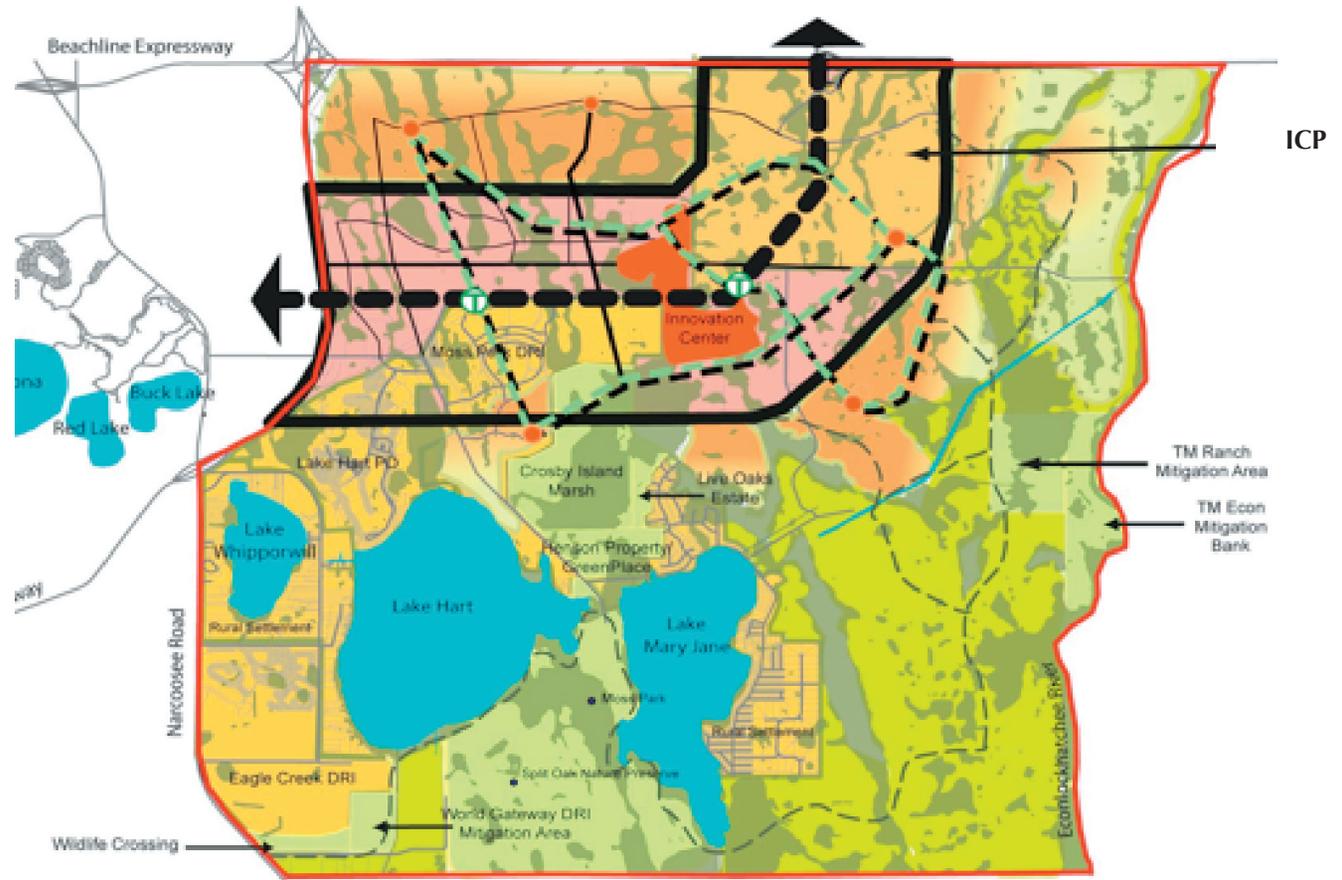
# Community Planning Collaborative 2005

## Compact Village

- Combination of Edge and Village scenarios with increased environmental connections on the south
- Increased open space and wildlife corridors
- Village centers offer multimodal transportation options

### Land Use\*

Residential	34,207 units
Industrial	892,223 sq. ft.
Commercial/Office	3.2 million sq. ft.
High-tech	16.3 million sq. ft.



*\*NOTE THIS SCENARIO HAS BEEN REVISED*



## Transit-Oriented Development (TOD)

The TOD scenario was created by the Renaissance Planning Group for discussion purposes in the community forum based on comments to create:

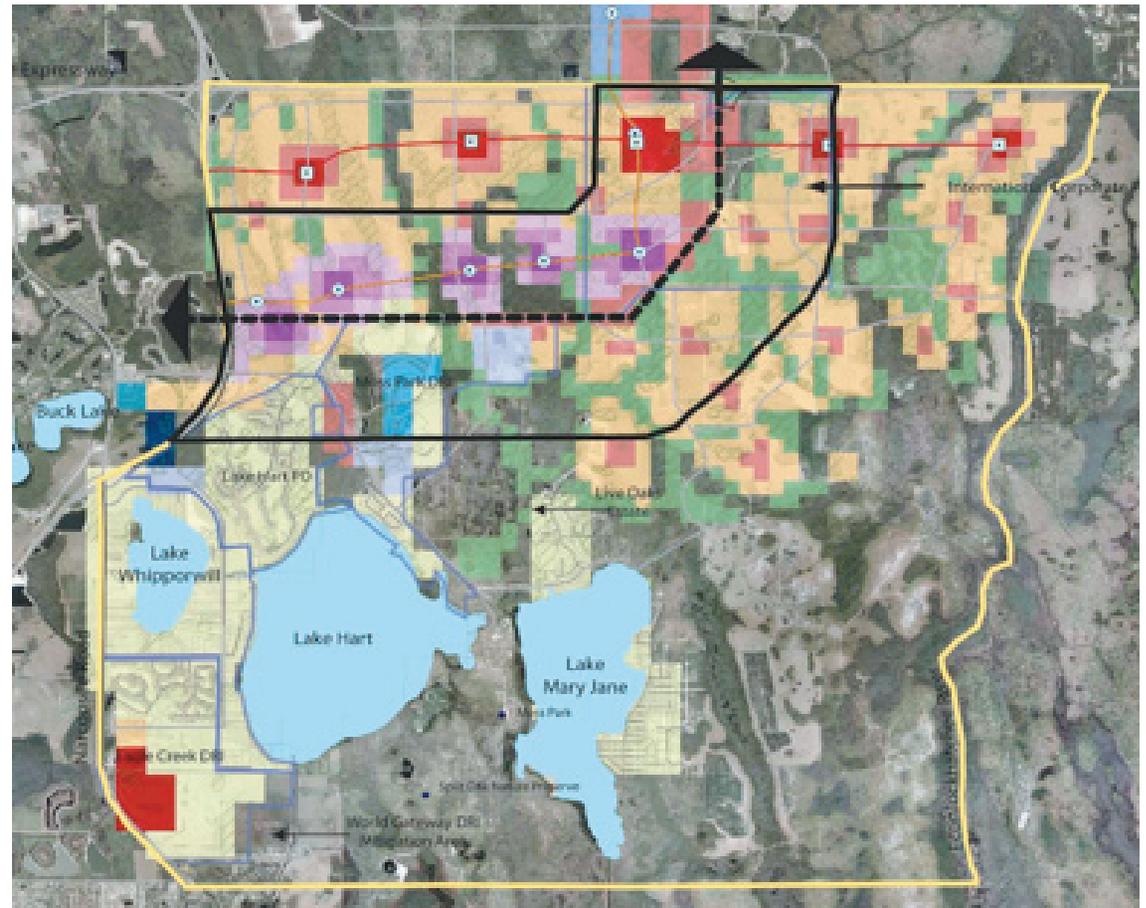
- Fixed-transit corridor in combination with Bus Rapid Transit added
- Villages and village centers concentrate development away from environmentally sensitive lands and focus on making transit viable
- Undeveloped land within existing DRIs considered in the mix

### Land Use

Residential	37,100 units
Industrial	2.5 million sq. ft.
Office	5.5 million sq. ft.
Commercial	4.2 million sq. ft.
High-tech	12.4 million sq. ft.
Government/Civic	5.3 million sq. ft.

### Jobs Created

Industrial	3,200
Office	15,000
Commercial	7,300
High-tech	31,500
Government/Civic	10,100





## Community Planning Collaborative 2005

### Hybrid Compact Village

The Hybrid Compact Village scenario was created by the Renaissance Planning Group for discussion purposes in the community forum based on comments to:

- Keep overall development program essentially the same as Compact Village but modify it to address other concerns
- Make environmental preservation a priority and integrate park land
- Incorporates light-rail transit development
- Create more accessible mixed use
- Ensure proximity to parks
- Include higher densities/intensities

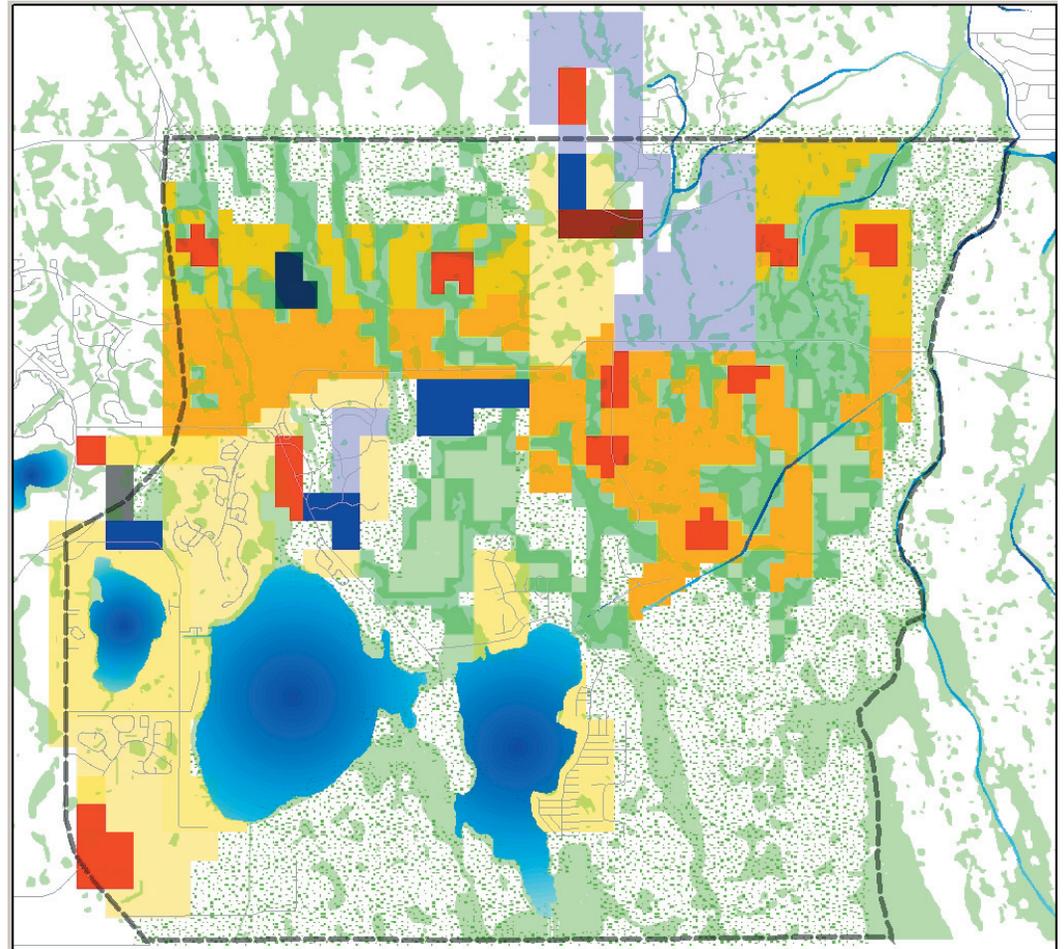
In order to address environmental protection more thoroughly, the FNAI created another layer of environmental considerations including wetland and watershed priority areas. (This layer can be viewed on page 23.)

### **Land Use**

Residential	37,300 units
Industrial	2.7 million sq. ft.
Office	6.0 million sq. ft.
Commercial	4.8 million sq. ft.
High-tech	13.5 million sq. ft.
Government/Civic	3.3 million sq. ft.

### **Jobs Created**

Industrial	3,400	Government/Civic	33,800
Office	16,100	High-tech	6,800
Commercial	8,700		



# Community Planning Collaborative 2005



The Current Trend scenario has the least incentives to preserve land and protect the environment and the highest number of residential units (64,072) and commercial and industrial development (see the land use table on page 19). There is not, however, an emphasis on high-tech development in this scenario. In contrast, the Village concept leads to more

concentrated development, lower overall growth, and the least number of residential units (29,515). The Village scenario will, however, allow for much higher high-tech development than the Current Trend (16.3 million square feet compared to 3.03 million square feet). The Activity Village scenario is very similar to the Village concept but increases the number

of residential units to 37,547 units and includes slightly higher commercial / office space.

The TOD scenario builds on the Village concept and strives to protect more land than the Current Trend but raises the number of residential units (37,100) and amount of land designated for industrial,

**Summary of Scenario Descriptions**

Current Trend	Compact Edge	Village	Activity Village	Compact Village	TOD	Hybrid Compact Village
<p>Fewer incentives to preserve land</p> <p>Less opportunity for interconnected park &amp; preservation system</p> <p>Currently adopted environmental buffers applied</p> <p>Residential development spread over the entire study area</p>	<p>Eastern 1/3 of study area not heavily impacted</p> <p>Interconnections of parks, preserved lands &amp; conservation areas</p> <p>Incentives to preserve land through credits for lands south and east of corridor</p> <p>Community district linked to parks and natural lands</p> <p>Enhanced buffers</p>	<p>Villages concentrate development away from environmentally sensitive lands</p> <p>Villages linked by trails to environmentally sensitive lands</p> <p>Villages connected to multitmodal facility</p> <p>Enhanced buffers next to environmentally sensitive land</p>	<p>Combination of Edge and Village</p> <p>Village centers offer multimodal transportation options</p> <p>Villages and village centers concentrate development away from environmentally sensitive lands</p>	<p>Combination of Compact Edge and Village with increased environmental connections on the south</p> <p>Increased open space and wildlife corridors</p> <p>Village centers offer multimodal transportation options</p>	<p>Fixed transit corridor in combination with Bus Rapid Transit</p> <p>Villages and village centers concentrate development away from environmentally sensitive lands and focus on making transit viable</p> <p>Undeveloped land within existing DRIs considered in the mix</p>	<p>Modified Compact Village and Village</p> <p>More environmental preservation and integration with park land</p> <p>Light-rail transit</p> <p>More accessible mixed use</p> <p>Increased proximity to parks</p> <p>Higher densities</p>



## Community Planning Collaborative 2005

commercial, office, and high-tech uses by increasing densities and considering DRIs in the mix. The square footage designated for industrial, commercial, office, and high-tech in the TOD scenario is also much higher than in the Village and Activity Village scenarios. For example, in the Village and Activity Village scenarios, only 892,223 square feet of space is allocated for industrial use while the TOD has 2.5 million square feet designated for industrial use.

The Village and Activity Village scenarios call for more high-tech development than the TOD scenario, however (16.3 million square feet compared to 12.4 million square feet for TOD development).

The Hybrid Compact Village scenario, created from public feedback on the other scenarios, represents a combination of the Compact Village and Village concepts. The amount of square footage allocated for development is slightly higher than in the TOD scenario in all categories except the

Government/Civic category, reflecting the increased density of this scenario. The number of jobs created (see Jobs Created table on page 20) reflects the amount of land and space designated in the Land Use table.

Land Use						
	Residential	Industrial	Commercial/ Office	Commercial	High Tech	Govt/Civic
Current Trend	64,072 units	10.5 million sq. ft.	10.1 million sq. ft.	NA	3.03 million sq. ft.	NA
Compact Edge	37,353 units	783,323 sq. ft.	2.3 million sq. ft.	NA	17.9 million sq. ft.	NA
Village	29,515 units	892,223 sq. ft.	3.5 million sq. ft.	NA	16.3 million sq. ft.	NA
Activity Village	37,547 units	892,223 sq. ft.	3.5 million sq. ft.	NA	16.3 million sq. ft.	NA
Compact Village	34,207 units	892,223 sq. ft.	3.2 million sq. ft.	NA	16.3 million sq. ft.	NA
TOD	37,100 units	2.5 million sq. ft.	5.5 million sq. ft. (office only)	4.2 million sq. ft.	12.4 million sq. ft.	5.3 million sq. ft.
Hybrid Compact Village	37,300 units	2.7 million sq. ft.	6.0 million sq. ft. (office only)	4.8 million sq. ft.	13.5 million sq. ft.	3.3 million sq. ft.



### **Jobs Created**

The Current Trend scenario will create the most jobs in every category but high-tech and govt/ civic, and the Compact Village scenario calls for the second highest number of jobs in all categories but has the most number of high-tech jobs. The Compact Edge has the least number of industrial and commercial/ office jobs but the second highest number of high-tech jobs. The Village and Activity Village scenarios have slightly more industrial and commercial/ office jobs than the Compact Edge but fewer high-tech jobs. The TOD and Hybrid Compact Village scenarios are second to the Current Trend in the number of commercial/ office jobs but create fewer high-tech jobs than any of the other scenarios except the Current Trend. In addition, the TOD and Hybrid Compact Village scenarios are the only ones to consider adding government and civic jobs to Innovation Way.



### Comparative Analysis of Innovation Way Scenarios

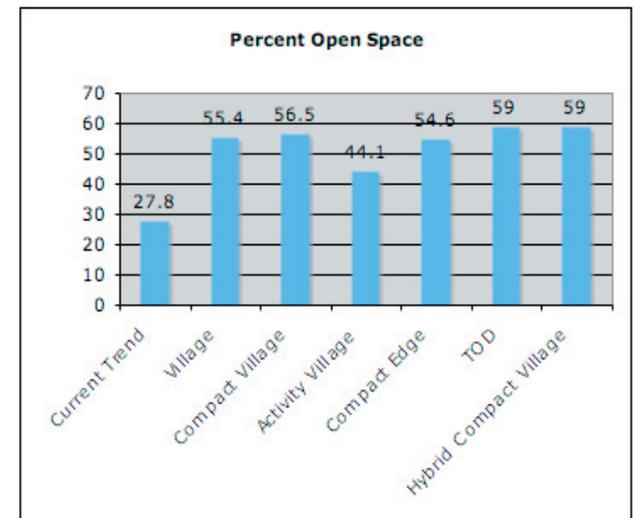
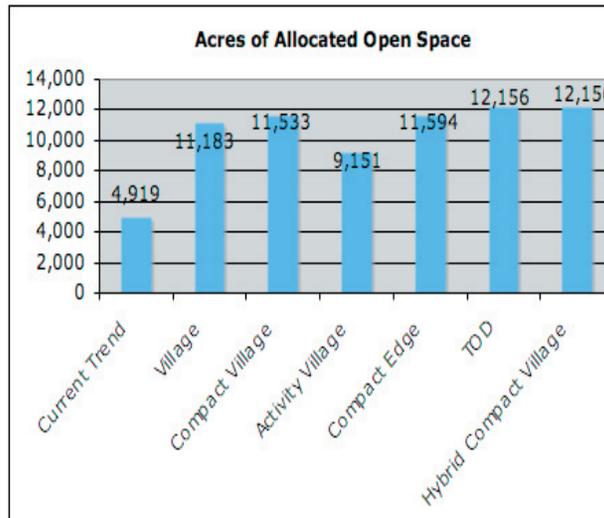
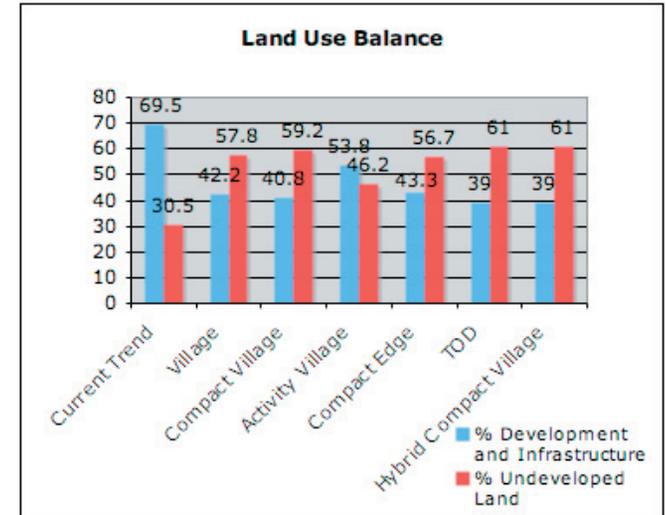
This section compares how all the scenarios presented previously performed when tested against the indicators. In addition, a discussion of the presentation and outcomes of the prototype village scenarios completes this section.

#### Indicator 1

*Land use balance - portion of land area dedicated to development and infrastructure versus open space*

As the Land Use Balance graph indicates, under current development conditions, the percentage of land developed (69.5%) will be significantly greater than in any of the other scenarios. The Activity Village, at 53.8 %, consumes the second largest percentage of land with development. The TOD and Hybrid Compact Village scenarios preserve the most amount of undeveloped land at 61%. The Compact Edge and Village scenarios have almost the same percentage of developed land and undeveloped land.

Both the Acres of Allocated Open Space and Percent Open Space charts support the Land Use Balance percentages. For example, the amount and percentage of open space estimated for each scenario corresponds directly to the amount of developed and undeveloped land indicated in the Land Use Balance graph.





## Indicator 2

*Jobs/housing balance - total jobs divided by total homes*

The table to the right shows how many jobs are available for each residential unit. Under Current Trend conditions, one job will be available for each residential unit, the lowest jobs/housing ratio of all the scenarios. The Compact Edge and Activity Village have the second lowest number of jobs per housing unit with close to 1 and a half jobs per residential unit (1.47 jobs per residential unit and .154 jobs per residential unit respectively). The rest of the scenarios indicate closer to two jobs per residential unit will be accommodated in the Innovation Way study area.

Jobs/Housing Balance

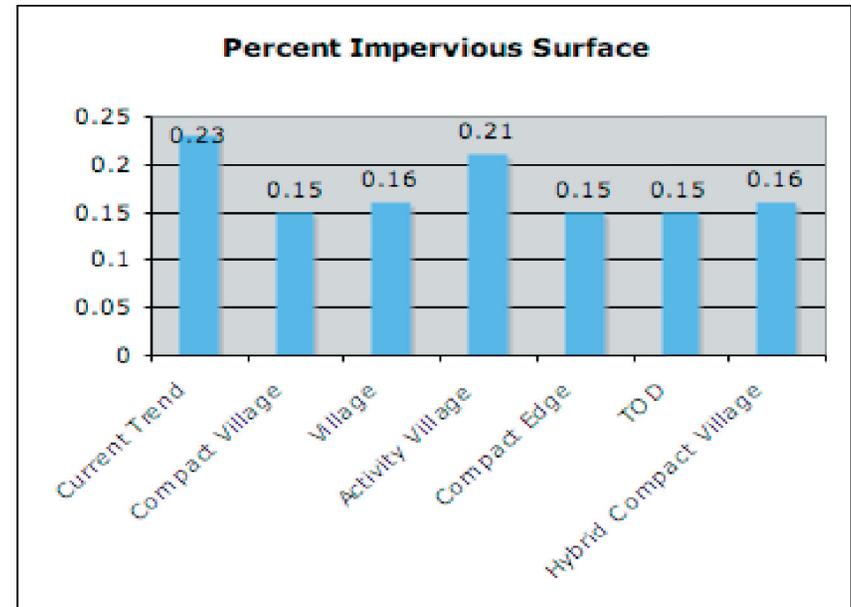
Current Trend	Compact Edge	Village	Activity Village	Compact Village	TOD	Hybrid Compact Village
1.00	1.47	1.87	1.54	1.83	1.81	1.84

## Indicators 3 and 4

*Water quality as affected by impervious vs. natural surfaces (indicator 3) Impacts to biodiversity and habitats by development scenario (indicator 4)*

The more impervious the surface, the higher the runoff and the more negative the impacts to habitats.

The bar graph to the right shows that the Current Trend and Activity Village scenarios would lead to the highest percentage of impervious surface area compared to the rest of the scenarios, which have either .15 or .16 percent impervious surface area. This is due to the fact that the more concentrated the development the less change to natural pervious surfaces.





### Indicators 3 and 4 continued

The Florida Natural Areas Inventory used the NatureServe Vista tool to identify areas within the Innovation Way study area that have value for natural resources, particularly rare species habitat. Based on that identification, the maps generated by FNAI (See Appendix C) identify areas of incompatibility between proposed land use scenarios and the geographic distribution of natural resources.

As mentioned previously in the description of the Hybrid Compact Village, this scenario included a wetlands and watershed analysis not completed for the other scenarios. The map to the right shows these natural resource values identified by the public at the Thursday night meeting (particularly the river in the northeast corner of the study area).

The Percent of Goal table on page 24 summarizes the results of how each scenario met the proportion of a species' habitat that is compatible with the proposed land use. (FNAI used species rarity as defined by the NatureServe Global Rank to determine the goal for each species they determined to exist in the study area.) Some species receive a score higher than 100% because that scenario maintains a larger amount of the species' habitat in

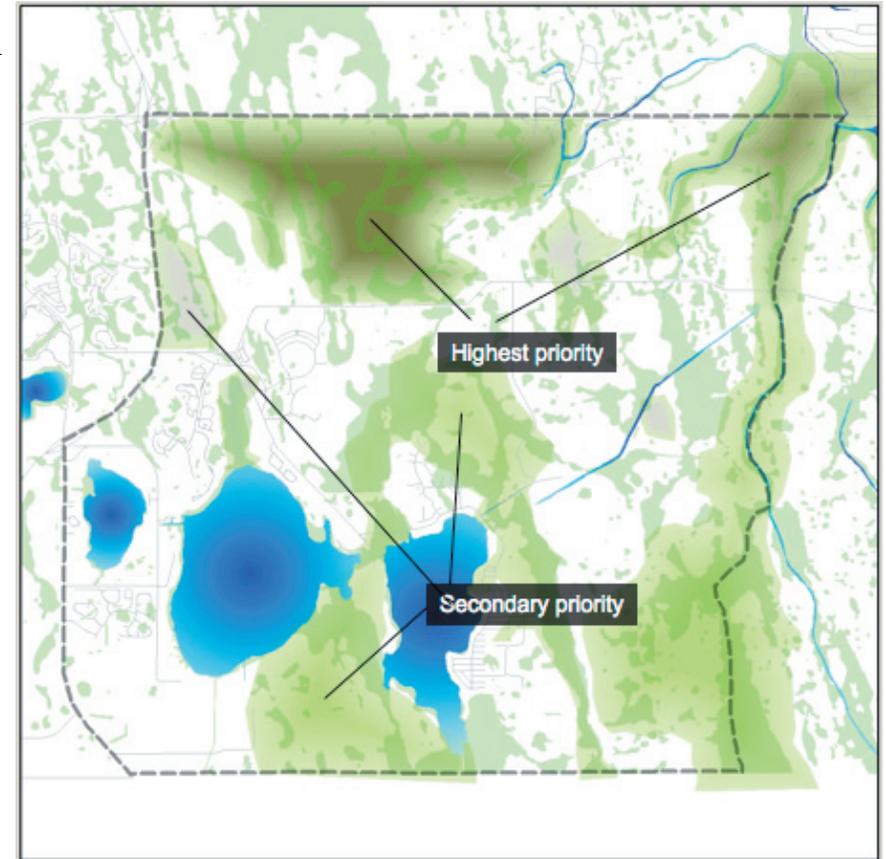
compatible land uses than specified by the goal.

The Current Trend scenario analysis indicates the most potential negative impacts to biodiversity and habitats.

The Hybrid Compact Village scenario was, by far, the best-performing scenario with the TOD and Village scenarios closely tied for second.

A more regional analysis would better identify patterns of habitat value and connectivity, and uplands should be recognized as valuable habitat in addition to wetlands.

(Note: Compact Edge and Activity Village were not included in this analysis.)



## Community Planning Collaborative 2005



Elements	Percent of Goal				
	Current Trend	Village	Compact Village	TOD	Hybrid Compact Village
scrub	42	59	64	64	83
sandhill	45	68	61	53	104
gopher frog	166	166	166	166	124
red-cockaded woodpecker	17	49	51	65	91
celestial lily	68	93	66	83	81
wood stork	69	85	85	94	222
bald eagle	147	169	169	169	212
Florida sandhill crane	14	15	30	29	86
flatwoods	41	101	82	103	133
eastern indigo snake	0	0	0	0	70
wetlands					211
watershed priority 1					112
watershed priority 2					91
watershed priority 3					155
watershed priority 4-6					195
<b>Average performance</b>	61	80	77	82	123
<b>Index of best performance</b>	0	2	1	4	9

Note: Elements are those tracked by FNAI that are known to occur in the study area. Wetlands were identified from the National Wetlands Inventory wetlands. Watersheds is a prioritized model we developed for the FL Forever program that identifies areas that contribute runoff to high-quality surface waters and floodplains in the state.



# Community Planning Collaborative 2005

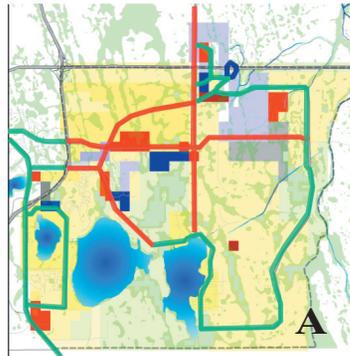
## Indicator 5

*Transportation balance – availability of options and percentage of trips by mode (automobile, walk/bike, transit)*

In preparation of the public meeting, four scenarios (Current Trend, Village, Compact Village, and TOD) were used to study how developing Innovation Way may impact the types of roads and number of cars.

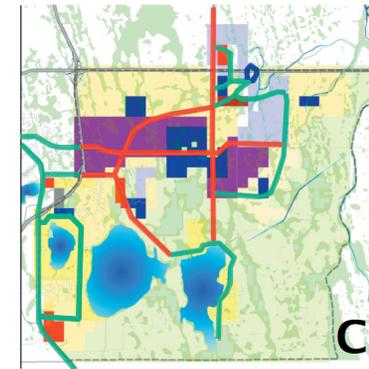
The Current Trend would likely lead to the most vehicles per day (35,000 to 62,000) and the most congestion, while the TOD scenario would lead to the least vehicles per day (22,000 to 34,000) and least congestion. The Village and Compact Village scenarios fall somewhere in between with an estimated 32,000-51,000 vehicles per day. All the scenarios but the TOD will likely necessitate eight lanes. The TOD scenario will require more interconnected streets but fewer lanes.

### Current Trend



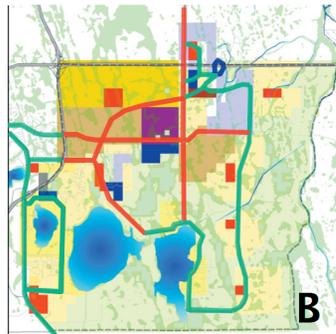
- Arterial concept
- 35,000 to 62,000 vehicles per day on Innovation Way
- Will likely need to be eight lanes

### Compact Village



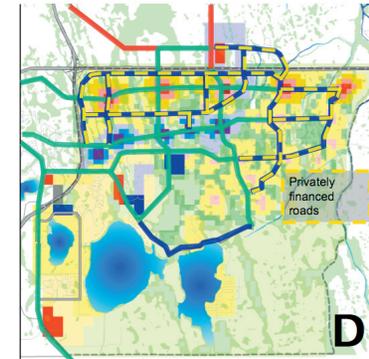
- Arterial concept
- 32,000 to 51,000 vehicles per day on Innovation Way
- Will likely need to be eight lanes

### Village



- Arterial concept
- 32,000 to 51,000 vehicles per day on Innovation Way
- Will likely need to be eight lanes

### Transit Oriented Development



- Interconnected network
- More streets, fewer lanes
- 22,000 to 34,000 vehicles per day on Innovation Way

#### Legend

- Six lanes
- Four lanes
- Two lanes



**Indicator 5 continued**  
*Transportation balance – availability of options and percentage of trips by mode (automobile, walk/bike, transit)*

After the Current Trend scenario, the Compact Village and Activity Village scenarios indicate they would require the most trips and least use of non-vehicle trips. The Compact Edge and Village scenarios fall somewhere in the middle.

The table to the right shows the vehicle miles per day, car trips per day, and non-vehicle trips per day for each scenario.

As expected, the more concentrated the development, such as in the TOD and Hybrid Compact Village scenarios, the fewer the car trips and the greater the use of walking and biking for transportation. This also reflects the fact that these two scenarios have the highest percentage of homes within 1/4 mile of commercial land as discussed on page 28.

Under the Current Trend scenario, there are significantly more, almost double, vehicle miles traveled than in any other potential scenario. Conversely, the number of non-vehicle trips, such as walking and biking, is also significantly lower than in any other scenario. In fact, the number of expected walking and biking trips in the TOD and Hybrid Compact Village scenarios is about six times greater than the Current Trend scenario.

	Vehicle Miles Traveled per Day	Car Trips per Day	Non Vehicle Trips per Day	
			Walking Trips per Day	Bike Trips per Day
Current Trend	6,120,758	625,844	2,503	6,257
Village	3,717,758	380,139	4,146	10,366
Compact Village	4,028,047	411,866	3,579	8,992
Compact Edge	3,868,169	395,518	3,371	8,504
Activity Village	4,024,716	411,525	4,192	10,954
TOD	3,312,676	338,719	12,772	31,900
Hybrid Compact Village	3,312,676	338,719	12,772	31,930



## Indicator 5 continued

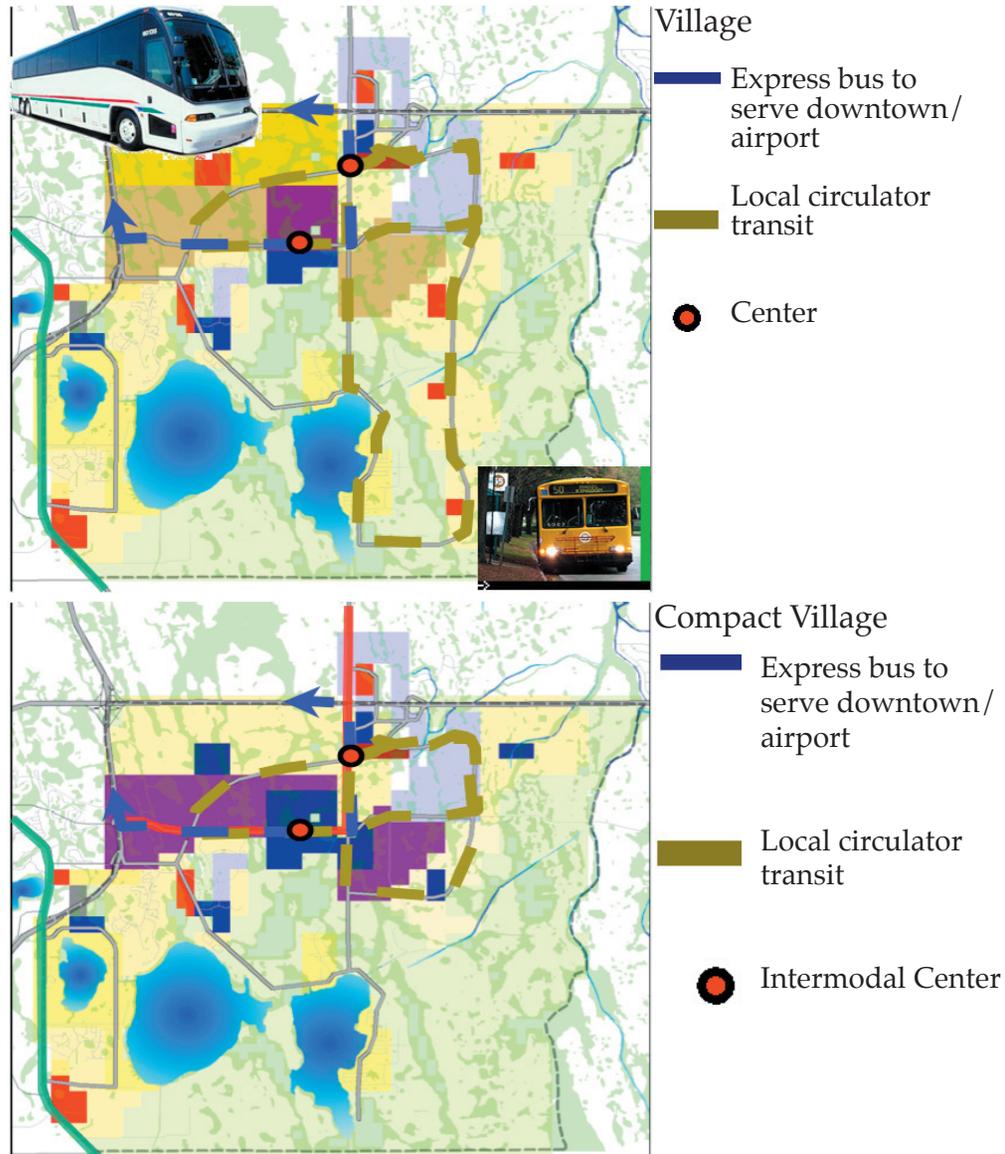
### Transportation balance – Exploring Transit System Options

Three of the scenarios (also see page 29) were created with different transit systems in order to explore transit system options.

The Village scenario shows a bus transit system with regional and local circulators.

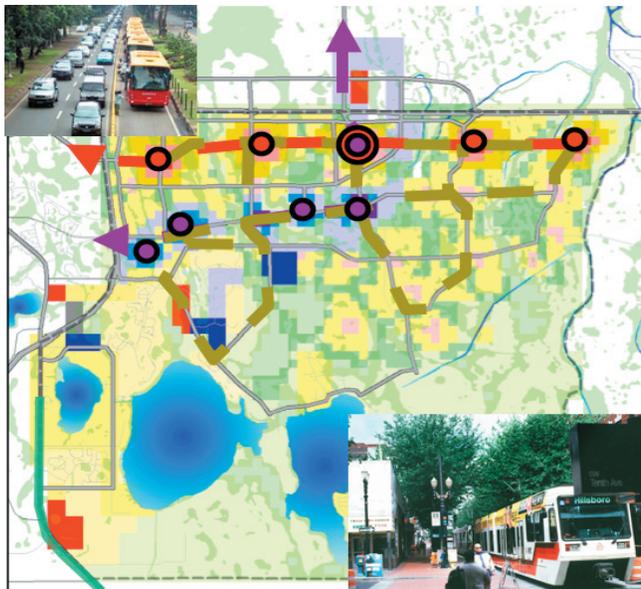
The Compact Village scenario has a similar system to the Village but is concentrated more in the Innovation Way area.

Light-rail was incorporated into the TOD scenario in order to demonstrate the option of light-rail going across Innovation Way.





**Indicator 5 continued**  
*Transportation balance – Exploring Transit System Options*



Transit-Oriented Development

-  Busway along Innovation Way
-  Bus Station
-  Light-rail to airport and downtown/IDrive
-  Light-rail station
-  Local circulator transit



## Community Planning Collaborative 2005

### Indicator 6

*Proximity - percentage of homes within walking distance of shopping, employment, and transit*

There are many more dwelling units in the Current Trend scenario than any other, but there is a much lower percentage of homes close to employment centers or shopping. Only 7% of Current Trend homes are close to employment centers compared to the TOD scenario with 65% and the Hybrid Compact Village scenario

with 32%. Similarly, only 15% homes in the Current Trend option are close to shopping compared to the TOD scenario that has 65% the Hybrid Compact Village scenario that has 32%.

None of the other scenarios indicate many homes near employment centers but have between 15% and 27% of homes within 1/4 mile of shopping.

The Current Trend scenario did not

consider regional or local transit. Of the remaining scenarios, the TOD option has significantly more homes within 1/4 mile of regional or local transit than any other scenario (32% and 53% respectively). The Village, Compact Village, and Hybrid Compact Village scenarios have the second highest number homes close to local transit but few near regional transit.

	<b>Proximity Homes Within 1/4 Mile Of:</b>								
	Total Dwelling Units	Regional Transit		Local Transit		Employment Centers		Shopping	
Current Trend	61,900	0	0%	0	0%	4,600	7%	9,100	15%
Compact Edge Village	39,600	700	2%	8,900	22%	1,800	5%	7,700	19%
Activity Village	38,800	500	1%	11,300	29%	1,800	5%	10,100	26%
Compact Village	41,500	700	2%	1,300	31%	1,800	4%	11,000	27%
TOD	38,900	600	2%	1,000	26%	1,900	5%	9,000	23%
Hybrid Compact Village	41,300	13,200	32%	21,800	53%	21,800	53%	26,850	65%
	37,300	3,100	2%	10,400	28%	11,900	32%	11,800	32%

Employment centers include at least 200 employees. Shopping includes at least 10,000 sq. ft. of commercial space.



## Indicator 7

### Fiscal Impacts of Scenarios

#### Life Cycle Costs of Infrastructure and Community Services

The table to the right shows the comparison of the life cycle cost of infrastructure over a 20-year period for all but the TOD scenario. Life Cycle cost of infrastructure includes surface and subsurface infrastructure and public buildings. For each category of expenditure the calculation of life cycle costing included capital, replacement, operating, and maintenance costs.

The scenario with the highest life cycle is the Current Trend scenario. The Hybrid Compact Village scenario has the lowest infrastructure costs. The Village, Compact Village, and Active Village are approximately the same. A comparison of the high Current Trend scenario and the lower-cost Hybrid Compact Village scenario shows that the population for the Current Trend is 151,885 while the population for the Hybrid Compact Village design is 99,021.

Since the cost of delivering community services is driven by population, the life cycle cost of the Hybrid Compact Village design is lower. A major contributor to expenses is linear infrastructure. The study area for the Current Trend scenario

is 26,899 acres while the study area for the Hybrid Compact Village design is 22,294 acres.

The additional 4,600 acres in the Current Trend scenario requires more roads, sanitary sewers, water lines, sidewalks, and street lighting to support the population.

#### Life Cycle Costs

Service Component	Study Area Capital Costs	Replacement Costs	Operating & Maintenance
Conservation and Flood Control	0	0	1,256,592,724
Fire Control	40,488,270	15,648,464	1,986,870,125
Fleet Vehicles	48,114,596	58,598,999	1,655,611,880
Garbage Solid Waste	0	0	1,099,790,567
General Government - Legislative	68,907,247	1,758,514	4,544,341,380
Interchanges	76,500,000	10,347,427	46,797,278
Judicial/Court/Detention	70,835,328	1,850,937	2,968,012,099
Law Enforcement	84,747,609	8,157,631	4,990,984,356
Medical Examiner	0	0	240,102,875
Recreation & Cultural	162,035,000	25,737,844	3,486,940,698
Recreation Lands	29,980,000	760,333	687,736,476
Roads	734,579,051	283,479,130	15,399,308,794
Sanitar Sewers	0	24,304,107	37,116,710
Traffic Signals	102,042,500	12,976,643	501,608,329
Transit	33,213,000	18,814,781	1,863,793,378
Transit - Buses	6,750,000	3,272,717	361,302,518
Water Distribution	0	18,212,811	772,942,391
<b>Total</b>	<b>1,458,192,602</b>	<b>483,920,343</b>	<b>41,899,832,387</b>

Current Trend	\$11,103,309,015
Village	\$8,438,695,810
Compact Village	\$8,463,375,427
Hybrid Compact Village	\$6,779,335,131
Compact Edge	\$7,201,276,387
Activity Village	\$8,231,105,527



## Indicator 7 continued

### Net Loss/Net Gain

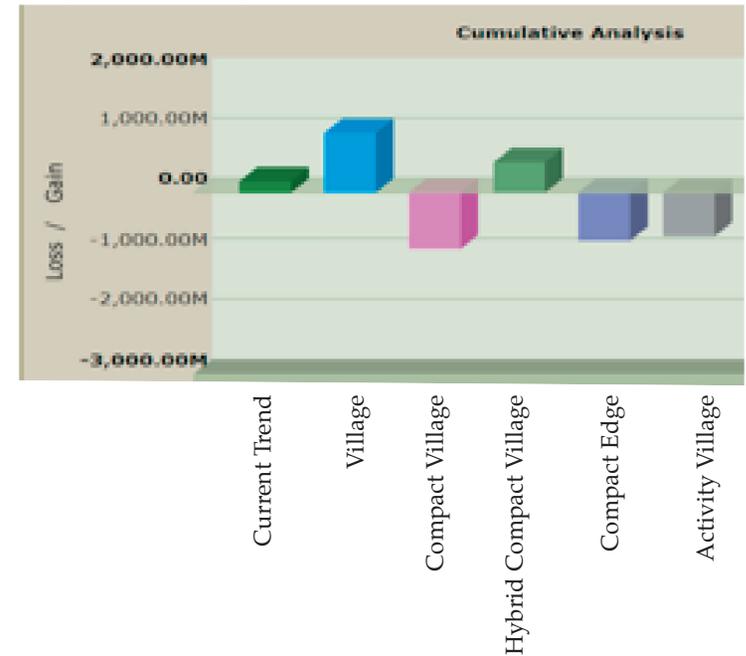
The chart to the right shows the net loss / gain for all scenarios but the TOD. The Village scenario produces the highest net gain while the Compact Village produces the largest net loss. Both scenarios have approximately the same land area. The Village scenario has 22,730 acres and the Compact Village scenario has 22,556 acres.

There are two major factors influencing the Net Loss and Net Gain, which are revenues generated from higher-density residual uses and the amount of commercial space and the Floor Area Ratio (FAR). In the Compact Village scenario there is a higher percentage of higher density units such as apartments and attached dwellings. The assessment values for these types of units are almost half the value of larger single-family homes. There is a similar issue on the commercial land side. Major factors contributing to revenues generated from commercial uses are the amount of floor space, type of commercial use, and the Floor Area Ratio (FAR). The Compact Village scenario has 14 million square feet less commercial space than in the Village scenario resulting in an overall reduction in

revenues.

To improve the fiscal performance of the Compact Village scenario, a review of the assessment values for higher-density units in this location may increase revenues from residential units. Since the concept of the Compact Village is based in part on an increase in residential densities, it should follow that consideration be given to increasing commercial FAR and increasing revenues from commercial uses.

Net Loss Net Gain





## Indicator 7 continued

### Cost and Revenues per Residential Unit

Land uses such as environmental, public open space and institutional uses generate costs. These costs are associated with residential units and are not allocated to commercial uses.

The cost of services to the County per residential unit for the Village scenario is higher than the other scenarios because there is less revenue from commercial uses to offset cost of services. On the other hand, the Hybrid Compact Village scenario has less land allocated to public uses so this scenario has the lowest cost per residential unit.

The assessment rate for residential uses is based on the quality of the unit– the higher the quality the higher the assessment value. A higher market value then results in a higher assessment value used to calculate tax revenue.

The lowest revenue per residential unit is in the Compact Edge scenario, primarily because of the type of residential unit chosen for the study area is assessed at a lower value than the other scenarios.

The highest revenue generated per residential unit is in the Activity Village

scenario, which has overall a higher assessment value per residential unit than the other scenarios.

Costs and Revenues per Residential Unit		
	Revenue per residential unit	Cost per residential unit
Current Trend	\$118,457.09	\$155,046.13
Village	\$119,760.65	\$192,041.00
Compact Village	\$117,594.56	\$174,411.59
Hybrid Compact Village	\$117,525.45	\$143,881.17
Compact Edge	\$103,849.59	\$160,382.11
Activity Village	\$123,744.56	\$172,740.32



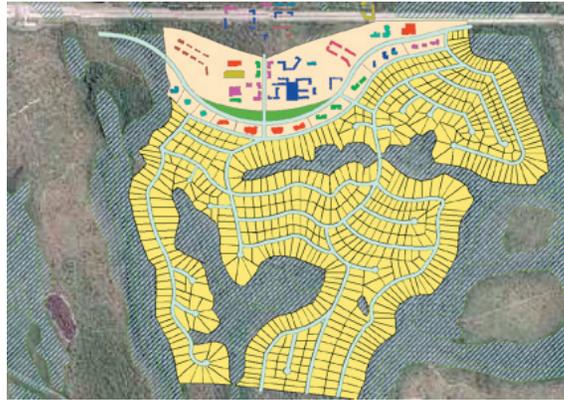
### Neighborhood Village Center Prototypes and Comparative Analysis

Several scenarios included the concept of a compact village and/or neighborhood village. In order to conceptualize what a compact village might look like, PlaceMatters and tool providers created two prototype villages: a Business as Usual scenario and a Transit-Oriented Development scenario. Transect and visualization tools were used to help the public understand and explore different densities and land use patterns.

#### Transect Theory

Transects help show how density can change from urban areas to rural areas. In a conventional development scenario, the change in density between the urban and rural areas is not that great, but in a compact development scenario, for example, there is a dramatic change in density from the urban centers to the rural edge.

This transect image shows how high to low density looks in the landscape.



#### Business as Usual

- Preserve character of area in terms of the type of housing, and density of housing
- Minimize conflicts between residential and nonresidential uses
- Take advantage of highway for commercial development
- Build what the market is used to

#### Transit-Oriented Development

- Higher densities around transit stops
- Mixed-use and multifamily surrounding transit stops to increase ridership
- Environmentally sensitive areas are avoided

Visualization tools helped the public gain a common understanding of what alternative design concepts will look like in the real world.





## Neighborhood Village Prototypes A Comparative Analysis

The table to the right shows a comparative analysis of how the two prototype villages compare when tested against the indicators.

The TOD is a high-density scenario that allows for more than twice the population of the Business as Usual (BAU) scenario in half the developable area. In addition, the TOD scenario includes significantly more non residential square footage to support more jobs. Because the TOD high density scenario is supported by transit, residents would be able to walk or take transit to their jobs or shopping opportunities as well as enjoy significantly more open space.

The TOD scenario calls for almost twice the lane miles of roads because of the grid pattern of the roads and a blocks created to be at a walkable scale.

The fiscal impacts of these two prototypes are shown on the next page.

INDICATOR	Business as Usual	TOD
<b>Land Use Balance</b>		
Total developed Acres	479.4	251.4
Total dwelling Units	809	1,909
Total Population	2,080	4,416
Total non-residential sq. footage	2,282,180	2,561,172
Total Jobs	6,542	8,141
Open space (acres)	325.6	552.6
Tree canopy (acres)	244.9	244.0
Park count	3	4
Park acres	6.1	5.2
<b>Jobs/Housing Balance</b>	8.08	4.26
<b>Water Quality</b>		
Impervious surface (acres)	301.8	304.0
<b>Impacts to Biodiversity and Habitats</b>	NA	NA
<b>Transportation Balance</b>		
Lane miles road	60,821	128,540
Options and % trip by mode	NA	NA
<b>Proximity</b>		
Homes less than 1/4 mile to transit	441	1654
Percent walkable residences	54.6%	86.6%
Total commercial/civic buildings within 1/4 mile	0.0	71.0
Walkable homes to transit	0.0	937.3



# Community Planning Collaborative 2005

## Fiscal Impacts of Village Prototypes

To the right is a comparison of the Business as Usual (BAU) and Transit-Oriented (TOD) scenarios for the village prototypes. The total life cycle cost of the Business as Usual scenario is higher than the Transit-Oriented Development. This is, in part, because the BAU uses twice the land area of the TOD scenario.

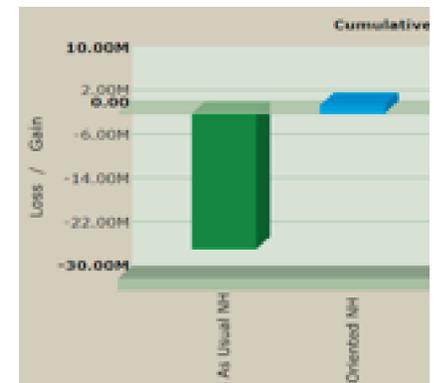
The chart below shows the comparison of the net loss and net gain of these two scenarios. While the Business as Usual scenario reflects a significant overall net loss, the TOD scenario suggests a net gain. This is because, as described on page 30, the TOD scenario has revenues generated from higher-density residential uses and a higher amount of commercial space and Floor Area Ratio.

## Life Cycle Costs

Dollars (\$)

Conservation and Flood Control	0	0	7,687,852	7,687,852
Fire Control	260,020	103,547	8,534,546	8,898,114
Fleet Vehicles	291,300	354,775	10,023,564	10,669,639
Garbage Solid Waste	0	0	5,027,718	5,027,718
General Government - Legislative	461,341	16,777	26,340,054	26,818,173
Judicial/Court/Detention	473,046	15,180	17,876,858	18,365,085
Law Enforcement	522,151	58,804	30,412,358	30,993,315
Medical Examiner	0	0	1,665,983	1,665,983
Recreation & Cultural	1,761,450	186,527	34,231,528	36,179,505
Recreation Lands	113,000	2,865	2,592,202	2,708,068
Roads	0	951,868	97,551,680	98,503,548
Sanitar Sewers	0	243,018	371,132	614,150
Traffic Signals	1,102,500	139,966	5,419,537	6,662,003
Transit	270,000	142,545	15,736,731	16,149,277
Water Distribution	0	185,224	7,860,841	8,046,066
<b>Total</b>	<b>5,294,810</b>	<b>2,401,101</b>	<b>271,332,596</b>	<b>278,988,503</b>
Business As Usual NH			206,608,585	
Transit Oriented NH Center			132,502,226	

## Net Gain/Net Loss





## E. Neighborhood Village Prototypes Final Concepts

The goal of one of the hands-on workshops on Saturday, October 29, was to develop design concepts and guidelines for a village center using interactive digital 3D modeling to inform the process and to illustrate the results.

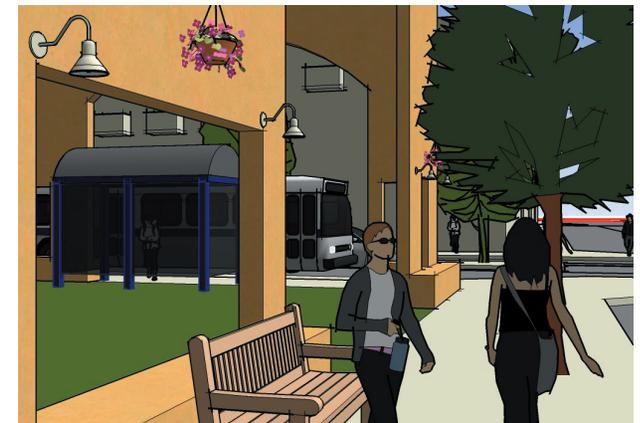
Participants were challenged to create a place that “feels” appropriate for a village center. As participants began to generate concepts and specific elements, Winston Associates staff drew them in 3D so that everyone understood how that particular element fit with the other concepts. After the work session, Winston Associates’ staff made minor refinements to the concepts by articulating buildings, creating more detail roof forms, and cleaning up the model.

Initial conversations included the recommendation to put light-rail through the community, but after this concept was presented to the larger group, most of the feedback was that light-rail was too far in the future and bus rapid transit was either a more feasible substitute or an appropriate intermediate step.

The images to the right show a village center with a transit bus line and important design features suggested by the group.



Note the bus right-of-way, a tree-lined boulevard, natural areas connected through the urban area, and large pedestrian sidewalks.





## Community Planning Collaborative 2005

### SCENARIO PUBLIC MEETING AGENDA

*WELCOME*

*KEYPAD POLL: WHO'S IN THE ROOM?*

*OVERVIEW OF THE PROCESS*

*THE REGIONAL CONTEXT*

*OVERVIEW OF THE FIVE SCENARIOS*

*INTRODUCING INDICATORS*

*KEYPAD POLL: INDICATORS*

*SMALL GROUP ACTIVITIES*

*MAPPING EXERCISE:*

*TRANSIT-ORIENTED DEVELOPMENT  
SCENARIO*

*REVIEW AND DISCUSS:*

*COMPACT VILLAGE SCENARIO*

*KEYPAD POLL: LAND USE DILEMMAS*

*RESULTS AND NEXT STEPS*

### F. Public Feedback/Results From the CPC Summit Public Meetings

This section shows the results of the first mapping exercise at the Thursday, October 27, public meeting where participants worked in breakout groups with a large map of the Transit-Oriented Development and Compact Village scenarios to identify strong and weak elements of each.

#### Results of Discussions About the Transit-Oriented Development Scenario

The comments on the strong and weak elements can be grouped into seven basic categories:

1. Connectivity
2. Density
3. Environmental Conservation and Parks
4. Location of Development
5. Mixed Use
6. Town Center
7. Transit

A summary of comments for each category is provided below. These comments provide a sense of the values of the participants at the Scenario Workshop and helped to inform how tool providers and others could refine a scenario that meets the vision and values of the community.

#### Connectivity

All comments about connectivity in the scenario cited weak elements. According to these comments, there is limited connectivity to the coast, to the airport, to town centers, to Orlando, to transit, and the DRIs. There was also concern expressed about the connectivity of natural/conservation areas to one another and to communities.

#### Density

The comments on density cited both weak and strong elements. A strong aspect is the density along the transit line. Concerns about density cited traffic impacts and too much density in habitat areas. The desire to maintain current density was also expressed.





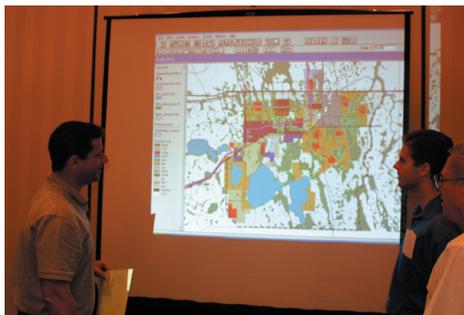
## Conservation and Parks

There is clear concern among participants about environmental conservation, parks, and greenspace. These items received the highest number of both strong and weak citations. Participants like having parks and preserved areas that are continuous, accessible to the public, preserve the Econ River, and preserve greenspace and habitat. There was the suggestion that higher-intensity development in designated areas can contribute to preserving land.

## Location of Development

Participants felt that location of higher-density residential around buses/transit was good. They also felt it was good to locate development near existing development and infrastructure.

There were concerns that land adjacent to the study area would experience development pressure, that the suitable land for development was excluded on the plan, that retail should be sited along the transit line, and that industrial



areas were too close to residential.

Objections about the positioning of industry may reflect concerns about the potential type of industrial development that may ultimately occur in the region. Some of the other concerns expressed include the location of development across the Econ River and proximity of development to lakes and other environmentally sensitive areas, which could be harmful to environmental quality and species diversity.

## Mixed Use

The comments about mixed use were generally positive. The participants liked the mixed-use corridor and the mixed uses near light-rail, and expressed a need for sensitivity to the intensity of use and density.

## Town Center

All the comments about town centers were positive. They like the transit orientation and its relationship to the town centers. There was also a comment that a town center was in a good location.

## Transit

Transit received a fair number of comments. Participants liked the corridor with the density around the transit nodes,

the conservation of habitat, and the location of jobs and housing near each other. Some felt it was the strongest aspect of the scenario. There were concerns that light-rail might not be cost-effective, that it could be incompatible with some adjacent uses, and that it does not extend to the airport.



### MEETING PARTICIPATION

*THERE WERE APPROXIMATELY 45 LOCAL PARTICIPANTS, 31 OF WHOM PARTICIPATED IN THE ELECTRONIC POLLING ACTIVITIES. THERE WERE 35 NATIONAL PARTICIPANTS WHO JOINED IN THE POLLING. OF THE LOCAL PARTICIPANTS, APPROXIMATELY 13 PERCENT LIVED IN THE STUDY AREA AND 17 PERCENT OWNED PROPERTY IN THE STUDY AREA. NEARLY 60 PERCENT OF PARTICIPANTS WERE BETWEEN 40 AND 59 YEARS OF AGE; 38 PERCENT WERE BETWEEN 20 AND 39. NINETY PERCENT WERE WHITE/CAUCASIAN. OVER 60 PERCENT CHARACTERIZED THEIR COMMUNITY AS SUBURBAN. THE REMAINDER WAS SPLIT EQUALLY BETWEEN RURAL AND URBAN. THIRTY-EIGHT PERCENT OF PARTICIPANTS WERE IN BUSINESS, 14 PERCENT WERE IN NOT-FOR-PROFIT PROFESSIONS, AND 21 PERCENT WERE LISTED AS OTHER. THE PARTICIPANTS WERE WELL EDUCATED WITH 87 PERCENT HOLDING UNIVERSITY DEGREES OR HIGHER.*

### Results Discussion About the Compact Village Scenario

The topics covered during the participants' discussion included:

1. Connectivity
2. Density
3. Economic Concerns
4. Environmental Conservation and Parks
5. Location of Development
6. Mixed Use
7. Process
8. Town Center
9. Transit
10. Transportation (Automobile)

### Connectivity

There were many comments about connectivity. Participants felt the plan does not address connectivity throughout the study area, such as the southwest sector, or connectivity to the larger region. On the other hand, participants liked that the land uses seem to be connected to each other. They like the connectivity to the shuttle route, as well as the connectivity of outer development to the new town center.

### Density

There were concerns whether there was a realistic density to support transit, and conversely, whether there was enough transit to support the density. There was also a concern whether there was adequate housing for the projected number of jobs. There were social concerns that dense development might compromise a sense of community/security and that there could be social service implications resulting from having so many people in close proximity. On the positive side, participants noted that the density supports open space and can be more cost-effective.

### Economic Concerns

The comments related to the economic impacts of the scenario were generally positive. Participants noted that





concentrated development is more cost-effective for developers, and the creation of high-tech jobs would be good for the community. However, participants felt private property rights have not been addressed in the scenario. Concerns were expressed about tax revenue versus expenditures on higher-density development; there is a perception that it is costlier. Over dependence on high-tech jobs is also a concern.

### **Environmental Conservation and Parks**

The amount, location, and continuity of preserved open space was often cited as a strong element of the plan because it preserves green space, encourages habitat protection and environmental and water quality, and provides a better hiking trail network.

Some of the concerns expressed include whether the large amount of area preserved is appropriate without supportive findings, whether enough land is being protected, and whether the most environmentally critical areas are those being targeted for development. Additional concerns include encroachment near the Econ River, inadequate consideration of watershed issues, and the need for linear green space such as bike trails.

### **Location of Development**

On the positive side, participants liked the concentration of development around the proposed campus of the community college, and the development west of the Econ corridor that does not encroach on the river. Other issues caused concern, including job concentration away from I-4 and the university, the proximity of residential to industrial areas, and development proposed on land that is not most suitable for it.

### **Process**

There were concerns raised about a number of process-related and governance issues. Participants wondered about the relationship of this effort to annexation and the city of Orlando. They noted that the model is confusing and that the area may be an undesirable place to live because of lack of diversity. On a positive note, participants noted that the scenario could mean development will be slower and better managed.

### **Mixed Use**

Mixed use is a positive element and was cited as a possible “turning point for the state.”

### **Town Center**

The town/village center concept was seen as a positive element because it mixes uses and creates a strong activity center for Innovation Way.

### **Transit**

Transit received both positive and negative comments. Some felt it offered good alternative transportation options and could create a positive pedestrian experience. Others expressed concerns that they really did not understand what a light-rail option would be (e.g. elevated monorail).

### **Transportation (Automobile)**

A fair number of comments were received about transportation. The major concerns focused on congestion. Congestion could be created by those commuting to and from work due to a jobs/housing imbalance, higher densities stressing the road system, and/or increasing numbers of residences. There were also concerns about the need for wider lanes of traffic, and some noted that there was a lack of detail in the transportation network illustrated in the scenario.



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### Indicators: Polling Results

Participants were asked to indicate which of the following indicators are the most important with respect to Innovation Way: land use balance; transportation balance; jobs/housing balance; cost of infrastructure; fiscal impact; proximity to shopping, jobs, transit, etc.; species habitat; or water quality.

The participants selected their top indicator during two rounds of voting. Local responses clearly indicated that the land use balance was most important. This was followed closely by transportation balance. Jobs/housing balance and fiscal impact were in third and fourth place respectively. The results of the first round of voting are included in the table to the right.

Most Important Indicators With Respect to Innovation Way (Round I)						
Indicator	Total #	Total %	Local #	Local %	National #	National %
Land use balance	15	23.8%	7	25.0%	5	19.2%
Proximity to shopping, jobs, transit	10	15.9%	3	10.7%	6	23.1%
Jobs/housing balance	9	14.3%	4	14.3%	4	15.4%
Species habitat	9	14.3%	2	7.1%	4	15.4%
Transportation balance	7	11.1%	6	21.4%	1	3.8%
Fiscal impact	7	11.1%	4	13.3%	3	11.5%
Water quality	6	9.5%	2	7.1%	3	11.5%
Cost of infrastructure	0	0.0%	0	0.0%	0	0.0%



### Meeting Results: Hands-on Planning Session and Public Forum for the Future of Innovation Way

Following the Scenario Public Meeting, the tool providers spent time reviewing participant input and preparing for the Hands-on Planning Session on Saturday, October 29, 2005, from 8:30 a.m. to 12:00 p.m. This event was followed by the Public Forum for the Future of Innovation Way from 3:30 p.m. to 5:00 p.m.

During the hands-on planning session, local and national participants worked in breakout groups to build on the feedback generated in the Thursday evening public meeting, create new iterations of scenarios, and develop policy recommendations that could support the implementation of those scenarios. The five breakout group topics are listed in the sidebar under Charrette Topics.

The participants presented their final scenarios for Innovation Way along with policy recommendations for the group to discuss and vote on during the Public Forum. The complete PowerPoint presentation is available as a separate document.

After each of the breakout groups presented a summary of their discussion,

participants were asked to rate each groups' proposed recommendations on a scale of one to nine, where one equals very negative impact, five equals neutral/undecided, and nine equals very positive impact. The local participants' feedback on the different recommendations is presented on pages 43-44.

By and large, there is strong local support for the recommendations that resulted from the Hands-on Planning Session. For 20 of the 24 recommendations, the highest shares of responses were for "very positive impact."

#### **AGENDA**

#### **SATURDAY, OCTOBER 29**

*HANDS-ON PLANNING SESSION*

*GROUP DISCUSSION*

*BREAKOUT CHARRETTE GROUPS*

*BRIEF INTRODUCTION TO TOOLS*

*WORK ON CRITICAL QUESTIONS TO IMPROVE EXISTING SCENARIO*

*GENERATE 2-3 POLICY*

*RECOMMENDATIONS*

*BREAK FOR LUNCH*

#### **PUBLIC FORUM**

*DISCUSSION OF SMALL GROUPS*

*VOTE ON POLICY RECOMMENDATIONS*

*ADJOURN*

#### **CHARRETTE TOPICS**

*LAND USE AND TRANSPORTATION*

*HABITAT PLANNING*

*FISCAL ANALYSIS*

*VISUALIZING THE VILLAGE CENTER*

*CONCEPT*

*BUILDING COLLABORATIVE*

*RELATIONSHIPS*



## Community Planning Collaborative 2005

<b>Evaluation of Recommendations for Innovation Way</b>									
Recommendation	Response Percentage (1=very negative impact, 5=neutral/undecided, 9=very positive impact)								
	1	2	3	4	5	6	7	8	9
<b>Land Use and Transportation</b>									
Create and preserve transit alignment.			7.7				30.8	7.7	53.8
Orient dense development around transit stations.						7.7		7.7	84.6
Create interconnected street network.			7.1				21.4	7.1	64.3
Create connected open space/greenway system.					7.7		23.1	7.1	61.5
Provide balance of jobs and housing.				7.1			35.7	7.1	50.0
<b>Habitat Planning</b>									
Retain a conservation zone in the northwest.			7.1		14.3		7.1		71.4
Use the regional context to influence element selection, weights, and goals.							35.7	28.6	28.6
Prioritize large, unfragmented ecosystems.		7.1			7.1		7.1		78.6
Include more habitat elements in the analysis rather than just legally protected or rare elements.		7.7	7.7		15.4	7.7	15.4	7.7	38.5
Conduct additional field surveys.						7.7	38.5		53.8
Strive to keep a system of conservation lands/parks near the people.						7.1	7.1	21.4	64.3
Continue this iterative process . We're not there yet.			7.7		7.7		7.7		76.9

# Community Planning Collaborative 2005



Recommendation	Response Percentage (1=very negative impact, 5=neutral/undecided, 9=very positive impact)								
	1	2	3	4	5	6	7	8	9
<b>Fiscal Analysis</b>									
Ensure buildings are between 3 and 6 stories to maximize revenue while maintaining acceptable density/appearance.			8.3		16.7		33.3	16.7	25.0
Design commercial development to take a mixed-use "campus" approach including shared parking, shared retention ponds, transit nodes, and circulator routes to residential and employment centers.			7.7		7.7	7.7	15.4	15.4	46.2
Create residential development to include a diversity of housing types (including executive and workforce housing) in a variety of locations.							8.3	33.3	58.3
<b>Visualizing the Village Center Concept</b>									
Bring the natural systems into the heart of all neighborhoods and centers.					25.0		33.3	8.3	33.3
Create an identifiable character to neighborhoods and centers.			8.3		16.7				75.0
Create narrow, walkable streets, and softened with Landscaping.	7.7				7.7		30.8	7.7	46.2
Have good access to transit everywhere.			7.1		7.1			7.1	78.6
Ensure there are gathering places with people amenities (benches, etc).					7.1	7.1	14.3	14.3	57.1
Have on-street parking and access to surface and structure parking.					7.7		30.8	7.7	46.2
Have a hierarchy of parks connected to conservation area.					8.3		16.7	16.7	58.3
<b>Building collaborative relationships</b>									
Have a planning process that is open, inclusive, and collaborative.							16.7	8.3	75.0
Fulfill the community's vision through the plan for Innovation Way .						8.3	16.7	8.3	66.7



### VI. Capacity Building in the Orange County Planning Division

Through the Tool Provider Request for Proposal process we were successful at engaging a diversity of tools for our work on Innovation Way. Each tool has specific strengths for scenario planning and public participation.

Because all of the tools were well received and demonstrated their value for particular components of the scenario planning process and public participation we have no hesitation recommending them all.

Building on the Decision Support Needs Assessment and the experience of working with the tools at the CPC Summit, we have generated the following list of items to consider when prioritizing which tools to add to the Orange County Planning Division to expand current decision making capacity. (See page 6 to download the Assessment report which includes a detailed description of the Division's current capacity and the pros and cons of decision support tools discussed in this report.)

#### PRIORITIZING DECISION SUPPORT TOOLS FOR ADOPTION

##### Impact Analysis Tools

Impact analysis is a critical component of scenario planning and therefore acquiring these tools is a recommended priority for Orange County.

CommunityViz and CorPlan were both applied to Innovation Way during the Summit and both have important strengths. The strengths of CommunityViz include that it is relatively easy to use, its scalable, it accepts all shapefiles and databases, and it is easy to integrate visualization tools. As part of the commitment to participate in the CPC process, The Orton Family Foundation has donated one license and a 12 month full technical support package from Placeways, LLC.

One of CorPlan's important strengths is that it can integrate with transportation modeling. Interestingly, as a result of the Summit, the Renaissance Planning group, the creator of CorPlan, is in discussions with Placeways, the developer of CommunityViz, on ways to interface CorPlan analysis.

The Division should continue to monitor the progress of this development and

explore ways in which to take advantage of CorPlan as they adopt CommunityViz.

It is also recommended that the Division consider a partnership with the Florida Department of Community Affairs and *myregion.org* who are using INDEX for regional planning activities. The Division could explore opportunities to apply this tool to specific planning projects that would take advantage of INDEX's regional land use and transportation scenario planning applications and ability to weight indicators of importance. By utilizing the same indicators as the region, the Division can be an active partner in helping to meet regional goals.

##### Fiscal Analysis

InfraCycle software was very successful at analyzing and demonstrating the life cycle costs of alternative land use plans for the CPC Summit. It is recommended that the Division adopt InfraCycle to better understand and demonstrate associated costs of infrastructure and community services and programs and to forecast revenues and cash-flow for development proposals. InfraCycle has agreed to work with Orange County to identify a specific package of licensing and support at discount rate.



### Environmental Modeling

The importance of high quality habitat information to help the public understand critical environmental issues and develop strategy recommendations became very apparent at the CPC Summit. The Division can take advantage of a wealth of data from the Florida Natural Areas Inventory and consider utilizing the Vista tool, used during the Summit, to analyze the impacts of specific development proposals.

### Public Participation Tools

The next priority for the Division is to adopt tools that will increase their capacity to collect feedback from the public. There are several recommended strategies for enhancing public participation using tools and techniques demonstrated at the Summit as well as web tools to increase outreach capabilities.

#### Keypad Polling Technology

The Division should consider purchasing keypads and Option Finder software used to enhance the visioning and scenario feedback public meetings for CPC. Keypads can be used for more than just planning meetings so the cost could be shared among various County departments. Staff will have to be trained on setting up and running keypad events but this is relatively simple to learn.

### Web site Tools

dotProject is a free open source project management tool that could help support Division projects. dotProject includes easy to use timelines, calendars and files that can be shared with the public, there is a discussion forum, and permissions to access to various resources can be controlled by the Division.

Web mapping is another tool used during the CPC Summit to enhance public meetings by linking public input to specific sites on a map. In addition, an online portal can link those members of the public who cannot physically attend a meeting to provide input either live, or after a meeting.

Integrating visualization technology with the web also presents an opportunity for the Division to both educate the public about the look and feel of specific projects and gain additional feedback from those people who cannot attend a meeting. Visualizations from either CommunityViz or SketchUp can be posted on the web and used by all sections of the Division. Many communities have integrated visualization capabilities with online surveys to get public feedback on proposed ideas.

### Visualization Tools

Visualization tools are less a priority for the Division and its mission but very helpful in providing clarity to decision making strategies. Visualization tools can enhance the Division's public involvement capabilities and can be used in both public meetings and online to educate the public and get feedback on different design or development solutions.

Another benefit of using CommunityViz is that it comes with a tool called SiteBuilder 3D. Site Builder is a great tool for integrating the community process phase with the impact analysis phase because it can quickly generate a 3-D model of a place from GIS data. Site Builder rapidly generates terrain, buildings, trees, and streetscapes and allows users to fly or walk through the 3-D environment in real time. When packaged with CommunityViz, SiteBuilder can also build exportable real-time 3D scenes that can be distributed and viewed with a free viewer.

SketchUp is another 3D tool worthy of consideration by the Division. It is an easy to use, intuitive, and inexpensive 3D modeling software that can create more realistic images than SiteBuilder. SketchUp might be used in place of SiteBuilder, for example, to create a visualization of



a streetscape where details of individual buildings are more important than massing models.

### **Building Stakeholder Relations**

The Smarter Land Use Project was a very well received low-tech tool at the Summit designed to engage those people who would be affected by a development and create a collaborative team approach to designing a profitable, neighborhood-enhancing project. Several staff members expressed interest in this process that utilizes printed maps and a wooden kit of parts. Because of its low cost and interest it generated among Orange County staff, it is worth consideration as a resource for contentious projects. The Smarter Land Use Project staff agreed to work with the Division on specific projects at a minimal cost.



## VII. Appendix

### Appendix A Participating Experts and Tool Providers and Their Roles

#### *Public Participation Experts/ Consultants*

Bill Lennertz, National Charrette Institute  
Gianni Longo, ACP Visioning and Planning,  
Ltd.  
George Janes, Environmental Simulation  
Center

#### *Scenario Development and Analysis*

CommunityViz and Placeways worked  
with InfraCycle to model fiscal and  
infrastructure impacts.

The Renaissance Planning Group used  
CorPlan and CUBE to evaluate land use  
and transportation.

The Florida Natural Areas Inventory  
used the Vista Tool to evaluate impacts to  
biodiversity and preservation of important  
habitats.

Winston Associates used 3-D modeling  
to look at design and scale of the  
neighborhood prototypes, live, with CPC  
participants.

ForeSee Consulting Inc. evaluated density  
patterns and impacts to the neighborhood  
prototypes.

The Smarter Land Use Project helped  
participants understand a process,  
called the Project Integration Procedure,  
for creating a citizen-led processes to  
ensure a collaborative team approach to  
development and designing a profitable,  
neighborhood-enhancing project.

#### *Hands-on Digital Charrette—Hands on Planning Session*

Participants worked in breakout groups,  
side-by-side with the Orange County  
public, to build on the feedback generated  
in the Thursday evening public meeting,  
created new iterations of scenarios, and  
developed policy recommendations that  
will support the implementation of those  
scenarios. Here is a list of the digital  
charrette offerings.

#### **InfraCycle/CommunityViz**

Different strategies for development have  
different infrastructure costs and fiscal  
returns associated with them. The more  
intensified and integrated the land use  
and transportation patterns, such as in a  
Transit- Oriented Development approach,  
the higher the infrastructure costs, and  
at the same time, if done correctly, the

higher the fiscal returns. This charrette  
group worked with the CommunityViz/  
InfraCycle team to identify a land use and  
transportation solution that maximized  
desired results and returns on investments.  
The best tools in the world won't provide  
desired outcomes if the necessary  
stakeholders are not engaged in the  
decision- making process.

#### **The Project Integration Procedure**

The Project Integration Procedure is  
a ground-tested process that ensures  
planning decisions have a positive impact  
on surrounding neighborhoods and  
communities. In this digital charrette,  
attendees learned a citizen-led procedure  
for creating a collaborative team and  
designing a profitable, neighborhood-  
enhancing project. Particularly effective in  
situations where there has been distrust or  
confrontation, this do-it-yourself procedure  
improves relationships among participating  
community members, developers, and  
government officials. Participants in the  
Project Integration Procedure charrette  
learned a step-by-step process for (a)  
building collaborative relationships among  
themselves, developers, and planning staff,  
and (b) including specific community-  
enhancing features in a proposed project.



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### **FNAI/Vista**

Florida is a state blessed with species diversity and an environmentally rich landscape. Any new development must be well thought out and well integrated with a strategy for protecting these valuable resources. The NatureServe Vista tool, developed by conservation planning and software engineering experts at NatureServe, was used to help participants look at habitat issues in an integrated and effective way. This helped to ensure development plans for Innovation Way enhanced green resources. This charrette group worked with the Florida Natural Areas Inventory (FNAI) and NatureServe staff in collaboration with the Vista tool to look at critical habitats and clarify how they were affected by development strategies. Participants then generated a development strategy that maximized existing green infrastructure with a focus on wildlife habitat.

### **Renaissance CorPlan and CUBE**

When creating a master plan for a large area like Innovation Way, it is important to think about how land use and transportation strategies will shape growth both locally and regionally. The Renaissance Planning Group utilized their CorPlan land use analysis tool along with CUBE transportation software (created by

Citilabs) to help participants understand the trade-offs of different land use and transportation scenarios for Innovation Way. This charrette group worked with the Renaissance Planning Group to create a land use and transportation plan that maximized the outcomes on topics local citizens said were important, such as the preservation of open space and the environment, the creation of balanced jobs and housing opportunities, and access to a diversity of transportation options.

### **Winston Associates**

What will it take to make Innovation Way attractive to high-tech companies, home ownership, and office space? Winston Associates used 3-D visualization tools such as SketchUp and Blitz 3D to demonstrate how visualization tools help citizens think about form and function. This charrette group worked to apply 3-D visualization tools to a hypothetical neighborhood center to see the interrelationship of transit and walkability and explored ways to manipulate them to help create a vibrant, walkable, people-friendly neighborhood center that will attract desired growth.

### ***Trainings on Decision Support Tools and Techniques***

On Thursday, October 27, participating tool providers offered 3-hour trainings on the use of their decision support tools and techniques - including scenario planning tools, 3-D visualization tools, fiscal impact analysis tools, designing a charrette process, and improving stakeholder relationship techniques. Approximately 50 attendees took advantage of this opportunity. Here is a description of each training offered.

### **Modeling Fiscal and Community Impacts with InfraCycle**

The choices you make about the physical elements of your community plan (land use and density) will determine both the cost of service delivery and the revenues available to support the vision. InfraCycle software is used to model fiscal and community impacts of different land use scenarios to better assess the costs and benefits of different proposals. With InfraCycle's online software learned to analyze a land use plan, calculate life cycle costs of infrastructure and community services, and understand the implications of density changes and transportation options.



### **Improving Stakeholder Relations with the Project Integration Procedure**

The best tools in the world won't provide desired outcomes if the necessary stakeholders are not engaged in an effective decision-making process.

The Project Integration Procedure is a ground-tested process that ensures planning decisions have a positive impact on surrounding neighborhoods and communities. The process involves a citizen-led procedure for creating a collaborative team and designing a profitable, neighborhood-enhancing project. Particularly effective in situations where there has been distrust or confrontation, those who attended this workshop learned how this do-it-yourself procedure improves relationships among participating community members, developers, and government officials.

### **Community Planning with CommunityViz**

CommunityViz - which works as an extension of ArcGIS - is a popular, inexpensive, and powerful planning tool that provides GIS-based analysis and real-world 3-D modeling to help people envision land use alternatives and understand their potential impacts. This session explored growth analysis techniques using CommunityViz.

Participants received hands-on exposure to practical examples of community planning issues.

### **Scenario planning with CorPlan and CUBE**

Scenario planning is an increasingly popular approach for communities seeking to evaluate alternative visions for growth and development. This demand forecasting software package is a simple yet effective tool for developing and analyzing alternative transportation and land use scenarios. Participants received a basic overview of the scenario planning process, functions and data requirements of CorPlan, and witnessed a demonstration of the development and evaluation of a transportation/land use scenario using CorPlan and CUBE. By the end of the session, participants had a good understanding of how the two applications could be used for scenario planning in their own communities.

### **Create Visualizations Using SketchUp and Blitz 3D- Winston Associates**

Three-dimensional visioning technology has emerged as an important consensus-building tool for planning. Winston Associates conducted a training session on the use of SketchUp and its application in community development and consensus

building. The first two-hour period were devoted to instruction in core SketchUp tools. The remaining hour explored the integration of SketchUp models with both high-end rendering applications and real-time gaming environments.

### **Engaging Stakeholders Using Interactive Scenario Planning Tools with MetroQuest**

This workshop provided a hands-on opportunity to see how scenario planning tools are transforming long-range planning and stakeholder engagement. Using the award-winning MetroQuest scenario planning software, participants created alternative 40-year scenarios for a metropolitan region and evaluated them according to a wide range of smart growth and quality-of-life indicators. Participants addressed the key policy options facing metropolitan regions in their search for a scenario that simultaneously improved quality of life, fiscal health, and sustainability.

### **Dynamic Planning with the National Charrette Institute**

The National Charrette Institute Dynamic Planning process provides holistic solutions to design and public involvement obstacles encountered in most conventional planning processes. Dynamic Planning is a comprehensive project management



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process that begins with the project vision and ends with the plan's implementation. It includes the use of collaborative design and public involvement tools, such as Charrettes, visioning, and workshops. This workshop provided a complete overview of the NCI Dynamic Planning process, and was useful to elected officials, planning staff, developers, and concerned citizens. The seminar qualified as Module One of the NCI Charrette Planner Certification Program and qualified for AICP and AIA CE credits.

### **Introduction to Digital Charretting 101 with Index Planning Support Software**

Learn how to use digital tools with public groups to create and evaluate scenarios in real-time. This hands-on exercise addressed charrette goals, equipment selection, data preparation, facilitation, scenario building, and evaluation procedures. Scenario topics included land use, urban design, transportation, and environmental issues. Attendees applied digital techniques to a neighborhood design challenge that demonstrated how a digital charrette is conducted and the value digital charrettes add to public engagement and decision making.

### **Decision Support Tools Expo The Project Integration Procedure**

The Project Integration Procedure, developed by the Smarter Land Use Project, is a do-it-yourself planning process for eliminating conflict between neighbors, developers, and city officials. The Project Integration Procedure process helps ensure planning decisions have a positive impact on surrounding impacted neighborhoods and communities by building collaborative relationships and identifying development features that benefit, enhance, and vitalize existing neighborhoods and communities.

### **Criterion Planners – Index Planning Support Software**

Index Planning Support Software is designed to support the entire process of community planning and development. Applications often begin with benchmark measurements of existing conditions to identify problems and opportunities that merit attention in plans. Index Planning Support Software can then be used to design and visualize alternative planning scenarios, analyze and score their performance, and compare and rank alternatives. Once plans are adopted, Index Planning Support Software supports implementation by evaluating the consistency of development proposals against plan goals.

### **Envision Sustainability Tools – MetroQuest**

MetroQuest is a computer simulation tool that allows users to create and compare future scenarios of their region in real time. MetroQuest allows nontechnical people to create and visualize 40-year region wide scenarios in seconds. This capability allows the audience the opportunity to play with policy questions and visualize the impact that those choices could have on the region over time.

### **Winston Associates – 3-D Visualization**

Three-dimensional visioning technology has emerged as one of the most successful consensus-building tools available in today's planning climate. Winston Associates has extensive experience using 3-D visualization tools including as 3-D Studio Max, SketchUp, Blitz 3D, and their own high-end rendering applications and real-time gaming environments.

### **PlaceMatters – eParticipation**

Electronic methods of improving civic engagement are emerging as a new and exciting resource for planners and community activists. For the past several years PlaceMatters has been adopting and developing tools, building on open source software, and creating methods to improve electronic participation in planning projects all around the country.



### **Training and Capacity Building The Renaissance Planning Group – CorPlan and CUBE**

CorPlan is a community-based planning model that estimates land development potential using prototypical community elements as its building blocks. Together with CUBE, a travel demand forecasting package, they can develop and analyze alternative transportation and land use scenarios.

### **InfraCycle and InfraCycle software**

InfraCycle allows you to analyze the life cycle costs of land use plans. With InfraCycle you can understand associated costs of infrastructure and community services and programs while forecasting revenues and cash flow to create break-even operating budgets for development proposals.

### **The Florida Natural Areas Inventory (FNAI)**

FNAI is a nonprofit organization administered by Florida State University that gathers, interprets, and disseminates information critical to the conservation of Florida's biological diversity. Inventory staff continually build and maintain a comprehensive database of the biological resources of Florida, which now includes more than 28,000 element occurrences of

rare plants, rare animals, and high-quality natural communities. These occurrences are maintained in a GIS (Geographic Information Systems) database for mapping and analysis.

### **NatureServe – Vista**

NatureServe is a nonprofit conservation organization that provides the scientific information and tools needed to help guide effective conservation action. Vista is designed to help planners, conservation groups, and local communities better integrate biodiversity information into their landuse and conservation planning processes. With Vista software and accompanying state-of-the-art biodiversity databases, users can accumulate and track data about important species and natural habitats, map these places, and incorporate this information into comprehensive local and regional landuse plans.

### **CommunityViz**

CommunityViz, created by the Orton Family Foundation and distributed by Placeways, provides GIS-based analysis and real-world 3-D modeling that allow people to envision land use alternatives and understand their potential impacts, explore options and share possibilities, examine scenarios from all angles — environmental, economic, and social

— and feel confident in their decisions. By employing the shared language of visualization, CommunityViz allows people to think and act like citizens — beyond their own backyards (and bottom lines).



## Appendix B

### Tool Provider Data and Sources

#### Renaissance Planning Group

RPG used base scenarios and data from the Ivey Planning group, such as information on dwelling units and densities and commercial land uses and employment. Other data requirements of CorPlan were also used, such as including information on parking and occupancy rates and nonresidential building area.

RPG also used GIS data on wetland locations from the National Wetlands Inventory as provided by the Florida Geographic Data Library. Wetlands information was used to exclude areas in CorPlan where development could not occur.

#### CommunityViz/InfraCycle Team

Land use data was provided for several scenarios by Renaissance Planning Group. Land use data consisted of residential, retail, office, industrial, rights-of-way, environmental areas, open space, institutional, parcel sizes in acres, and floor area ratios.

#### Infrastructure

- roads by classification
- light-rail
- sanitary sewers

- water distribution
- conservation and flood control
- interchanges
- traffic signals

#### Community Services

- fire control
- fleet vehicles
- bus transit and light-rail vehicles
- garbage and solid waste
- general government
- legislative
- judicial / court / detention
- law enforcement
- medical examiner
- recreation & cultural

#### Revenues

- property taxes
- charges for services
- court-related revenue
- finances & forfeits
- general revenues
- grants
- impact fees
- transfers
- fees & licenses
- state & other sources
- transit

The source data was obtained from Orange County, the State of Florida Department of Transportation, and InfraCycle's database.

#### FNAI/Vista Team

Occurrence-Based Potential Habitat Models for six species:

- red-cockaded woodpecker (*Picoides borealis*)
- wood stork (*Mycteria americana*)
- bald eagle (*Haliaeetus leucocephalus*)
- Florida sandhill crane (*Grus canadensis pratensis*)
- eastern indigo snake (*Drymarchon couperi*)
- celestial lily (*Nemastylis floridana*)

FNAI habitat models indicate areas which, based on landcover type, offer suitable habitat for one or more rare species that is known to occur in the vicinity. Habitat models have been developed for approximately 300 of the most rare species tracked by the Inventory, including all federally listed species.

FNAI element occurrence for gopher frog (*Rana capito*)

FNAI element occurrences are documented sightings of rare plants, animals, or natural communities.

Element occurrences generally refer to more than a casual sighting; they usually indicate a viable population of the species.

Natural community models for three



## Community Planning Collaborative 2005

community types:

- scrub
- sandhill
- flatwoods

FNAI natural community models are based on a variety of landcover data and, in some cases, ground-truthed observations, and identify natural communities that are under-represented on existing conservation lands.

Wetlands based on the National Wetlands Inventory data

Model of conservation priorities to protect significant high-quality surface waters and natural floodplain, developed by FNAI to inform the state's Florida Forever program.

### **Winston Associates and ForSee Consulting**

Both Winston Associates and ForSee Consulting relied on raw data and data analyzed using CommunityViz and supplied by Placeways.

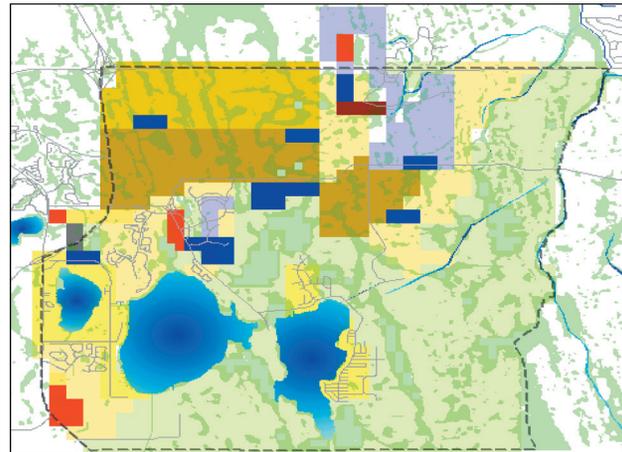
# Community Planning Collaborative 2005



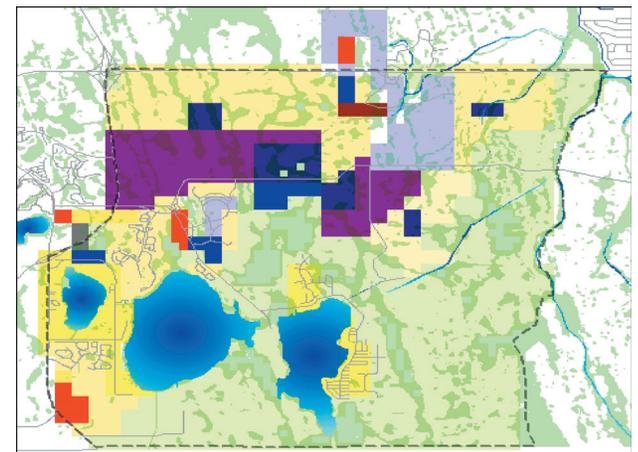
## Appendix C Final Maps and Charts

RENAISSANCE PLANNING GROUP

Current Trend



Village



Current Trend

- Carlsbad Commercial Office
- Community Park
- Carlsbad Residential Low
- Carlsbad Residential Medium
- Carlsbad Rural Residential
- Conservation Mitigation
- Eagle Creek Multi-family
- Eagle Creek Single Family
- Eagle Creek Village Center
- Farmland Industrial
- Farmland Residential
- Farmland Retail Office
- Holland Commercial Office
- Holland Residential
- Holland Rural Residential
- Lake Hart Industrial
- Lake Hart Institutional
- Lake Hart Multi-family
- Lake Hart Retail
- Lake Hart Single Family
- Moss Park Community College MI
- Moss Park Institutional
- Moss Park Office
- Moss Park Residential
- Moss Park Retail Office
- Moss Prop Commercial Off
- Moss Prop Industrial
- Moss Prop Office
- Moss Prop Residential Low
- Moss Prop Residential Medium
- Rural Residential
- Rural Settlement
- Southeast Commercial Office
- Southeast Residential
- Suburban Residential Low

Village

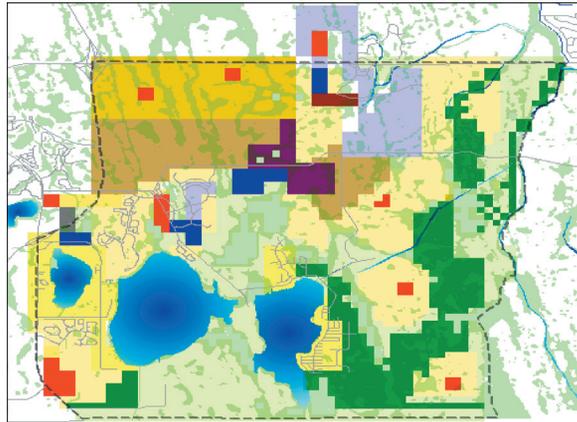
- Conservation Mitigation
- Eagle Creek Multi-family
- Eagle Creek Single Family
- Eagle Creek Village Center
- ICP Industrial Office
- ICP Preservation
- ICP Research Park
- ICP Residential
- ICP Retail Service
- ICP School
- ICP Village Center
- IW High Tech Corridor
- IW Village A Center
- IW Village A Residential
- IW Village BC Residential
- IW Village Center
- IW Village DE Residential
- Lake Hart Industrial
- Lake Hart Institutional
- Lake Hart Multi-family
- Lake Hart Retail
- Lake Hart Single Family
- Moss Park Community College MI
- Moss Park Institutional
- Moss Park Office
- Moss Park Residential
- Moss Park Retail Office
- Rural Settlement



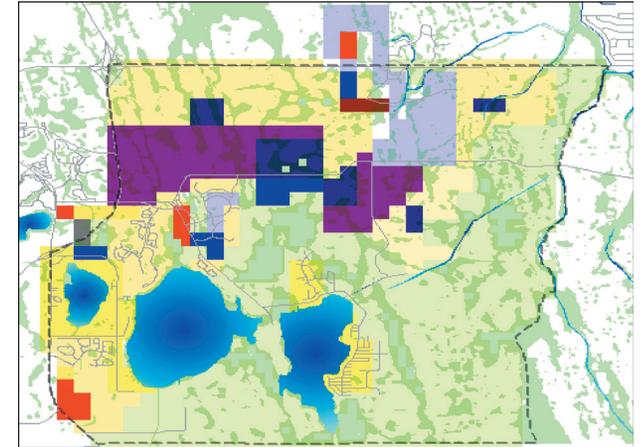
# Community Planning Collaborative 2005

RENAISSANCE PLANNING GROUP

Activity Village



Compact Village



Activity Village

- |                            |                                |
|----------------------------|--------------------------------|
| Conservation Mitigation    | Lake Hart Industrial           |
| Eagle Creek Multi-family   | Lake Hart Institutional        |
| Eagle Creek Single Family  | Lake Hart Multi-family         |
| Eagle Creek Village Center | Lake Hart Retail               |
| ICP Industrial Office      | Lake Hart Single Family        |
| ICP Preservation           | Moss Park Community College Mi |
| ICP Research Park          | Moss Park Institutional        |
| ICP Residential            | Moss Park Office               |
| ICP Retail Service         | Moss Park Residential          |
| ICP School                 | Moss Park Retail Office        |
| ICP Village Center         | Rural Settlement               |
| Innovation Way Rural       |                                |
| IW Village A Residential   |                                |
| IW Village BC Residential  |                                |
| IW Village Center          |                                |
| IW Village DE Residential  |                                |

Compact Village

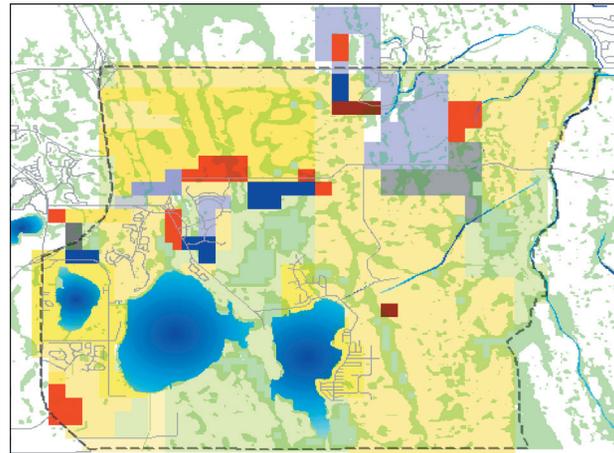
- |                              |                                |
|------------------------------|--------------------------------|
| Conservation Mitigation      | Lake Hart Industrial           |
| Eagle Creek Multi-family     | Lake Hart Institutional        |
| Eagle Creek Single Family    | Lake Hart Multi-family         |
| Eagle Creek Village Center   | Lake Hart Retail               |
| Hybrid Urban Village         | Lake Hart Single Family        |
| Hybrid Urban Village Center  | Moss Park Community College Mi |
| Hybrid Village A             | Moss Park Institutional        |
| Hybrid Village B             | Moss Park Office               |
| Hybrid Village Center        | Moss Park Residential          |
| ICP Industrial Office        | Moss Park Retail Office        |
| ICP Preservation             | Rural Settlement               |
| ICP Research Park            |                                |
| ICP Residential              |                                |
| ICP Retail Service           |                                |
| ICP School                   |                                |
| ICP Village Center           |                                |
| Innovation Center            |                                |
| IW High Tech Corridor Hybrid |                                |

# Community Planning Collaborative 2005

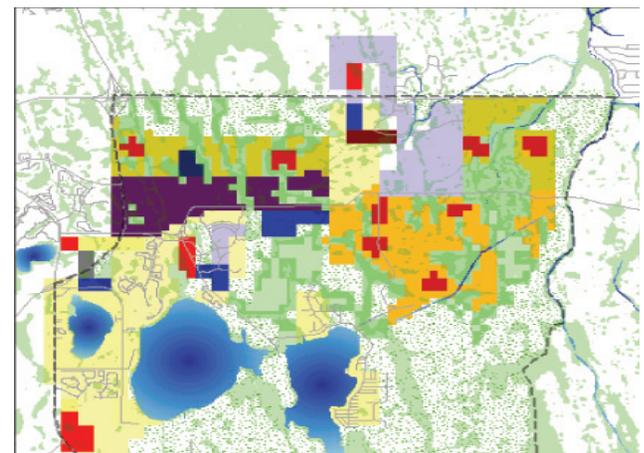


RENAISSANCE PLANNING GROUP

Compact Edge



Hybrid Compact Village



Compact Edge

- |                                |                                |
|--------------------------------|--------------------------------|
| Conservation Mitigation        | Innovation Way Residential     |
| Eagle Creek Multi-family       | IW Block 1 Residential         |
| Eagle Creek Single Family      | IW Block 2 Residential         |
| Eagle Creek Village Center     | IW High Tech Corridor Rural Ed |
| ICP Industrial Office          | Lake Hart Industrial           |
| ICP Preservation               | Lake Hart Institutional        |
| ICP Research Park              | Lake Hart Multi-family         |
| ICP Residential                | Lake Hart Retail               |
| ICP Retail Service             | Lake Hart Single Family        |
| ICP School                     | Moss Park Community College MI |
| ICP Village Center             | Moss Park Institutional        |
| Innovation Way Activity Center | Moss Park Office               |
|                                | Moss Park Residential          |
|                                | Moss Park Retail Office        |
|                                | Rural Settlement               |

Enhanced Compact Village

- |                             |                                |
|-----------------------------|--------------------------------|
| Community Park              | Lake Hart Industrial           |
| Conservation Mitigation     | Lake Hart Institutional        |
| Eagle Creek Multi-family    | Lake Hart Multi-family         |
| Eagle Creek Single Family   | Lake Hart Retail               |
| High Tech Corridor Enhanced | Lake Hart Single Family        |
| Innovation Center Enhanced  | Moss Park Community College MI |
| ICP Industrial Office       | Moss Park Institutional        |
| ICP Research Park           | Moss Park Office               |
| ICP Residential             | Moss Park Residential          |
| ICP Retail Service          | Moss Park Retail Office        |
| ICP School                  | Rural Settlement               |
| ICP Village Center          | Urban Village Center Enhanced  |
|                             | Urban Village Enhanced         |
|                             | Urban Village Center MU Enhanc |
|                             | Village Center Enhanced        |
|                             | Village Center MU Enhanced     |
|                             | Village Enhanced               |



# Community Planning Collaborative 2005

## FLORIDA NATURAL AREAS INVENTORY / VISTA

Note: The Village and TOD maps were not created.

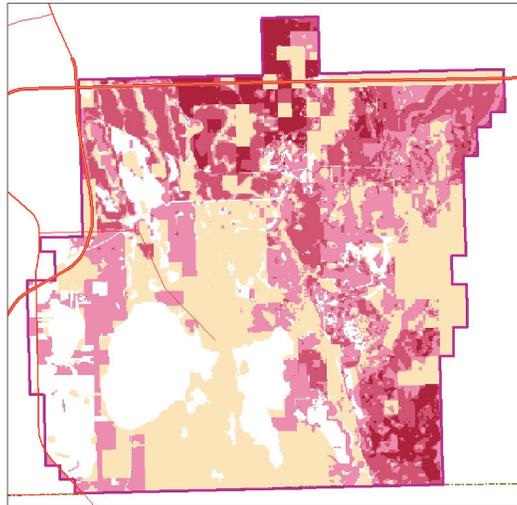
### Current Trend

NatureServe Vista  
Innovation Way  
Status Quo Scenario

Conflict Between Land Use  
and Natural Resources

High  
Low  
No Conflict

Map Date:  
21 Nov 2005



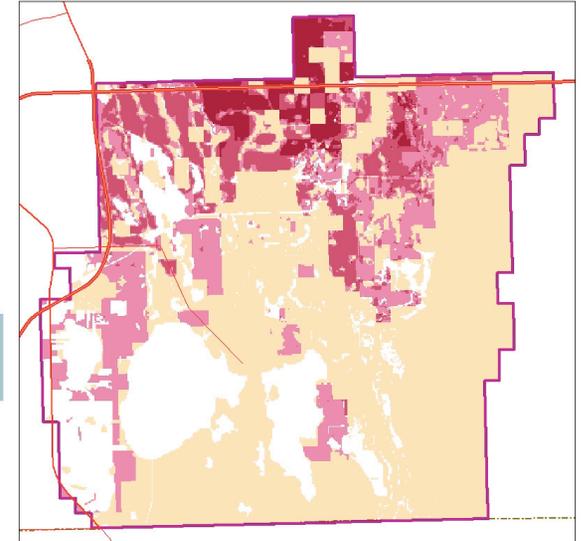
### Compact Edge

NatureServe Vista  
Innovation Way  
Hybrid Scenario

Conflict Between Land Use  
and Natural Resources

High  
Low  
No Conflict

Map Date:  
21 Nov 2005



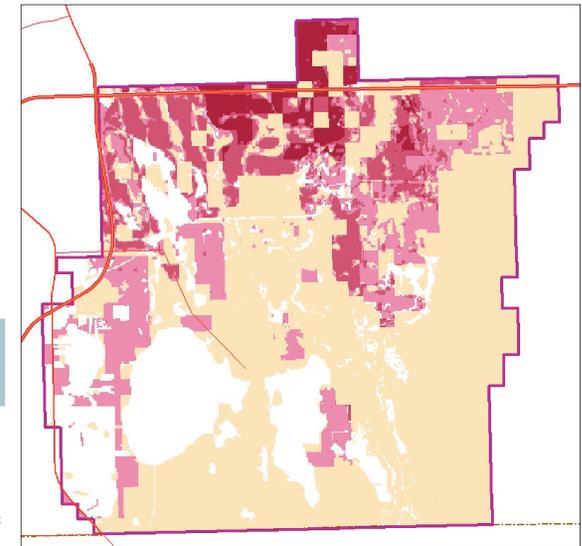
### Compact Village

NatureServe Vista  
Innovation Way  
Hybrid Scenario

Conflict Between Land Use  
and Natural Resources

High  
Low  
No Conflict

Map Date:  
21 Nov 2005



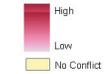


## FLORIDA NATURAL AREAS INVENTORY / VISTA

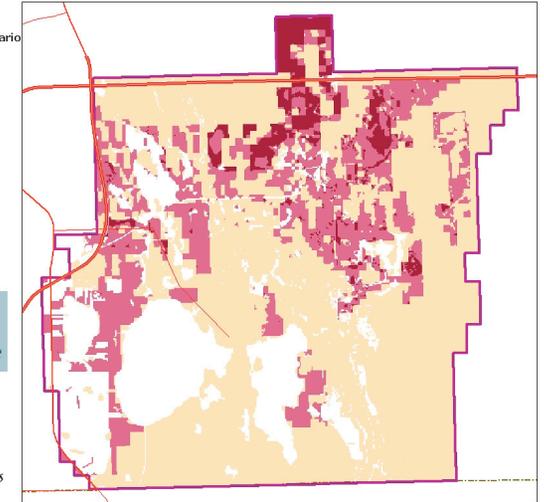
### Hybrid Compact Village

NatureServe Vista  
Innovation Way  
TOD / Charette Scenario

Conflict Between Land Use  
and Natural Resources



Map Date:  
21 Nov 2005



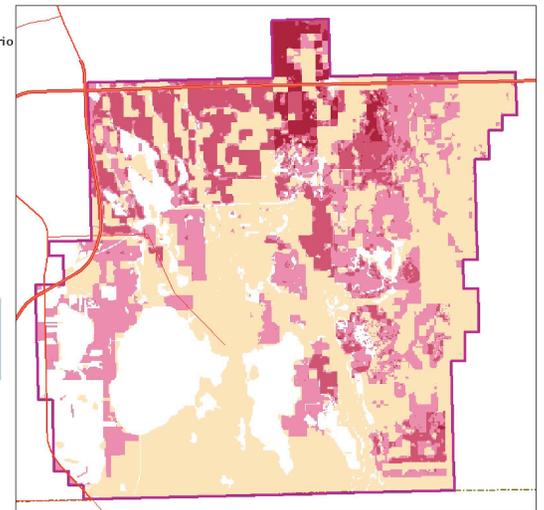
### Activity Village

NatureServe Vista  
Innovation Way  
Activity Village Scenario

Conflict Between Land Use  
and Natural Resources



Map Date:  
21 Nov 2005





# Community Planning Collaborative 2005

PLACEWAYS / COMMUNITYVIZ

**Legend**

Study Area

**Roads**

- Highways
- Access Ramp
- Major Roads
- Minor Roads

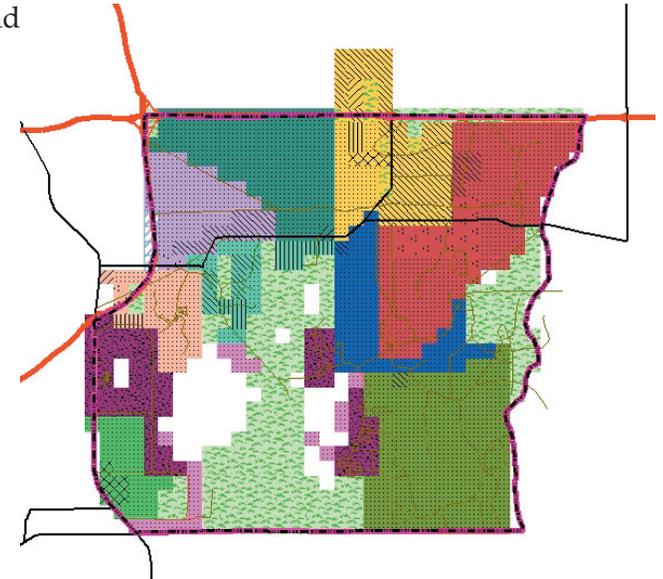
**Communities**

- Status Quo
- Carlsbad
- Conservation Mitigation
- Eagle Creek
- Farmland
- Golf Community
- Holland
- Hybrid
- ICP
- Innovation Way
- Lake Hart
- Moss Park
- Moss Prop
- Neighborhood LRT
- Rural
- Southeast
- Suburban
- TND
- Town Center LRT

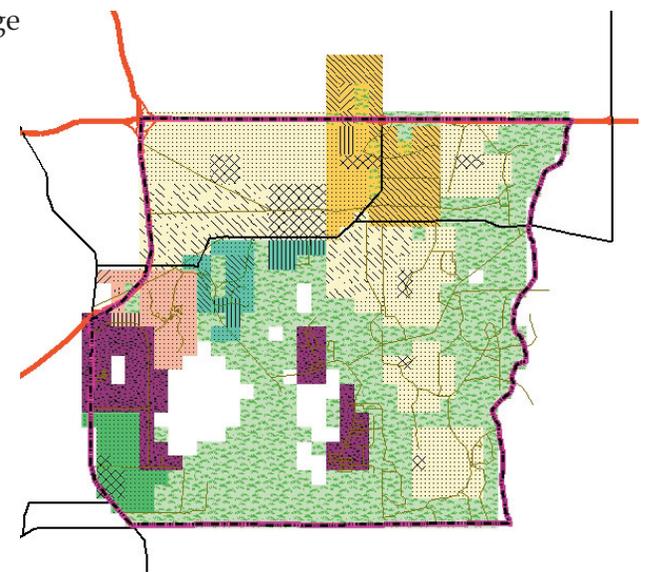
**Land Use**

- Status Quo
- Residential
- Suburban
- Rural Settlement
- Institutional / Schools
- Office
- High Tech Corridor
- Retail
- Industrial
- Mixed-Use Village
- Community Center
- Park
- Conserved Land

Current Trend



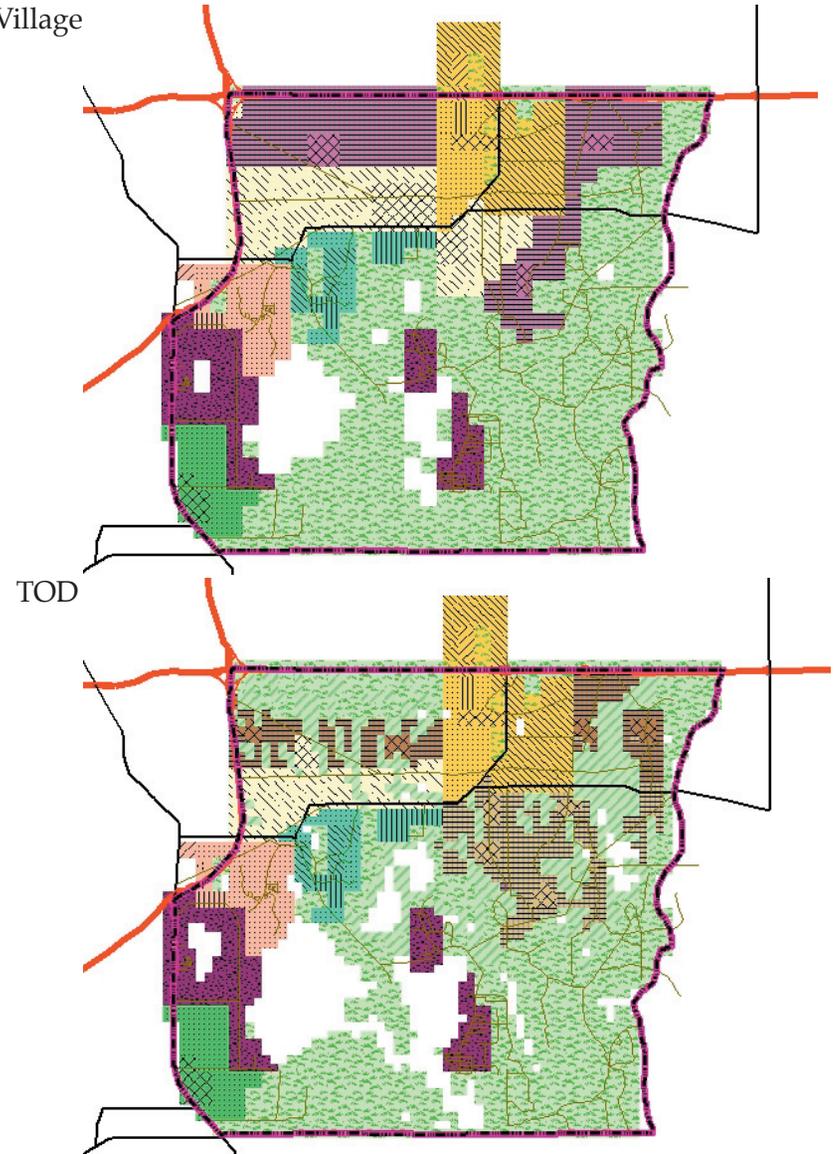
Village





PLACEWAYS / COMMUNITYVIZ

Compact Village



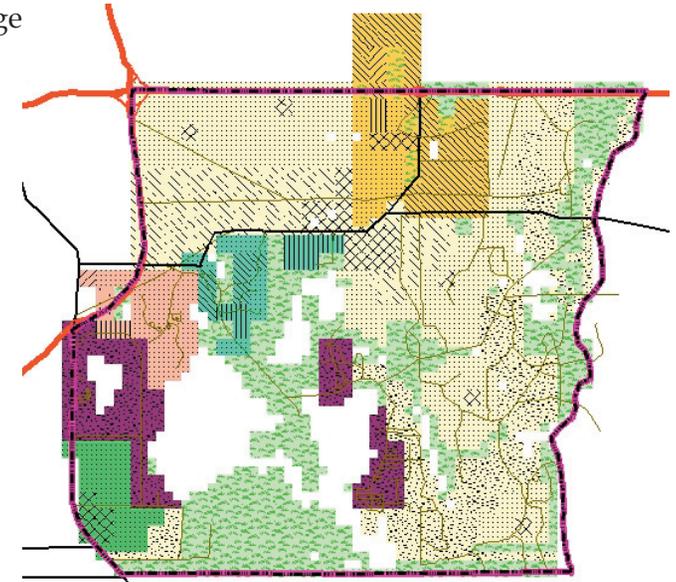


# Community Planning Collaborative 2005

PLACEWAYS / COMMUNITYVIZ

Activity Village

Placeways Symbology	
	Study Area
<b>Roads</b>	
	Highways
	Access Ramp
	Major Roads
	Minor Roads
<b>Land Use</b>	
	Status Quo
	Residential
	Suburban
	Rural Settlement
	Institutional / Schools
	Office
	High Tech Corridor
	Retail
	Industrial
	Mixed-Use Village
	Community Center
	Park
	Conserved Land
<b>Communities</b>	
	Status Quo
	Carlsbad
	Conservation Mitigation
	Eagle Creek
	Farmland
	Golf Community
	Holland
	Hybrid
	ICP
	Innovation Way
	Lake Hart
	Moss Park
	Moss Prop
	Neighborhood LRT
	Rural
	Southeast
	Suburban
	TND
	Town Center LRT

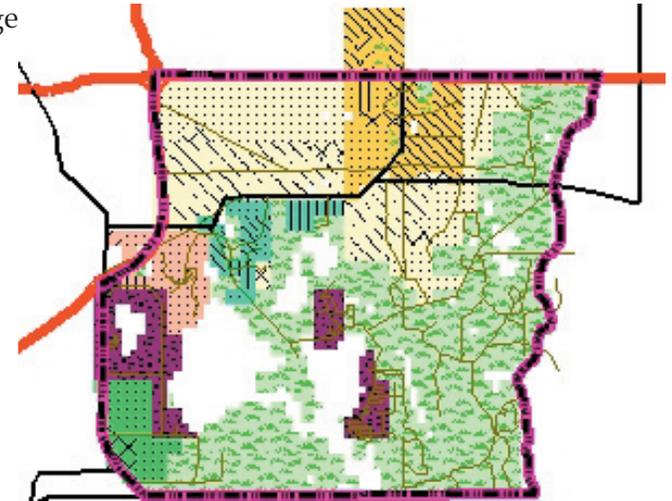




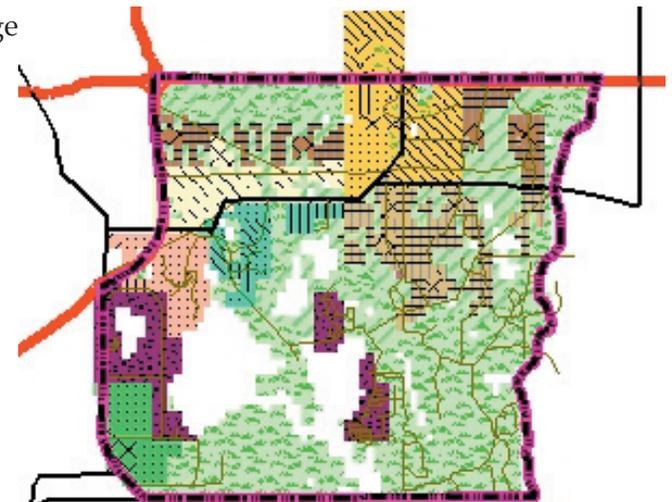
PLACEWAYS / COMMUNITYVIZ

Placeways Symbology	
	Study Area
<b>Roads</b>	
	Highways
	Access Ramp
	Major Roads
	Minor Roads
<b>Land Use</b>	
	Status Quo
	Residential
	Suburban
	Rural Settlement
	Institutional / Schools
	Office
	High Tech Corridor
	Retail
	Industrial
<b>Communities</b>	
	Status Quo
	Carlsbad
	Conservation Mitigation
	Eagle Creek
	Farmland
	Golf Community
	Holland
	Hybrid
	ICP
	Innovation Way
	Lake Hart
	Moss Park
	Moss Prop
	Neighborhood LRT
	Rural

Compact Edge



Hybrid Compact Village



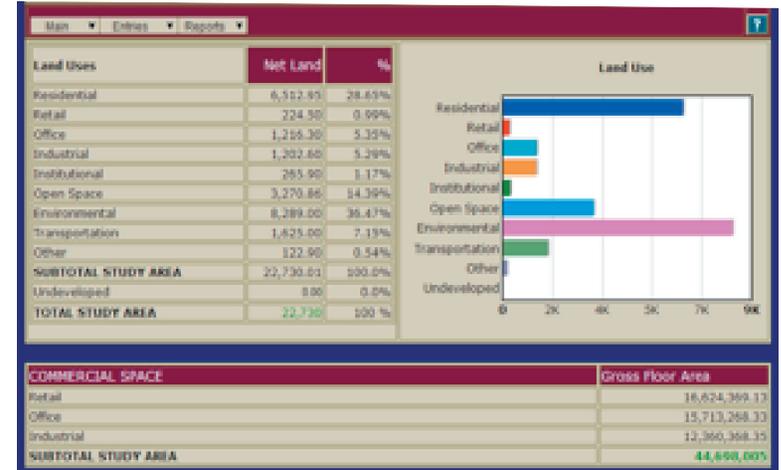


# Community Planning Collaborative 2005

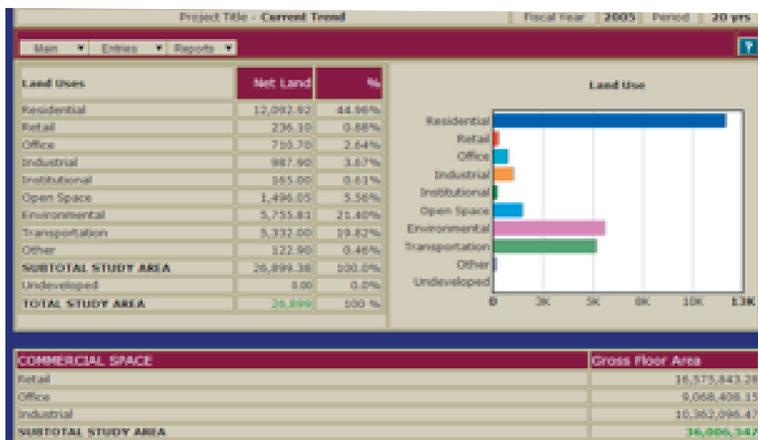
## INFRACYCLE

The charts in this section show the land use allocation for all the scenarios except the TOD.

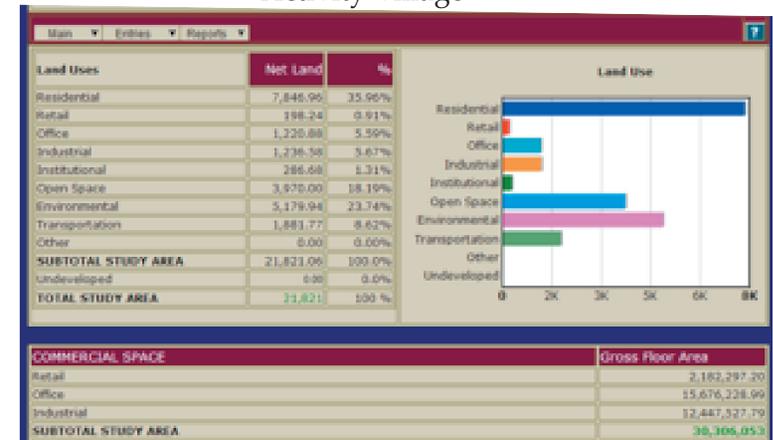
### Village



### Current Trend



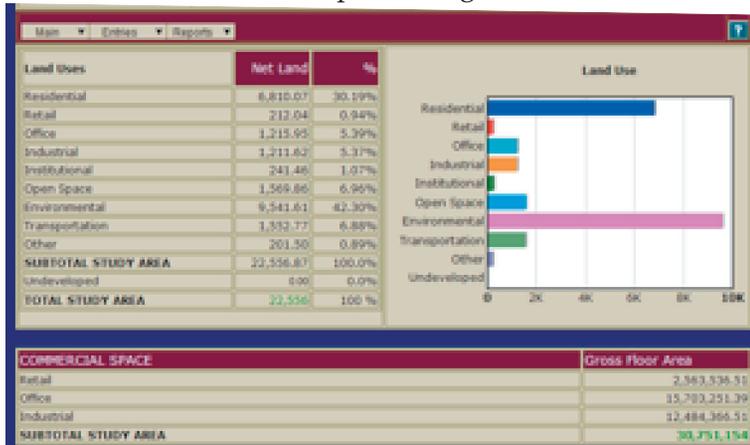
### Activity Village



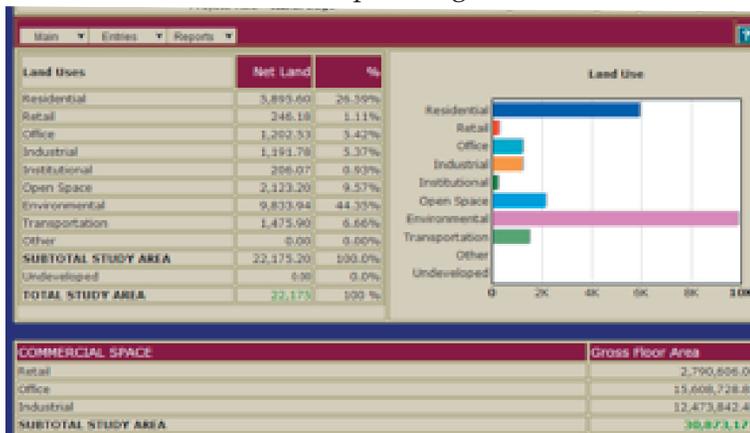
# Community Planning Collaborative 2005



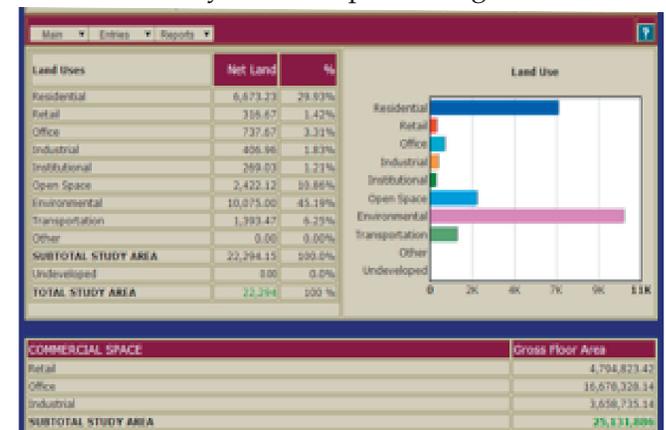
## Compact Village



## Compact Edge



## Hybrid Compact Village



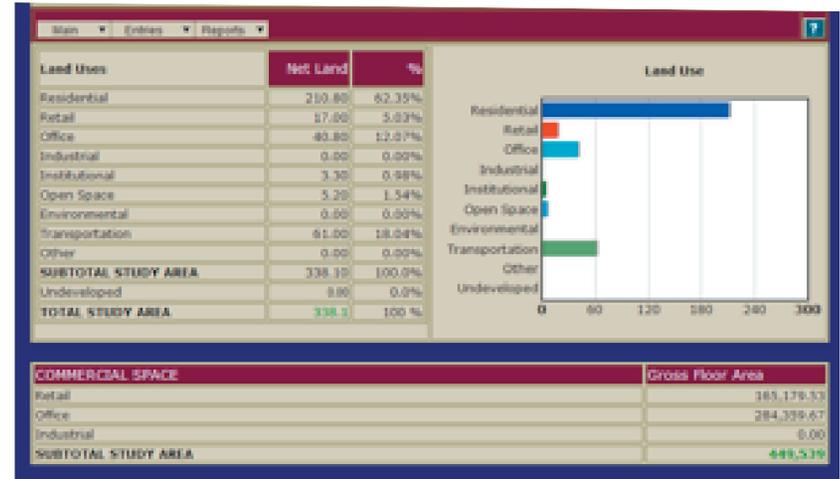


# Community Planning Collaborative 2005

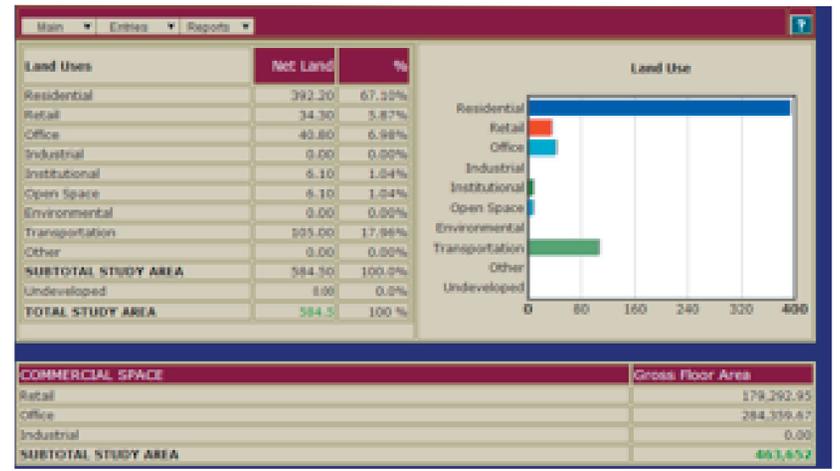
## INFRA CYCLE

The charts in this section show the land use allocation for the Neighborhood Village prototypes.

### Business as Usual



### Transit-Oriented Development



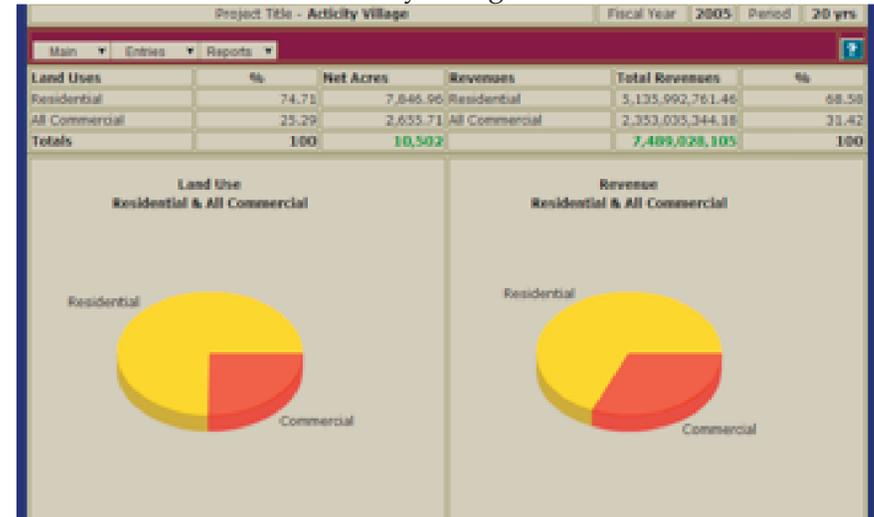
# Community Planning Collaborative 2005



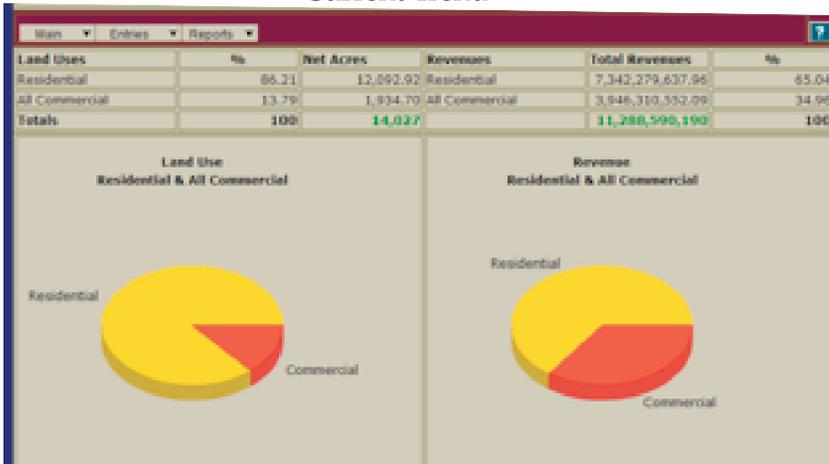
## INFRACYCLE

The charts in this section show the revenues generated by residential and nonresidential land use categories for all scenarios except TOD.

### Activity Village



### Current Trend



### Compact Edge

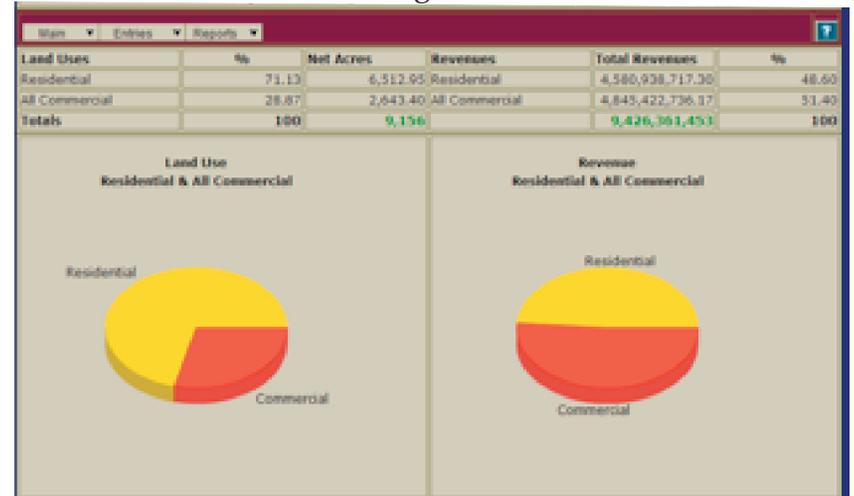




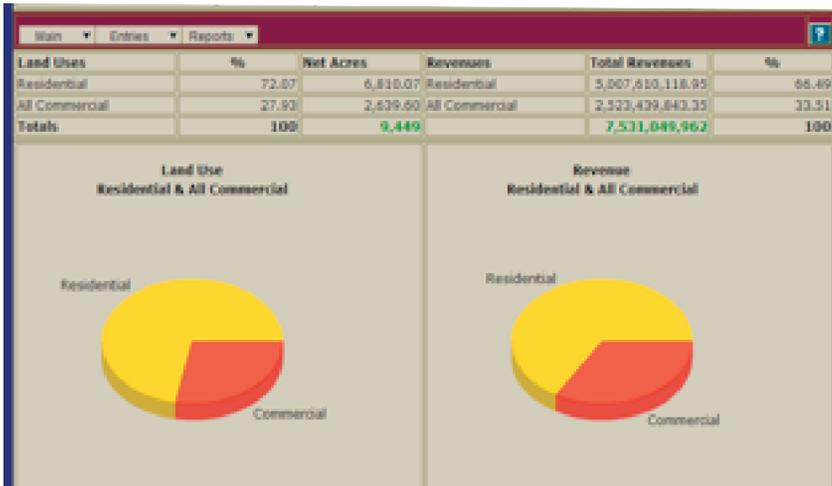
# Community Planning Collaborative 2005

INFRACYCLE

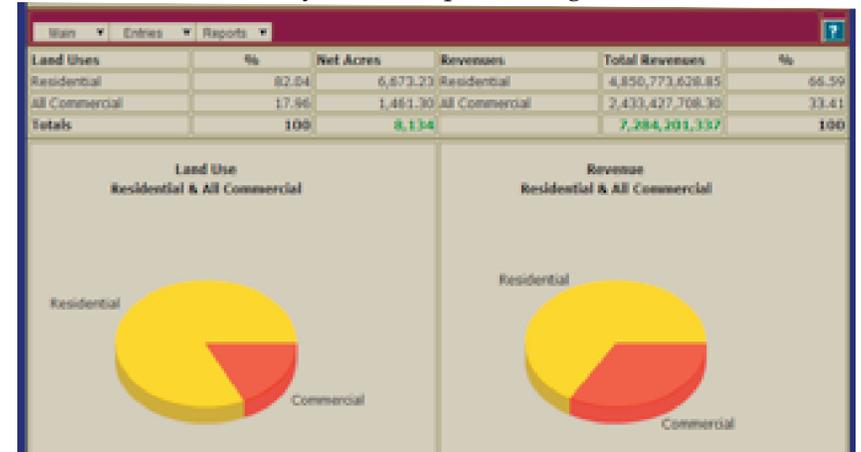
Village



Compact Village



Hybrid Compact Village



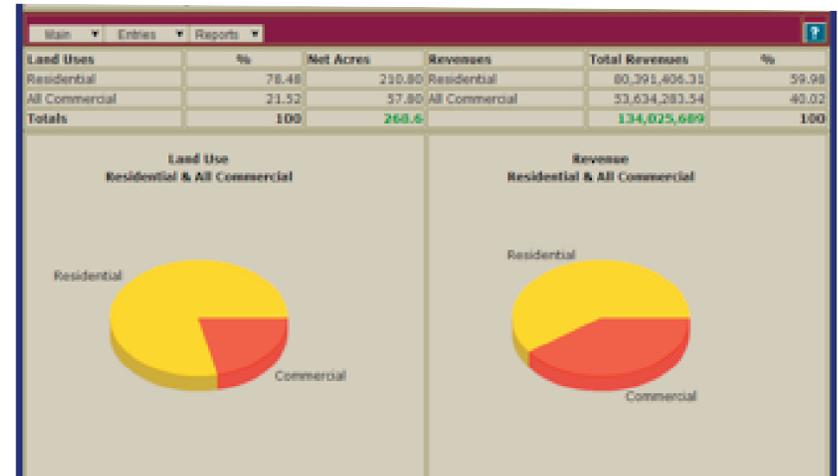
# Community Planning Collaborative 2005



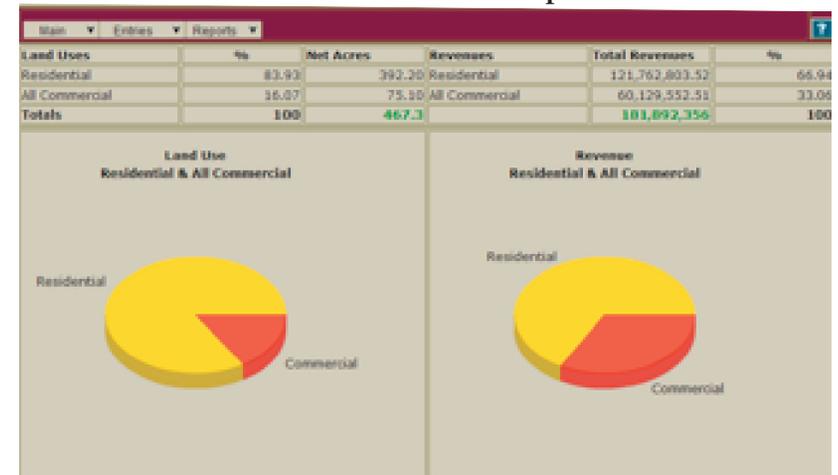
## INFRACYCLE

The charts in this section show the revenues generated by residential and nonresidential land use categories for the Neighborhood Village prototypes.

### Business as Usual



### Transit-Oriented Development





### Appendix D

#### How to Get Involved in the Innovation Way Planning Effort

How can I get more information?

You can follow the progress of the Innovation Way project at the Orange County website (<http://www.ocfl.net/planning>). If you have any direct questions about the Innovation Way project, please contact the Planning Division at [planning@ocfl.net](mailto:planning@ocfl.net) or 407-836-5600.