



Eco-Industrial Park Business Plan for Shovel-Ready Industrial Parcels

Florida's Circular Economy is Shovel-Ready

Re-thinking Waste:
Restorative, Regenerative,
Resource Recovery



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Executive Summary

The first component of a three-part business plan for the Eco-Industrial Park (EIP) is presented in this document. This business plan covers the real estate functions, pricing and comparable projects for the 31 acres of shovel-ready industrial parcels. It also compliments the previously presented community-wide economic impact analysis of the EIP provided by the University of Florida.

Estimated Economic Impact

The EIP will be an international to regional attractor of private sector-industries for Florida's material-remanufacturing future generating up to 3,300 direct, indirect and induced jobs at project buildout.

Estimates at Project Buildout

- 2,069 - 3,337 fulltime and part-time jobs supported.
- Direct employment for operation: 281-471 jobs.
- Average labor income per employee: ~ \$50,800 - \$57,600.
- \$176.7 - \$320.4 million per year in value added (GSP) supported.
- \$11.9 - \$24.6 million per year in state and local tax revenue impacts.

Points Covered by the Business Plan for Shovel Ready Parcels for Industrial Users

- Estimated lease rate structure utilizing relevant comps.
- Estimated parameters of operations, maintenance and site stewardship costs

(e.g. roads, storm water systems, public parking, landscaping.)

- 10 year pro forma with noted external variables.

Lease Rate Pricing

Based on comparable projects with industrial lands the following rate structure is recommended for long term (50+ years) ground leases:

\$0.18 annual rent per square foot per year or \$8,030 annual rent per acre per year on a net lease basis with a 4% escalator every year.

The EIP is made up of three components: A constructed Leveda Brown Environmental Park and Transfer Station; and a 37 acre expansion of Shovel-Ready Industrial Sites along with an in design Research Core.



Construction Phases

Conceptual Layout

The Park encompasses 37 acres of contiguous land. Supporting infrastructure is in place since October 2019 and the land is shovel-ready.

Thirty-one acres are slated for industrial tenants, and 6 acres are reserved to develop a Research Core at a future phase.

The site is proceeding with a phased development, consisting of the following three parts:

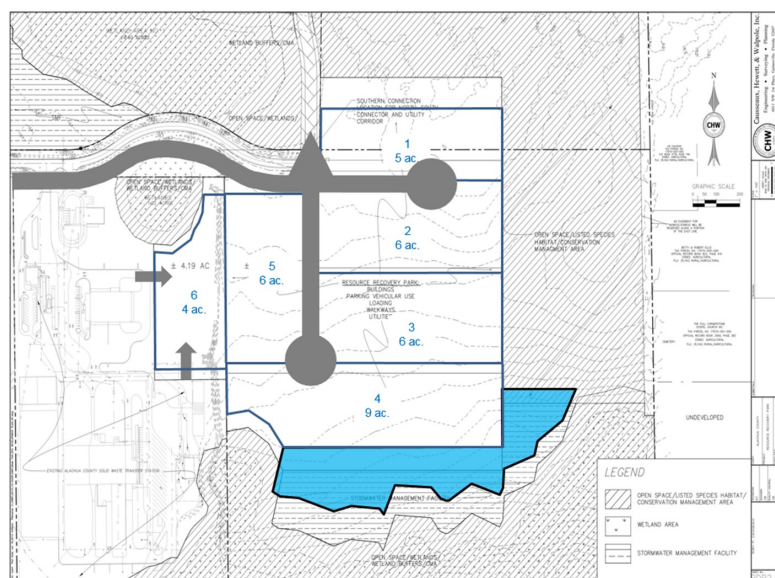
- Existing Leveda Brown Environmental Park and Transfer Station. **(Existing)**
- Shovel Ready Parcels for Industrial Users. **(Just Completed)**
- Research Core, which included a Bulk Material Storage Facility and Research Hub. **(Future Phase)**



Source: UF Schematic Design Package.

Shovel-Ready Parcels

- 31 acres of shovel-ready parcels are available for long-term lease for private sector entrepreneurs invested in recycling, reprocessing and remanufacturing.
- Acreage sizes are open for negotiation.
- Horizontal infrastructure is available including electric, water, waste water, data, connections with storm water retention.



Bulk Material Storage Facility

The bulk material storage facility will be a 15,000 square foot high-bay, open-air, covered facility with an elevated loading/unloading dock, and concrete floor with ground access for a fork lift or other light machinery. Construction will be similar to the Leveda Brown Environmental Park's Materials Recovery Facility: a metal clad with steel truss supports building. The rooftop will be designed to hold solar photovoltaic panels.

This structure will serve the immediate purpose of securing larger reusable items from the waste stream and diverting them from the landfill for reuse, rehabilitation, and redistribution.

The back of the facility will consist of a full wall and the sides will be 2/3 enclosed. A series of shutters will be considered in the design to assist with air circulation. Within the bulk material storage facility will be an enclosed office space for an office manager or other staff necessary to operate the bulk storage facility as well as for the storage of delicate items.

The reuse element of this facility may be operated by a private sector organization with applications being submitted via an RFP put forth by the County. Space will be allocated for limited onsite repair, refurbishment, and deconstruction of materials. A portion of this facility will be reserved for County needs including, but not limited to, the storage of baled recyclable commodities.



Source: Alachua County. All pictures shown are for illustration purposes only.



Source: Alachua County. All pictures shown are for illustration purposes only.



Source: Alachua County. All pictures shown are for illustration purposes only.



Research Hub

The 35,000 square-foot workspace will be open, flexible, high-bay structure. The Research Hub will house public-private partnerships who share goals related to upcycling, material innovation from waste streams, and other intellectual property development. Space designed to facilitate physical processes and testing of materials, precision research, and administrative functions operating concurrently under one roof.

The Research Core & Hub schematic architecture was designed with the support of the University of Florida. The Core overall will be dedicated to industrial partner research and incubation needs turning waste into wealth through cutting-edge academic explorations.

With public-private-partnerships and access to the best UF researchers, the Eco-Industrial Park will be a national center of excellence for sustainable material reuse-recycling-remanufacturing. It is anticipated that collaborative opportunities will be come forward because of a vital community partnership via our top seven, nationally ranked university. UF’s potential presence along with engineers, scientist, and waste-related specialists will work to develop new sustainable materials and a resilient manufacturing industry.



Source: UF Schematic Design Package.
All pictures shown are for illustration purposes only.



Source: UF Schematic Design Package.
All pictures shown are for illustration purposes only.



Source: UF Schematic Design Package.

Benchmark & Comps

Inventory and Analysis

An inventory analysis of competing industrial properties in the Gainesville and Alachua County market determined that there are no or very few comparable parcels where vacant land is rented and tenants build to suit with long term land leases for industrial occupancy.

These restrictions limits the ability to make direct comparisons with rentals of comparable vacant land. However, the Gainesville Regional Airport Business Park is the most similar and comparable property and is in close proximity to the Eco-Industrial Park. This property is consistent with the size, magnitude and other property characteristics of the EIP.

A separate comparable is the City of Gainesville's Airport Industrial Park. It is an industrial property also in close proximity to the Eco-Industrial Park. This park disposes of property in a fee simple market value approach. It is a well established site with a successful history. This property was utilized as comparable to determine a reasonable absorption rate.

The Tallahassee Innovation Park , an industrial park located in Tallahassee, Florida was included as a statewide comparable. There are several reasons to include this property. This park is located in a similar-sized market to Gainesville. It has similar ultimate business model, property characteristics, and is owned by a governmental

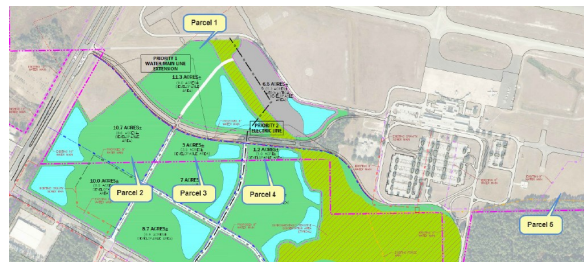
entity with a close relationship with a higher education institution.

As a final comparable, the City of Phoenix/ Arizona State University Resource Innovation Campus was included as a nationwide benchmark because of its focus in attracting circular economy related businesses and its close relationship with a higher education institution.

Local Comps



- Consists of a group of four lots along the new main entry into the Gainesville Regional Airport designed for business park use with lot sizes range from about 1 to 11 acres in size, totaling approximately 35 acres.
- These properties have been identified by the airport as new development parcels available for rent for interested commercial or industrial users.
- Currently vacant commercial/industrial land for lease.



Source: Airport Business Park. Emerson Appraisal Company.

Gainesville.

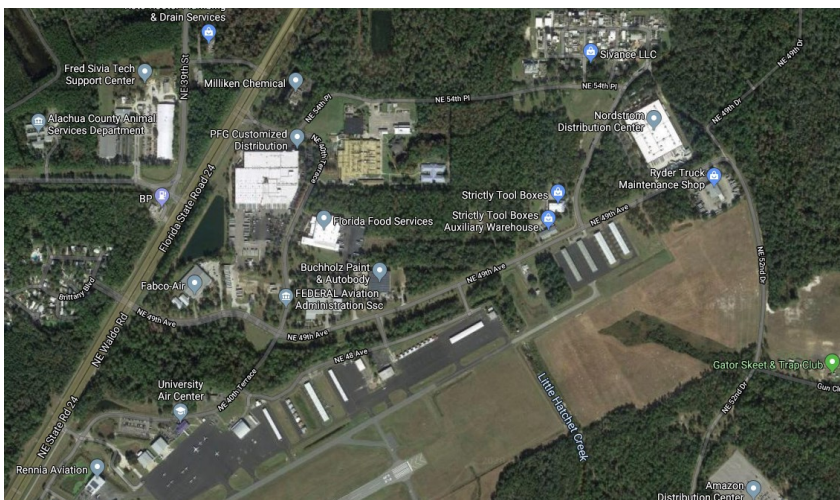
Citizen centered People empowered

Gainesville Airport Industrial Park (Industrial Land)

- Prominent East Gainesville job center.
- Approximately 100-acre property, managed by the City of Gainesville.
- Located just north of the Gainesville Regional Airport.
- Started operations in the late 1990's.
- Home to several manufacturers, logistics and distribution companies such as Nordstrom Distribution Center, Florida Food Service, Strictly Tool Boxes Auxiliary Warehouse, Sivance, Fabco Air, Ryder Truck Maintenance, among others.
- Fee simple market value.



Source: View of Airport Business Park by eda engineers-surveyors-planners, Inc.



Source: View of Gainesville Airport Industrial Park by Google Maps.

Statewide Comps

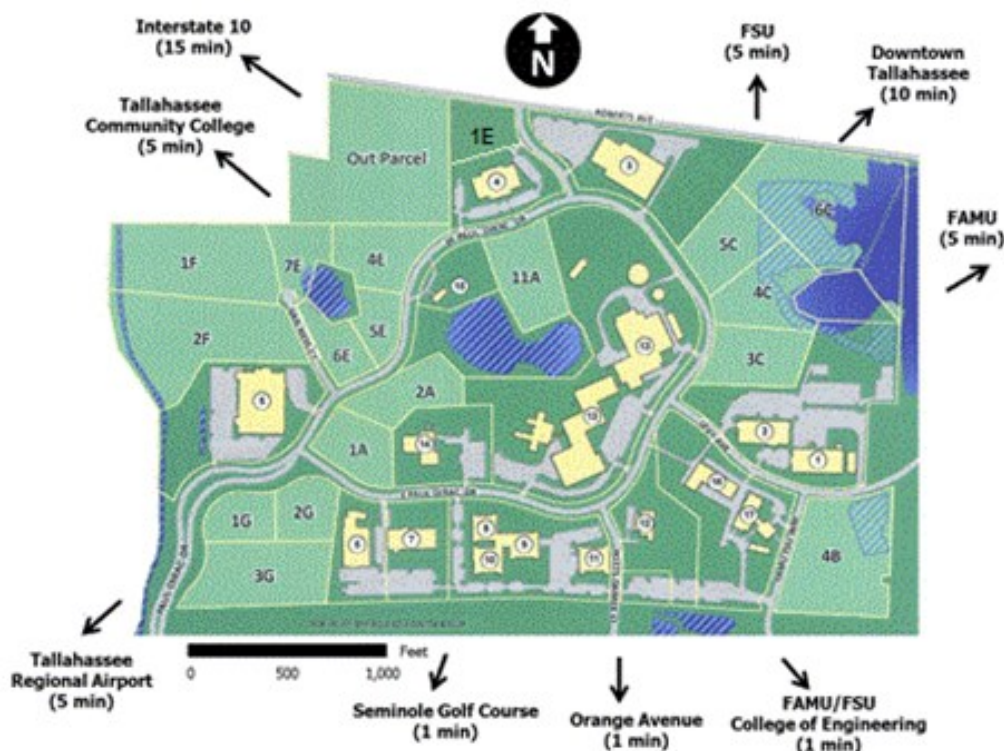
Tallahassee Innovation Park (Industrial Land)



- Innovation Park is a 208-acre center on the southwest side of Tallahassee, located close to Florida State University, Florida A&M University, government facilities, and the Tallahassee International Airport.
- Innovation Park was open for business in 1982 and welcomed its first tenant, the Northwest Regional Data Center (NWRDC)
- Since the National Mag Lab's arrival, Innovation Park has grown to become an innovation hub for magnetics, aero-

propulsion, materials, energy, health, and life sciences. The Park is currently home to 13 Centers of Excellence, which are setting precedents in their industries.

- Fast Forward 40 years, Innovation Park has grown to include 17 buildings, and more than 32 organizations. The Park has no plans to slow down, with room for expansion and development, including the planned construction of an incubator/ business accelerator, newly renovated office and wet lab space, and other mixed-use projects.
- Innovation Park of Tallahassee currently boasts over 1 million square feet of space in 17 buildings housing 30+ different organizations, ranging from preeminent university research facilities, to specialty manufacturing companies, to state and federal government research facilities.



Source: Map of buildings and parcels. Innovation Park of Tallahassee.

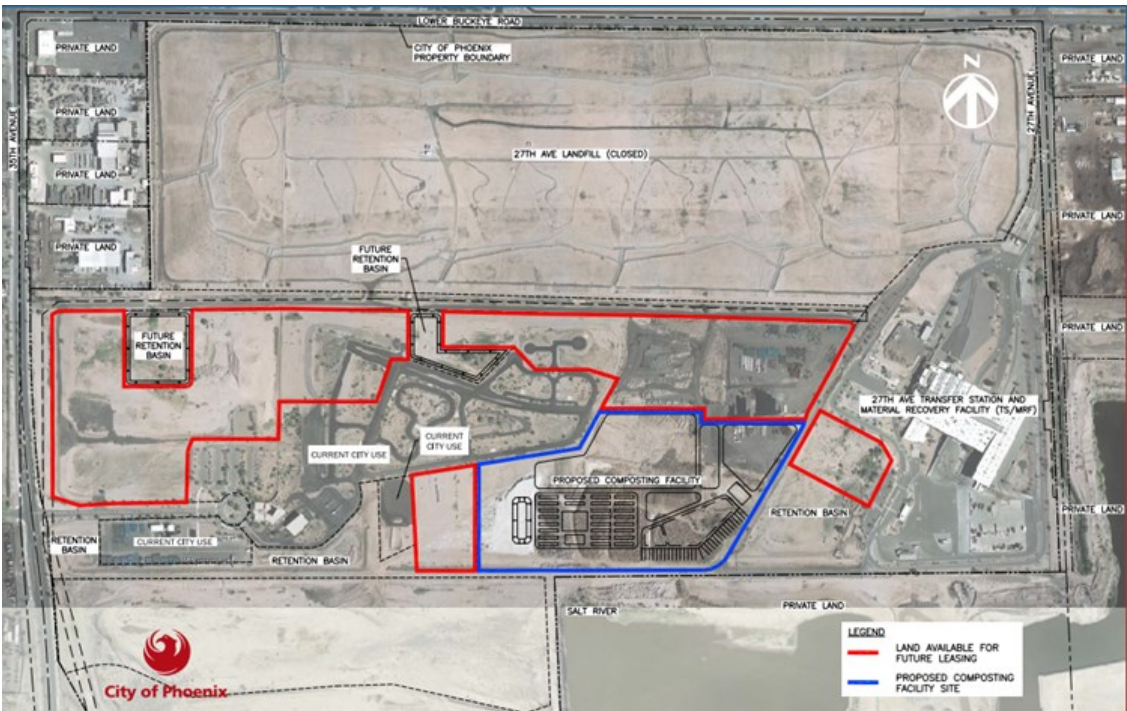


Nationwide Comps

City of Phoenix/Arizona State University (ASU) Resource Innovation Campus (Industrial Land)



- In 2013, City of Phoenix announced a new citywide sustainability initiative, Reimagine Phoenix, to divert 40 percent of waste from the city landfill by 2020.
 - Resource Innovation Campus. Located on approximately 40 acres of land adjacent to the City’s 27th Avenue Transfer Station.
 - A home for valuable public-private partnerships featuring land leases at attractive rates, infrastructure support and
- access to feed stock coming through the city of Phoenix waste streams.
 - The Campus attracts innovators with manufacturing processes and conversion technologies to use trash as a resource. These innovators are also fueling the generation of new manufacturing jobs at the RIC and throughout the community.
 - A hub for innovators building Phoenix’s circular economy and generating economic development.
 - The RISN Incubator is a niche business accelerator for entrepreneurs in the early stages of waste-to-product innovation with the goal of moving a Circular Economy in the Phoenix area forward further and faster.



Source: Map of Resource Innovation Campus . City of Phoenix Public Works/ASU Resource Innovation and Solutions Network.



Ground Leases

A lease is a temporary right to use of real estate or property in exchange for payment or rent.

In a ground lease, the owner of the ground leases the right to use that land to a second party, who is obligated to build a structure on it. Since the second party owns the structure, the ground lease, in effect, separates the ownership of the land from the building for a set period of time. (Source: Society of Industrial and Office Realtors® Foundation)

Lease Period

A ground lease involves leasing land for a long-term period—typically for 50 to 99 years—to a tenant who construct a building(s) on the property. Medium term leases are defined to be 55 years, while 75 or 99 years would be considered long-term (Society of Industrial and Office Realtors® Foundation)

Some of the fundamentals of any ground lease should include:

- Terms of the lease.
- Rights of both the landlord and tenant.
- Conditions on financing.
- Use provisions.
- Fees.
- Title insurance.
- Default.

Benefits of Ground Lease Model

Tenant benefits of ground leases:

- Tenant is not required to make a down payment for securing the land, therefore, less equity is involved freeing cash for other purposes.
- Rent paid on ground lease may be deductible for federal income taxes, reducing the tenant's overall tax burden.

Landlord benefits of ground leases

- Retain control over the property including its use and how it is developed.
- Steady stream of income from the tenant while retaining ownership of the property.
- Typically contains an escalation clause that guarantees increases in rent.
- Contains eviction rights that provide protection in case of default on rent or other expenses.



Absorption Rate Forecast

Absorption rate for this plan refers to the net change in occupied space over a given period of time, calculated by summing all the positive changes in occupancy (move ins) and subtracting all the negative changes in occupancy (move outs).

In order to estimate an absorption rate forecast for the property, an analysis has been made of a similar industrial sites.

To calculate an absorption rate for the Eco-Industrial Park, the closest comparable property in geographic terms is the Airport Industrial Park, managed by the City of Gainesville, and located in East Gainesville. The closest comparable property regarding business model is the Innovation Park of Tallahassee, managed by the Leon County R&D authority.

Airport Industrial Park, on average, performed roughly at a 4.25% absorption rate over a 20-year period which started in the late 1990's. This time period included the dot-com bubble recession in the early 2000's, and the great recession of 2008.

Similar numbers may be found at the Innovation Park of Tallahassee. This park posted, on average, a 5.4% absorption rate over a 37-year period which started in the early 1980's.

Lease Rate Pricing

In order to estimate a lease rate for the property, an analysis has been made of current rental rates for sites in the local area with similar sites located state and nationwide. Four comparable rentals have been included in the analysis.

- Gainesville Airport Business Park
- Tallahassee Innovation Park
- Ft. Lauderdale Airport Industrial Park
- ASU Resource Innovation & Solutions Network

Based on this, the rent for the subject property was estimated at:

\$0.18 annual rent per square foot/per year or \$8,030 annual rent per acre/per year on a net lease basis with a 4% escalator every year.

EIP Lease Rate

**\$0.18 per Square Foot
or
\$8,030 per Acre**

Industrial Land Comp Grid

Site: Eco-Industrial Park Shovel-Ready Sites

Date: January 2020

	Subject	Comparable 1	Comparable 2	Comparable 3	Comparable 4
Property Name	Eco-Industrial Park	GNV Airport Business Park	Tallahassee Innovation Park	Ft. Lauderdale Airport Industrial Park	ASU Resource Innov & Solutions Network
Annual Rent/SqFt/Yr	\$0.18	\$0.147	\$0.150	\$0.650	\$0.71
Annual Rent/Acre/Yr	\$8,030.0	\$6,414.1	\$6,534.0	\$28,314.0	\$30,927.6

Notes:

GNV Airport Business Park

Numbers generated in 2014

Ft. Lauderdale Airport Industrial Park

Numbers generated in 2017

Financials

Investment to Date

To date, Alachua County has invested \$4,685,746 million in land and horizontal infrastructure.

Construction	\$1,664,138
Land Acquisition	\$1,500,000
Land Improvement	\$ 884,459
Other	<u>\$ 637,149</u>
Total	\$4,685,746

University of Florida Support

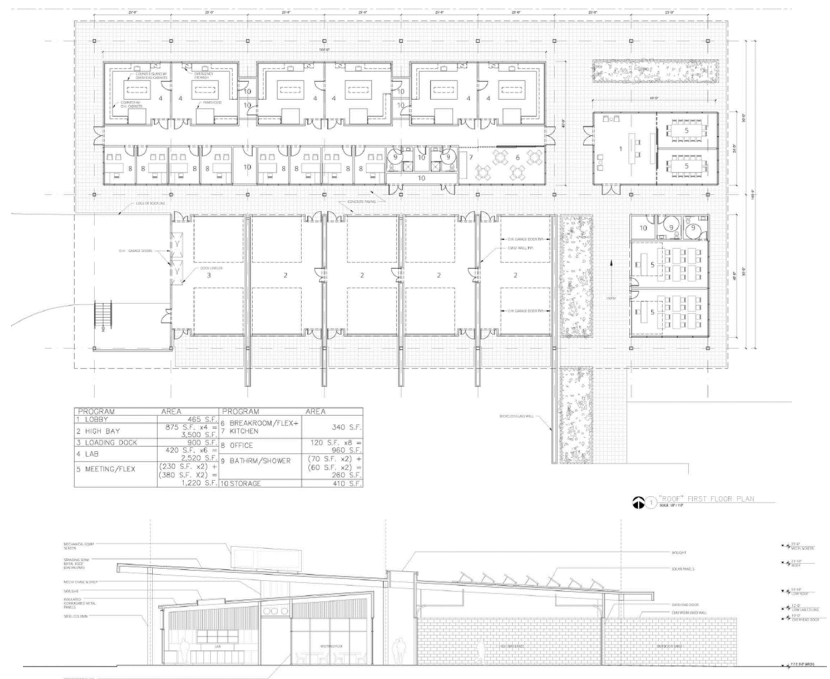
The University of Florida pledged \$100,000 to the architectural design of the Research Core, as well as an additional \$50,000 in seed funding to create challenge grants for faculty research projects related to the Research Hub.

Potential Funding Sources for Future Construction Phases

- Florida Job Growth Grant Fund (State of Florida)
- U.S. Economic Development Administration (EDA) Grants



Source: Alachua County. Eco-Industrial Park Groundbreaking.



Source: Research Core Architectural Schematic Design Package.

Pro Forma

Operations Pro Forma Income Statement

Pro Forma Income Statement

Site: Eco-Industrial Park Shovel-Ready Sites

Date: January 2020

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Income										
Gross Potential Income	\$248,927	\$258,884	\$269,240	\$280,009	\$291,210	\$302,858	\$314,972	\$327,571	\$340,674	\$354,301
MINUS Vacancy and Collection	\$248,927	\$258,884	\$255,778	\$252,708	\$248,625	\$244,607	\$240,654	\$236,765	\$232,939	\$229,175
Net Rent Revenue	\$0	\$0	\$13,462	\$27,301	\$42,585	\$58,251	\$74,318	\$90,806	\$107,735	\$125,126
PLUS Miscellaneous Income	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PLUS Expense Reimbursement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Effective Gross Income (EGI)	\$0	\$0	\$13,462	\$27,301	\$42,585	\$58,251	\$74,318	\$90,806	\$107,735	\$125,126

Operating Expenses	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Real Estate Services	\$20,000	\$20,400	\$20,808	\$21,224	\$21,649	\$22,082	\$22,523	\$22,974	\$23,433	\$23,902
Marketing Campaign	\$250,000	\$250,000	\$200,000	\$200,000	\$150,000	\$150,000	\$100,000	\$75,000	\$50,000	\$50,000
Landscape Maintenance	\$1,500	\$1,530	\$1,561	\$1,592	\$1,624	\$1,656	\$1,689	\$1,723	\$1,757	\$1,793
Tree Trimming	\$0	\$5,600	\$5,712	\$5,826	\$5,943	\$6,062	\$6,183	\$6,307	\$6,433	\$6,561
Stormwater Maintenance	\$0	\$1,000	\$1,020	\$1,040	\$1,061	\$1,082	\$1,104	\$1,126	\$1,149	\$1,172
Security	\$0	\$0	\$5,200	\$5,304	\$5,410	\$5,518	\$5,629	\$5,741	\$5,856	\$5,973
Other Maintenance										
TOTAL EXPENSES	\$271,500	\$278,530	\$234,301	\$234,987	\$185,686	\$186,400	\$137,128	\$112,871	\$88,628	\$89,401
Net Operating Income	-\$271,500	-\$278,530	-\$220,839	-\$207,686	-\$143,101	-\$128,149	-\$62,810	-\$22,064	\$19,107	\$35,726

Assumptions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Annual Rent/Acre/Yr	\$8,030	\$8,351	\$8,685	\$9,033	\$9,394	\$9,770	\$10,160	\$10,567	\$10,989	\$11,429
Annual Rent/SqFt/Yr	\$0.18	\$0.19	\$0.20	\$0.21	\$0.22	\$0.22	\$0.23	\$0.24	\$0.25	\$0.26
Total Available Acreage Leased	31	31	29.5	28	26.5	25	23.7	22.4	21.2	20.1
Lease Bump Pct	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Absorption Rate	0%	5%	5%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%

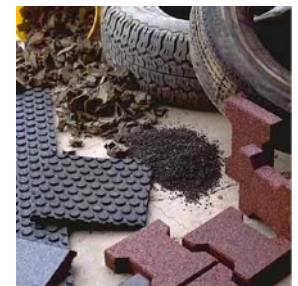
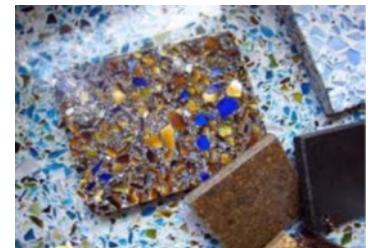
Market Potential

Prospective Industrial Tenants for Shovel-Ready Parcels

Without a formal marketing plan in deployment, several companies have approached Alachua County and expressed their interest in locating facilities at this site. Many also expressed an interest in the opportunity to interact with scientists and researchers at the University of Florida. These companies business plans depend upon access to the recyclable commodities from Alachua County and the Southeast US region.

Alachua County has identified several target commodities for use by the circular economy and waste-based industries that will ultimately reside within the park. These target commodities include: tires, glass, plastics, textiles, paper and fiber products, carpet, mattresses, scrap metals, recovered building materials, and electronic waste.

Prospective tenants include both processors that collect, store, recover, and resell target materials as well as manufacturers of new recycled-product goods using recovered materials. Potential tenants are expected to cover a range of sizes up to large operations such as recycled paper manufacturing as well as independent artisans creating artworks from recovered materials.





Classifying Industry Leads

The following North American Industry Classification System (NAICS) codes list illustrates the breadth industry jobs in the recycling and recycling-related manufacturing that will be attracted or incubated in the Eco-Industrial Park.

NAICS cods is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy

The list is by no means an exhaustive catalog of all the potential industry and industry job types.

- 325220 Artificial and synthetic fibers and filaments manufacturing
- 326112 Plastics packaging materials and unlaminated film and sheet manufacturing
- 326160 Plastics bottle manufacturing
- 326199 Other plastics product manufacturing
- 326220 Rubber and plastics hoses and belting manufacturing
- 327390 Other concrete product manufacturing
- 313 Textile Manufacturing
- 321 Wood Product Manufacturing
- 326 Plastics and Rubber Product Manufacturing
- 322 Paper Manufacturing
- 3221 Pulp, Paper, and Paperboard Mills
- 327215 Glass Product Manufacturing Made of Purchased Glass
- 3314 Nonferrous Metal Production
- 337 Furniture and Related Product Manufacturing

- 337122 Nonupholstered wood household furniture manufacturing
- 423930 Recyclable Material Merchant Wholesalers
- 425110 Business to Business Electronic Market
- 562111 Solid Waste Collection
- 562920 Materials Recovery Facilities (MRFs)
- 711510 Independent artists, writers, and performers



Economic Impact



ECONOMIC IMPACT ANALYSIS PROGRAM

Total impacts

- Sum of Direct, Indirect, and Induced impacts

Jobs generated at the EIP will be primarily, but not exclusively, focused in manufacturing and are expected to pay above the region's service wages with benefits.

An Economic impact analyses was performed by University of Florida-IFAS, Food and Resource Economics Department. The study was performed by Christa D. Court, PhD, and Alan W. Hodges, PhD.

The study estimates the potential total economic impacts of the Eco-Industrial Park in the following phases:

- Site Development
- Tenant Build-outs
- Operation and Maintenance

Direct impacts

- Measure of the size or value of the existing activity in the industry in question

Indirect impacts

- Measure of the inter-industry transactions that take place throughout multiple rounds of supply chain spending

Induced impacts

- Measure of the spending of employee wages and government revenues that stem from wages paid and revenues collected as a result of both direct and indirect impacts

Construction jobs related to businesses building out the site are estimated to be in the range of 1,850-to-1,943 full- and part-time positions, with direct employment of 641-to-672 jobs.

Once construction is complete, ongoing jobs supported by the park will be in the range of 2,069-to-3,337 full- and part-time positions with a direct employment of 281-471 jobs.



Potential Total Economic Impacts

Site Development

- 86 fulltime and part-time jobs supported
- Direct employment for site construction: 28 jobs.
- Average labor income per employee: ~ \$48,000.
- \$6.6 million in value added (GSP) supported
- \$433,000 in state and local tax revenue impacts.

Tenants (Processor Scenario)

- Potential tenants were selected from the bottom of the ranked list until 25 of the 37 acres of space was developed.
- 12 tenants.

Tenants (Manufacturer Scenario)

- Potential tenants were selected from the top of the ranked list until 25 of the 37 acres of space was developed.
- 3 tenants.

Tenant Buildouts

- 1,850 – 1,943 fulltime and part-time jobs supported.
- Direct employment: 641-672 jobs
- Average labor income per employee: ~ \$49,000.
- \$143.4 – 150.6 million in value added (GSP) supported.
- \$8.9 – 9.3 million in state and local tax revenue impacts.

Operation and Maintenance

- 2,069 – 3,337 fulltime and part-time jobs supported.
- Direct employment for operation: 281-471 jobs.
- Average labor income per employee: ~ \$50,800 - \$57,600.
- \$176.7 – \$320.4 million in value added (GSP) supported.
- \$11.9 – \$24.6 million in state and local tax revenue impacts.



Background

Waste as a Growing Problem & Innovation Opportunity

Global generation of waste is generally correlated with income levels and urbanization rates. Statistics on waste published by the World Bank are based on development projections using two factors: gross domestic product (GDP) and population growth. With a growing populace and economy, North America is projected to increase waste production in the future. In 2016 alone, North America generated 289 million tons of waste.

Food and green waste accounts for less than 30% of the total waste composition in North America. Paper and cardboard represent 28% of the waste stream, and 12% consists of plastic. The rest accounts for dry materials such as rubber, leather, glass, and wood with low percentage values.

Waste in any process represents an inefficiency in production and consumption. Communities recognizing this problem promoted simplistic, and at the time economically preferred single stream (mixed material) recycling programs where all recyclable materials were mixed in one bin. These bundled and often contaminated materials initially had ready markets in China. China used this commodity as the raw

material for many products, utilizing what it needed to create value-added products and then exporting them to the United States and around the globe. However, the residuals from the contaminated materials remained in China. Inundated with poor, unsorted, and contaminated commodity bundles, in 2013 China enacted its Green Fence policy, and in 2017 strengthened it as the renamed National Sword policy (WATSON, 2018).

With the National Sword policy, the global dynamic of recycling has fundamentally changed. This in turn has opened new economic and research and development opportunities.

An emerging field of study, into the Circular Economy of materials is beginning to take root. Small scale re-utilization of waste represents part of this new growth; using resources multiple times in value-added products which would otherwise be thrown away. A Circular Economy of materials maximizes the utility of the material in its highest and best form for as long as possible. Products are built to last, be repaired, reused and when necessary deconstructed for upcycling. The Circular Economy stands in contrast to the linear model of resource consumption that follows a take-make-dispose pattern.



Because of consumer concerns for pollution, many companies have begun to notice that this linear system increases their exposure to risks—most notably higher resource prices and supply disruptions. (Cowes: Ellen MacArthur Foundation., 2012). A “take-make-dispose” model is viewed as outdated because of pollution, producer responsibility requirements, and regulatory intervention. In its place is an economic opportunity for the U.S. to be at the forefront in creating the businesses and physical processes that contribute to a material use model that is circular and regenerative.

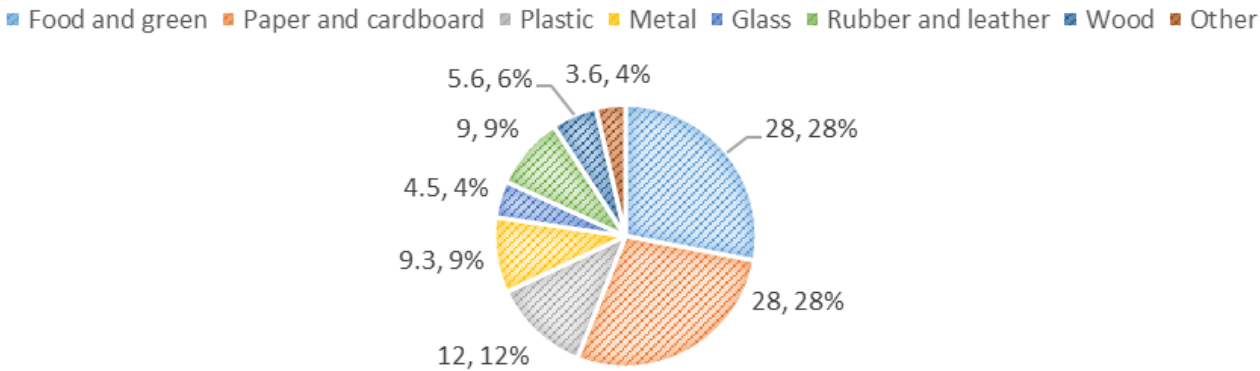
International Conventions in the Trade of Plastic Waste are increasingly regulated to prevent pollution. (U.N. Environment, 2019) These regulations bring greater scrutiny and costs to businesses that produce and process these materials as waste. Worldwide, the regulatory environment is tightening as governments face the cost of waste disposal and

push this cost onto companies. China, for example, has for a long time been promoting circular-economy principles mainly in its business to business industries but has not yet addressed the consumer environment. China is about to change that, and the country is accelerating its circular-economy transition disrupting worldwide markets (World Bank, March 2012) . China no longer buys waste from other nations as it moves to using its own resources and applies more Circular Economy principles to its production practices.

A way to build resilience in the face of these uncertainties is to adopt a more efficient way of utilizing resources. The U.S. is facing a transformative moment as a new mindset for business is emerging.

The U.S. economy has the potential to better-utilize waste as a raw material for value-added products and build new, domestic manufacturing industries.

WASTE COMPOSITION IN NORTH AMERICA
(PERCENT VALUES)





State & National Recycling Market Overview

The increase in the amount of waste generated in Florida is due in great part to the rapid increase in population and urbanization. According to the Florida Strategic Plan for Economic Development, the state remains in the top five nationally as a desirable place to live and visit. Florida has more than 1,300 miles of coastline, 7,700 lakes, 1,700 rivers and streams, and more than 1,000 springs. Florida welcomed 116.5 million visitors in 2017, twelve per cent of whom were internationally based. Tourism generated 9.5% of Florida's GDP and 17.1% of total employment in 2016. (The Economic Impact of Out-of State visitors in Florida., 2018)

The large number of visitors and newcomers are putting additional stress on Florida's environment. The surge in solid waste has also intensified the need for different strategies for waste disposal. Strengthening, protecting, and preserving Florida's natural resources and quality of life assets must be balanced with addressing specific opportunities and threats faced in the next years of economic growth.

With these principles in mind, the Florida Legislature, through the Energy, Climate Change and Economic Security Act of 2008, established a statewide weight-based recycling goal. The Act instituted a 75% recycling goal by the year 2020, with benchmarks along the way, directed the Florida Department of Environmental Protection (DEP) to establish a reporting

protocol, and directed counties to report annually on the amount of waste generated within their boundaries, the source of this waste, and its final disposition. Recycling in Florida, nationally, and internationally have changed significantly over the last ten years. Many of the challenges we currently face with recycling have occurred as a result of changes in collection methods, shifts in the recycling markets, and new and lighter weight packaging.

Given these challenges and others detailed in the report, the current practices in Florida are not expected to significantly increase the recycling rate beyond the State's current rate of 56%; causing it to level off. Without significant changes to our current approach, Florida's recycling rate will fall short of the 2020 goal of 75%." (Florida Department of Environmental Protection, 2018).

To achieve Florida's recycling goals, and according to the State's Strategic Plan for Economic Development 2018-2023, local, regional, and state governments must partner with research institutions and private industry for the protection, provision, and resiliency of resources and infrastructure. Sustainable economic growth requires protecting the environment since development and the environment are intertwined. Additionally, Florida's natural environment is the source of much of Florida's financial strength. The State recognized that the best strategic plan is one that acknowledges that land, water, cultural assets, and natural resources are at risk from overuse and development choices.



In 2012, the recycling industry began to see a decline in recycling commodity markets. Declines are usually cyclical, however, this market downturn has seen only a nominal recovery. Several conditions contributed to this financial decline. First, poor quality of recyclable commodities from single stream communities has depressed markets. These high contamination rates lead to higher restrictions and stricter quality control measures by major receiving countries (China Green Fence Program is the most notable). In the end the markets are filled with excessive-poor quality supplies and less overall demand.

The State of Florida Market Overview

Florida is home to nearly 21 million people and ranks third in the U.S. population. Florida is also known for a robust tourism economy attracting millions of visitors each year.

As a result of both Florida's growing population and tourism, significant amounts of waste are produced each year. Every year, Florida's 20 million residents and about 113 million visitors generate 37 million tons of municipal solid waste. (Florida Department of Environmental Protection, 2018).

Florida can make better use of this waste stream and develop a profitable economic model. To utilize all these raw materials, Florida would need to support a cross-disciplinary ecosystem for manufacturing

entrepreneurs and related research dedicated to the recycling and reuse waste material. The State has a critical role to play to invest in industries and research found at the local level and universities at the forefront of these research and development efforts.

Local Recycling Market Overview

The Alachua County solid waste system has a number of strengths and is considered a model of integrated solid waste management by many other jurisdictions. Alachua County's rates have met or exceeded local government incremental goals set by the Florida Department of Environmental Protection from the inception of the statute.

Alachua County utilizes a dual stream system for the collection of our recycling commodities. This results in a higher quality of materials.

Moving beyond current rates of recycling will need the investment of the EIP in addition to the recruitment of private sector industries and University expertise.



The State of Florida enacted a 75% Recycling Goal by the year 2020. Though not at 75%, Alachua County remained in the top ten (holding the number one position in traditional recycling for three years) and is second in the state for those counties with renewable energy, coming in seventh overall out of 67 counties. As of 2019, Alachua County's rate was 61%.



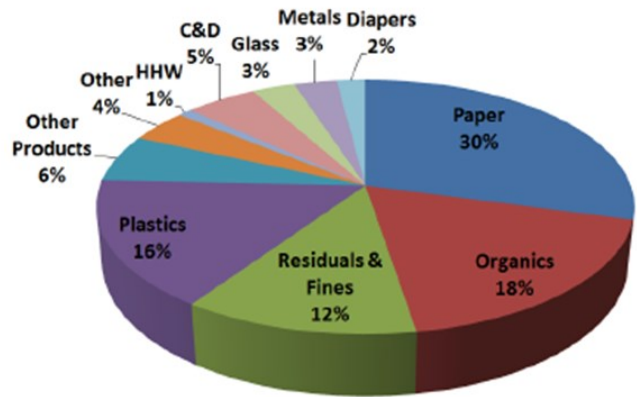
The Leveda Brown Environmental Park and Transfer Station is the hub of the Department of Solid Waste and Resource Recovery. This facility is responsible for the safe and efficient management of all municipal solid waste and much of the recycling generated within Alachua County. These materials are delivered to the facility from public and private vendors, as well as individual citizens.

The County manages approximately 178,000 tons of solid waste and 12,000 tons of recycling per year. In December of 2014, Alachua County assumed the operation of a Materials Recovery Facility formerly run by SP Recycling Corporation. The facility also hosts the Alachua County Environmental Protection Hazardous Waste Facility.


Alachua County has led the way on waste recycling:

- Among the first in Florida to have curbside recycling, beginning in 1989.
- Implemented the first pay-as-you-throw garbage cart system which incentivized recycling and waste reduction starting in 1994.
- In 2001, became one of the few counties to have a mandatory commercial recycling ordinance.
- Among the top 5 in the State for recycling, with a rate of 68%.

Alachua County Waste Composition 2010:



Source: 2010 Waste composition study. Alachua County Solid Waste & Resource Recovery.



Current Waste Practices

In Alachua County, waste is brought to the Transfer Station where it is screened and loaded into long-haul trailers to be taken to the New River Landfill, a public owned and operated facility which is located 35 miles north in Union County. Alachua County maintains an inter-local agreement for disposal with the New River Solid Waste Association. The County also has five Rural Collection Centers located throughout the unincorporated areas. These centers offer citizens alternative disposal sites for limited amounts of municipal solid waste, as well as recycling and limited household hazardous waste drop-off.

Circular Economy

According to the Ellen MacArthur Foundation, the Circular Economy is restorative and regenerative by design, and which aims to keep products, components and materials at their highest utility and value at all times.

Linear economies are based on “take, make, dispose” models that have driven our waste streams to capacity. Circular economies find economic value in the reuse, recycling or repurposing of materials in a potentially endless cycle.

The circular economy is based on three principles:

- Design out waste and pollution
- Keep products and materials in use
- Regenerate natural systems

According to the Ellen MacArthur Foundation, transitioning to a circular economy does not seek to reduce the negative impacts of the linear economy. Rather, it represents a systemic shift that builds:

- **Long-term resilience**
- **Generates business and economic opportunities**
- **Provides environmental and societal benefits.**

"A circular economy represents a strong and positive economic opportunity. By keeping materials in the economy for longer, we can actually recover trillions of dollars of material value that today is being landfilled or incinerated, or lost out of the economy very quickly. And it's also an innovation opportunity. Companies that get ahead of this can innovate towards new types of economic growth that are restorative and regenerative by design."

- Andrew Morlet, Ellen MacArthur Foundation's CEO.

Circular Economy System

What is a circular economy?

A framework for an economy that is restorative and regenerative by design.

OUTLINE OF A CIRCULAR ECONOMY

PRINCIPLE

1

Preserve and enhance natural capital by controlling finite stocks and balancing renewable resource flows
ReSOLVE levers: regenerate, virtualise, exchange

PRINCIPLE

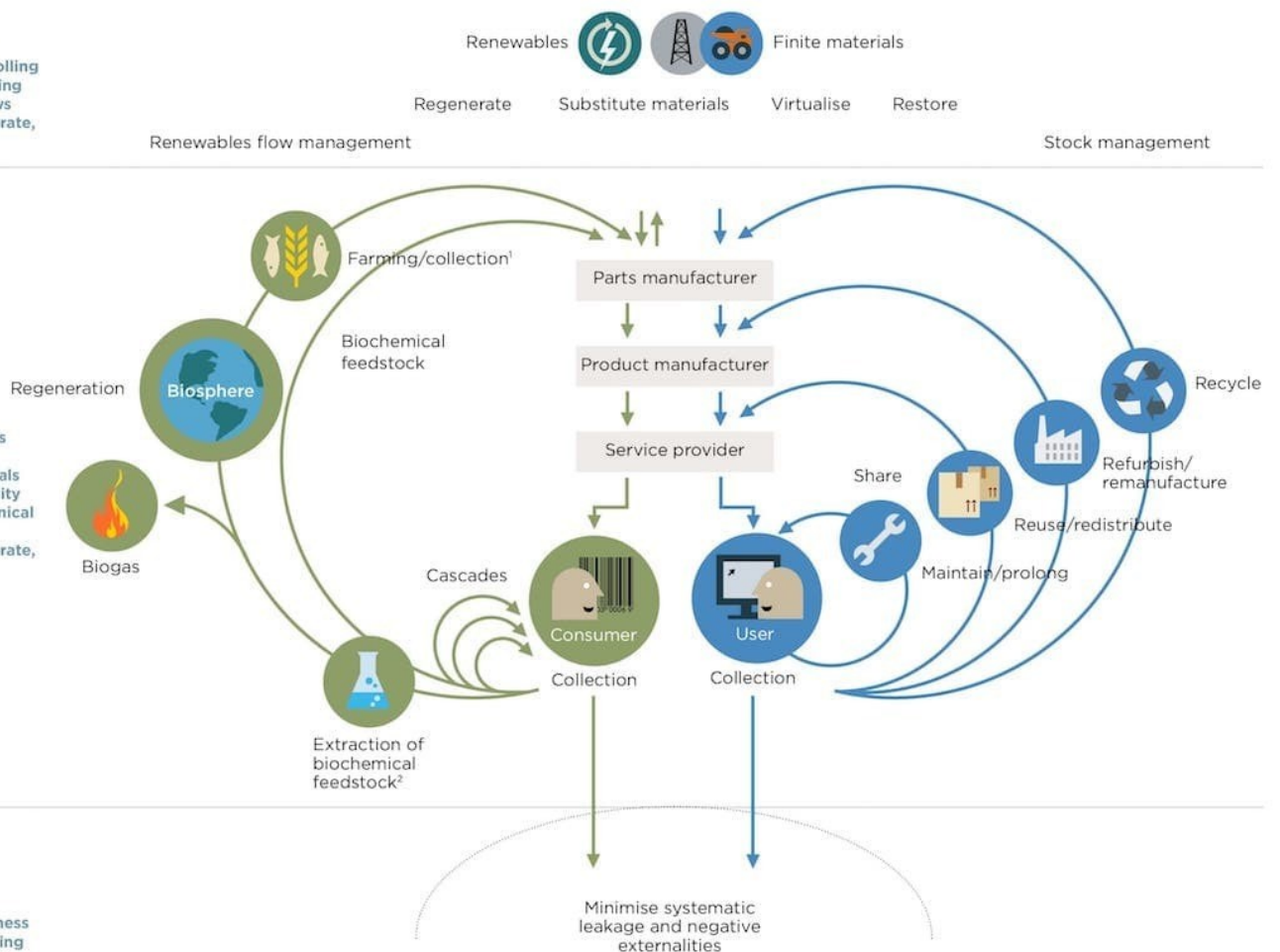
2

Optimise resource yields by circulating products, components and materials in use at the highest utility at all times in both technical and biological cycles
ReSOLVE levers: regenerate, share, optimise, loop

PRINCIPLE

3

Foster system effectiveness by revealing and designing out negative externalities
All ReSOLVE levers



Source: Ellen MacArthur Foundation, SUN, and McKinsey Center for Business and Environment; Drawing from Braungart & McDonough, Cradle to Cradle (C2C).

Source: Ellen MacArthur Foundation.



Local Assessment

Population

The Gainesville MSA is comprised of Alachua County and Gilchrist Counties, and is located in the central portion of the state. The metro population estimate is 288,212.

City of Gainesville	133,857
Alachua County	269,956
Gainesville MSA	288,212
11-county region	1,961,974
NC Florida Region	4,480,797
Florida	21,299,325

- The Alachua County population is forecast to grow to 309,817 by 2045. (UF Bureau of Economic and Business Research)
- The state of Florida population continues to grow at around 300,000 people per year. The state’s population is estimated to hit about 22 million residents by 2022. (UCF’s Florida & Metro Forecast 2019-2022).
- Since 2014, the state of Florida has been the 3rd most populous state in U.S. For 2019, the estimated population is 21.2 million, and it’s forecast to grow to 27.2 million by 2045 (UF Bureau of Economic and Business Research)

Demographics

Alachua County’s population is relatively young. The County is home to a younger population than the region, state, and nation. Specifically, the college age population comprises more than 20% of the County’s population, and children under 17 make up about 18% of the population. The population in these age groups is expected to grow modestly through 2040.

Educational Attainment

A region’s prosperity depends in large part on the productivity of its educated citizens and skilled workforce. Educational attainment in Alachua County exceeds statewide and national level patterns. Alachua County has a higher percentage of residents age 25 or older with a high school diploma than the state and the nation.

The County is also ahead of the state and the nation in its share of residents holding a bachelor’s degree or higher. According to the U.S. Census American Community Survey 2018, more than 43.6% of the population in the Gainesville MSA has a bachelor’s degree or higher, compared to 30.4% of the population in the state of Florida and 32.6% in the U.S.

Income and Wages

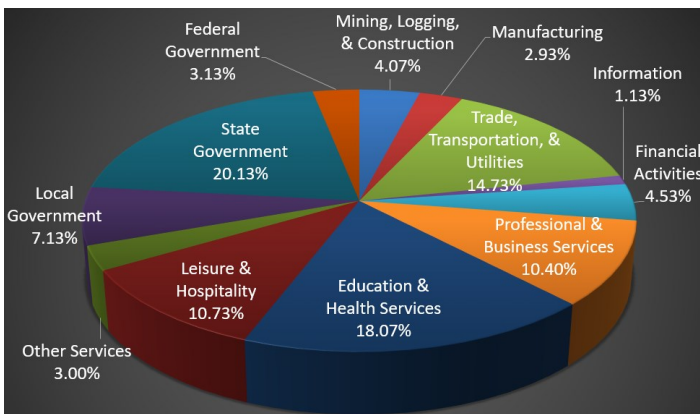
According to statistics from the Bureau of Economic Analysis, Alachua County per capita personal income was \$42,663 in 2018. Income levels in Alachua County are below average compared to state (\$50,070).

According to the U.S. Census Bureau, American Community Survey 2018, median household income in the Alachua County was \$51,241 compared to \$55,462 in Florida and \$61,937 nationwide.

Employment Trends

The Gainesville MSA has a predominant institutional economic base with supporting services-based industries. The University of Florida and the cluster of medical centers are major economic anchors for the region, and the region benefits from their

Nonfarm Employment Distribution by Industry



Source: U.S. Department of Labor, Bureau of Labor Statistic and Department of Economic Opportunities. Preliminary not seasonally adjusted figures as of November 2019. Gainesville MSA includes Alachua and Gilchrist County. NOTE: Items may not add to totals or compute to displayed percentages due to rounding.

stable presence.

Innovation and entrepreneurship are becoming key drivers of Alachua County's economic development activities and contributors to the growth of the local economy. Some of the industries that have been experiencing regional growth due to the development of new high-tech startup activities are medicine, biotechnology, engineering, health, and information systems among other fields.

According to the Bureau of Labor Statistics, in November 2019, the seasonally adjusted unemployment in Gainesville MSA was estimated at 2.9%. The County fares better than the state of Florida (3.1%) and the U.S. (3.5%), a pattern consistent with long-term historical results.

Employment in the area is concentrated in relatively few industries, with more than a third of the workforce in the Education and Health Services and Government sectors. The largest employers in the Gainesville MSA are concentrated in Government related activities, including local, state and federal government, accounting for 30.4% of the workforce. The Education and Health Services industries employ 18.21% of the workforce. (U.S. Bureau of Labor Statistics, November 2019).

In the Gainesville MSA, the manufacturing sector employs a small number of people relative to the total workforce. The manufacturing jobs accounted for 2.9% of total employment compared to 4.2% in the state of Florida, and 8.4% in the U.S. (U.S. Bureau of Labor Statistics, November 2019).

Cost of Living & Doing Business

The ACCRA Cost of Living Index is a measure of living cost differences among urban areas across the country compiled by the Council for Community and Economic Research (C2ER).

The index is widely used by economists, researchers and corporations to measure the relative cost of living, and compares the price of goods and services among areas that participate in the surveys.

The composite index is based on six components: grocery items, housing, utilities, transportation, health care, and miscellaneous goods and services. The average for all participating places, both metropolitan and nonmetropolitan, equals 100, and each participant's index is read as a percentage of the average for all places.

According to C2ER, in the 2017 average, the Cost of Living Index for the Gainesville MSA (including Alachua County and Gilchrist County) was 98.4. This is 1.6% lower than the national average. The six components cost of

living measurements for the Gainesville MSA for the first average of 2017 were: grocery items 104; housing 91.1; utilities 119.3; transportation 103.5; health care 99.8; and miscellaneous goods and services 94.9.

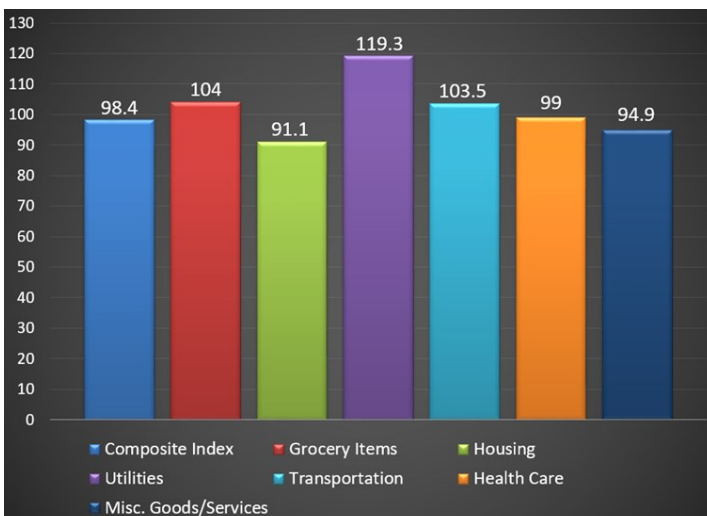
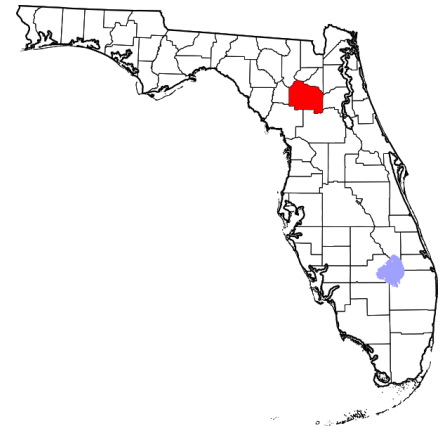
About Alachua County

Alachua County is located in the North Central part of Florida, approximately 85 miles from the Georgia state line, 50 miles from the Gulf of Mexico, and 67 miles from the Atlantic Ocean.

Alachua County is centrally located between major cities including Jacksonville, Orlando and Tampa, midway between Atlanta and Miami. Alachua County's location within North Central Florida draws from a population base of more than 1 million people, and a labor force of more of more than 469,000 people.

Gainesville, the county seat, sits at one of the highest points in Florida, at over 150 feet above sea level.

As the hub of North Central Florida, Alachua County offers world-class performing arts and museums, festivals, crystal blue springs, craft breweries, exceptional dining and shopping, a thriving live music scene, and more.



Source: C2ER, ACCRA Cost of Living Index, 2017 Average.

Site Description

About the Site

The site has many assets that make it attractive to appropriate private investment: proximity to downtown, available land, infrastructure capacity, and appropriate zoning.

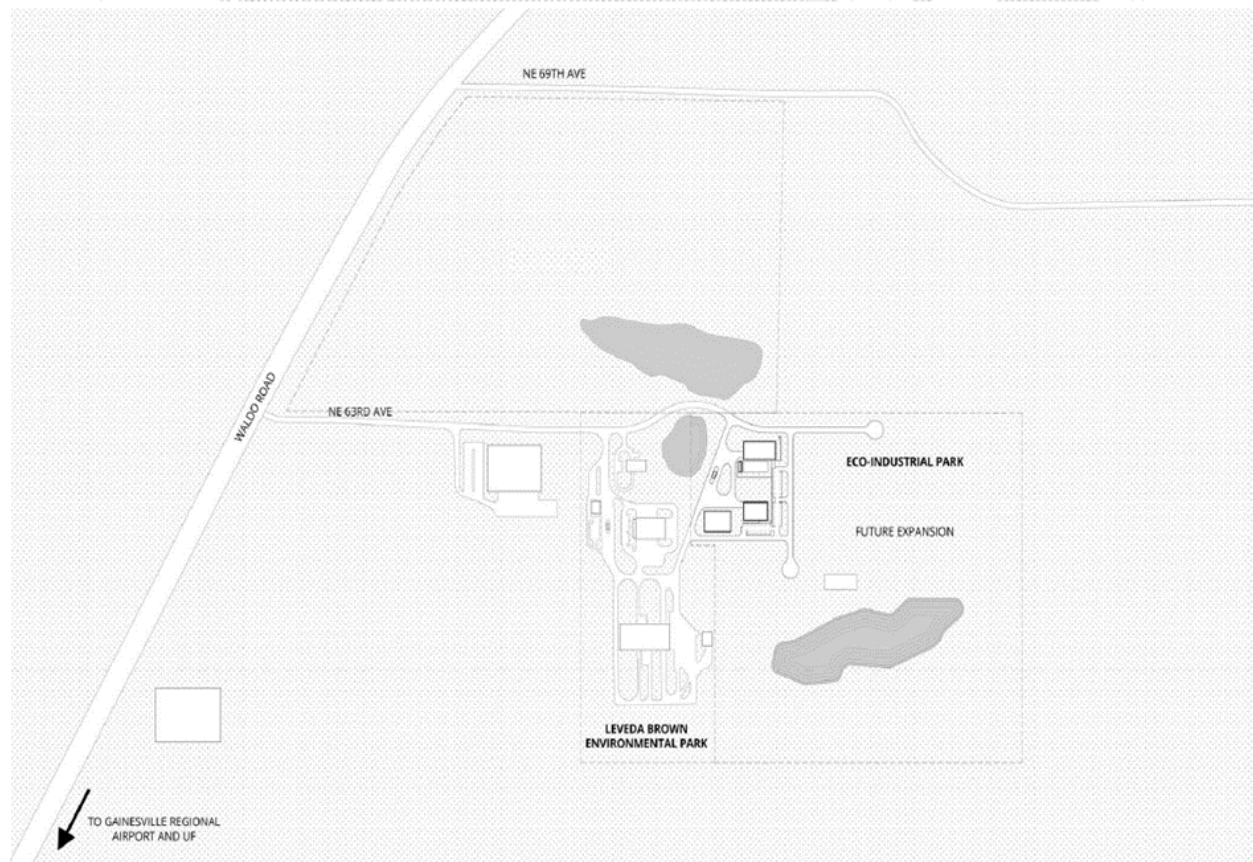
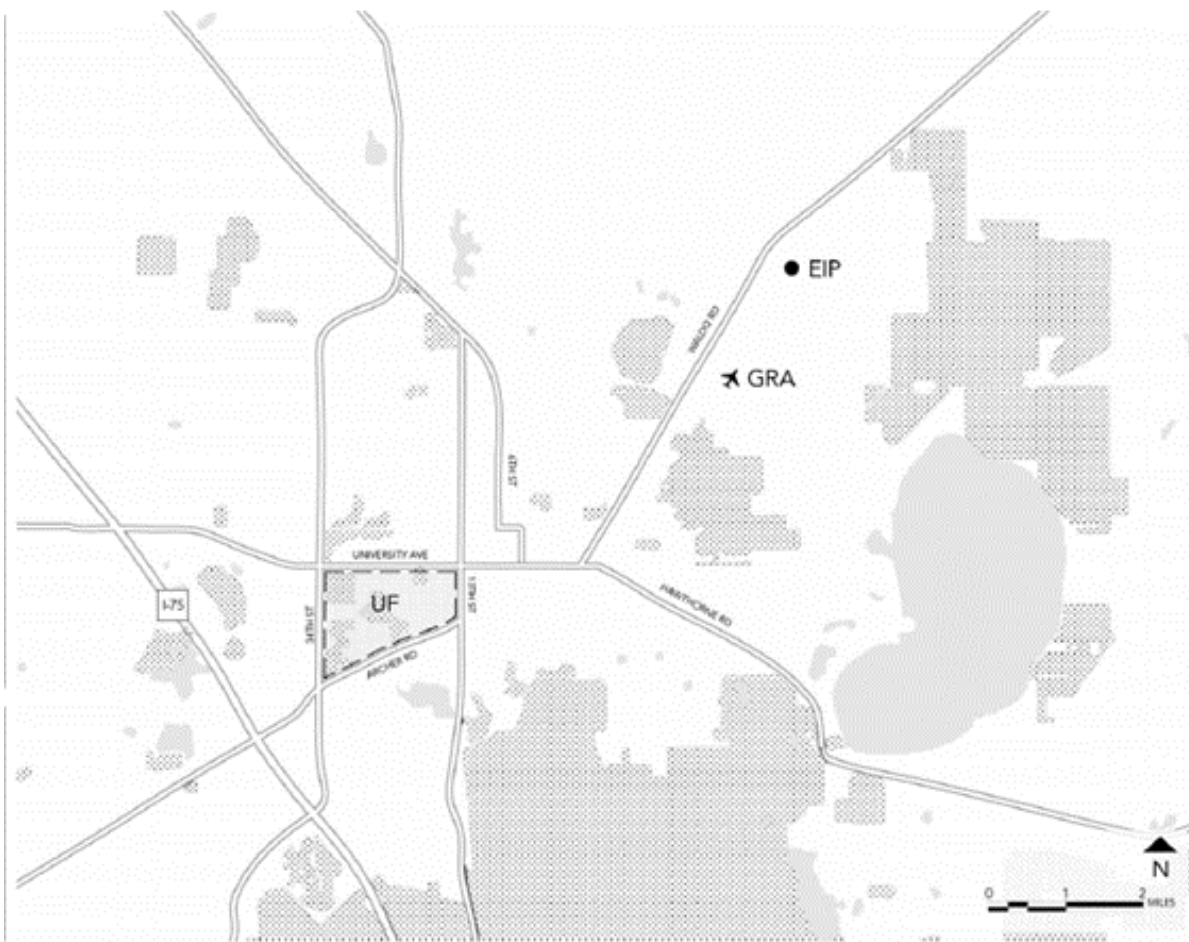
- Located in Northeast Gainesville, with easy access to State Road 24 (Waldo Road), the park adjacent to Alachua County Leveda Brown Environmental Park and Transfer Station.
- The park is located 6 miles from downtown Gainesville, 7 miles from the University of Florida main campus and UF Innovation District.
- The site has easy access to State Roads 24 and 222, Interstate 75 (12 miles), along with US Routes 441 (5.5 miles) and 301 (9 miles).
- The park is just minutes away from the Gainesville Regional Airport and within 130 miles to five international airports, such as Jacksonville, Orlando, Orlando-Sanford, and Tampa.
- The park sits within 150 miles of four major ports, such as JAXPORT, Port of Tampa Bay, Port Canaveral and Port of Brunswick, GA.
- 17 ports can be accessed within nine hours in Florida, Georgia and Alabama.



Distances from Alachua County

Jacksonville, FL	60 miles
Orlando, FL	102 miles
Tampa, FL	119 miles
Tallahassee, FL	130 miles
Savannah, GA	202 miles
Miami, FL	300 miles
Atlanta, GA	310 miles
Dallas, TX	882 miles

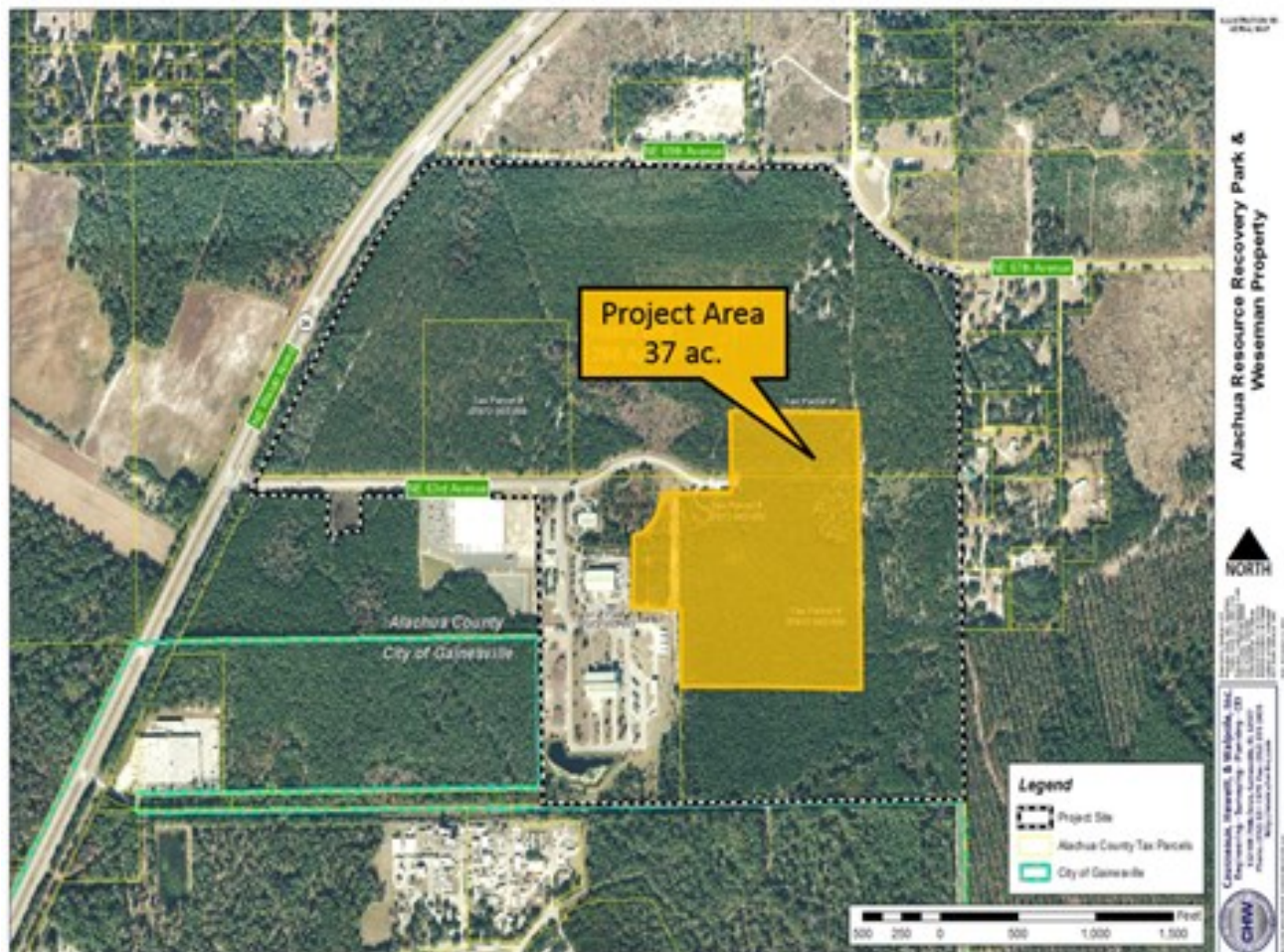
Source: Enterprise Florida, miles are calculated from county seat.



Site Conditions

Site Characteristics

- The park property includes two parcels: parcel numbers 07872-003-009 and 07872-003-005.
- The property lies in unincorporated Alachua County within the City of Gainesville metropolitan area.
- The site lies under the jurisdiction of Alachua County for permitting and development.
- The property lies within Gainesville Regional Utilities (GRU) service area for water, wastewater and electric service.



Site Access

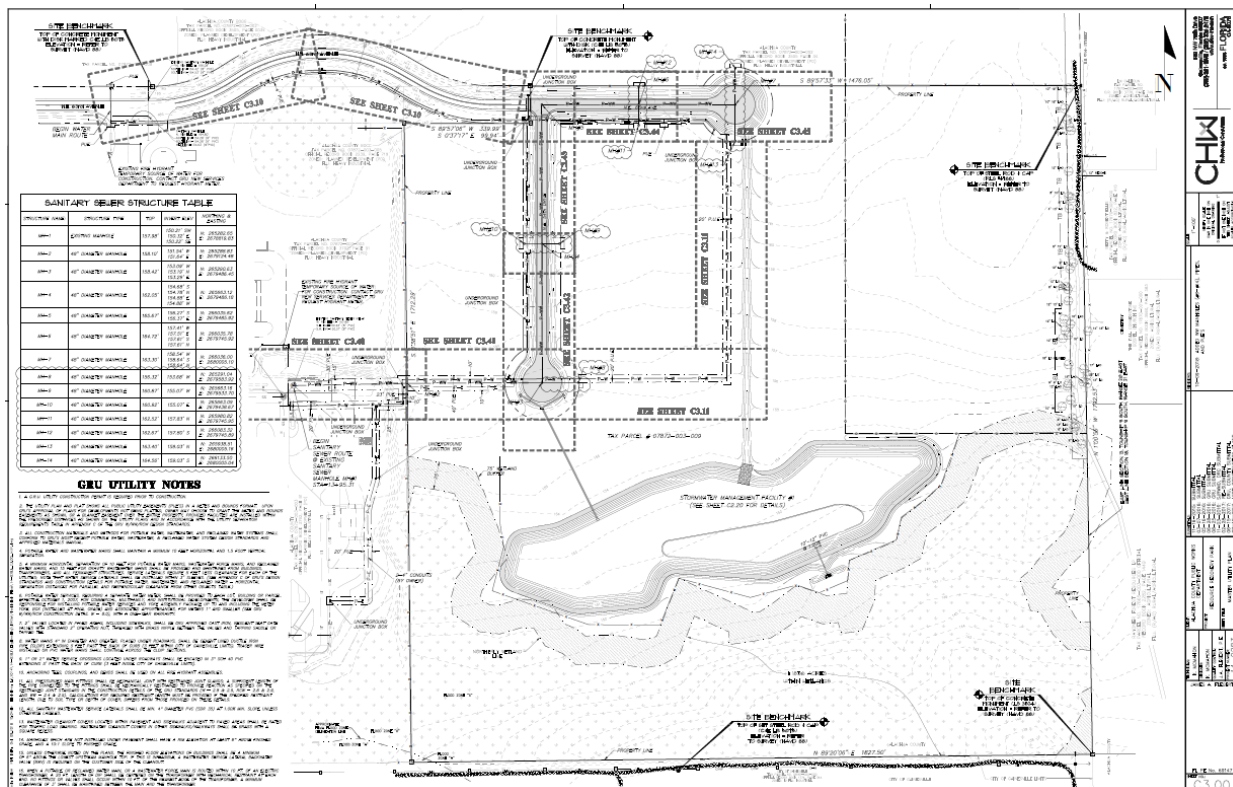
The site faces east and south on NE 63rd Avenue, a two-lane asphalt-paved public road providing average access that connects to Florida State Road 24 (Waldo Road).

Site Utilities

All utilities services are currently available to the site and include electric, telephone, water, sewer, and broadband.

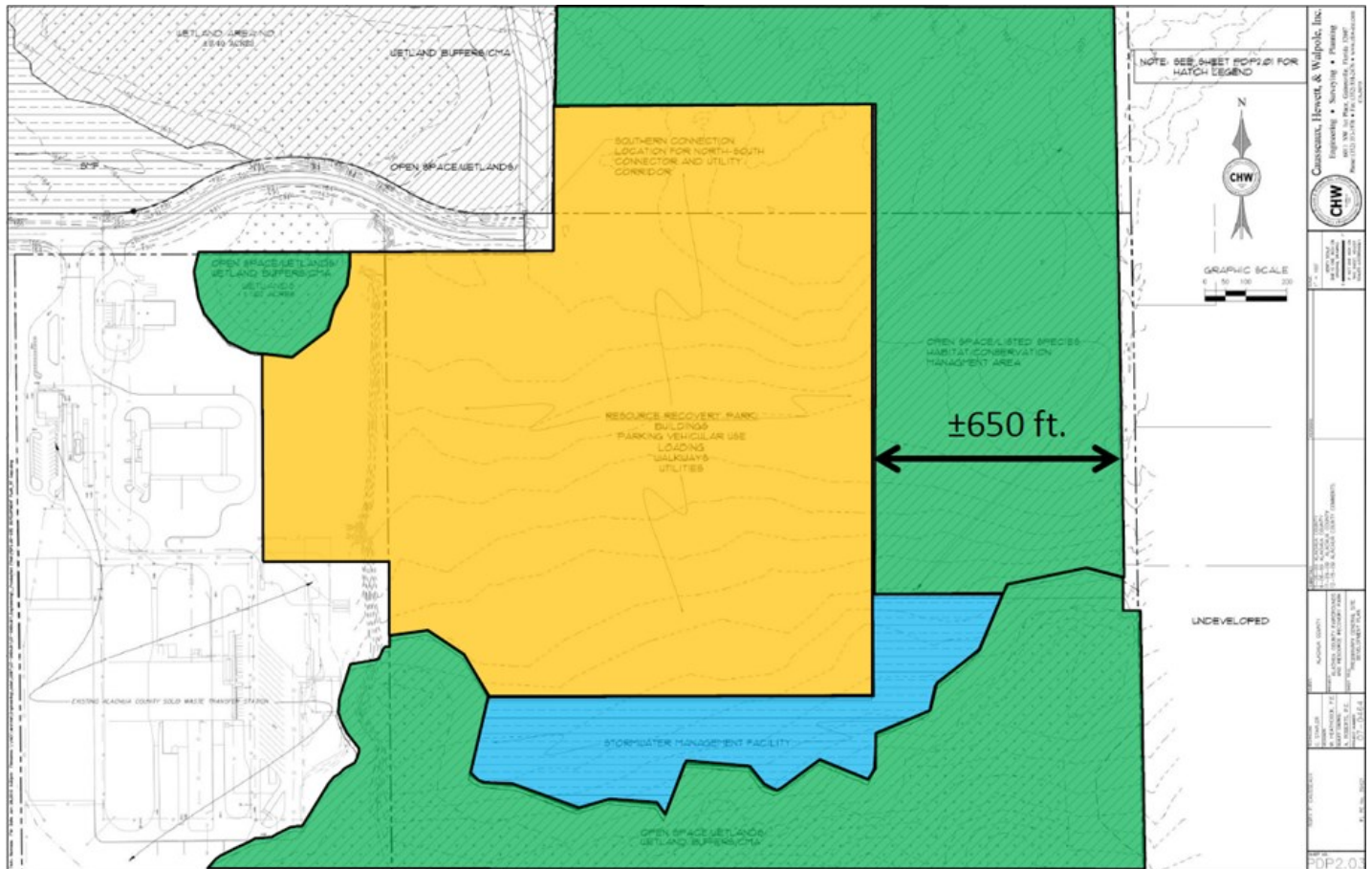
- 8" PVC water mainline
- 8" PVC sanitary sewer mainline
- Stormwater pond
- Wetland mitigation area
- New roadway infrastructure
- 4" PVC electric conduit
- 4" PVC communications conduit (fiber ready)

The property lies within Gainesville Regional Utilities (GRU) service area for water, wastewater and electric service.



Source: Utilities at the site. Alachua County EIP construction documents.

Open Space/Conservation Management Areas





Zoning

- The site is located within both the Urban Cluster and Urban Services Line, connect to centralized potable water and sanitary sewer.
- Zoning District: Planned Development
Future Land Use: Heavy Industrial
- As defined in the Comprehensive Plan Future Land Use Element, the Industrial Land Use classification allows a broad range of industrial activities. The fabrication, manufacturing, transporting, warehousing or distribution of goods generally characterizes industrial developments.
- The improvements to the site conform future land use and zoning designation.
- In December 2016, the Proposed Final Development Plan for the Resource Recovery Plan was found by the Alachua County Development Review Committee to be consistent with: Comprehensive Plan and Land Development Code, Approved PD Zoning Master Plan and PD Resolution.

and safeguard to the surrounding properties and to the residents approaching their properties located along the eastern boundary of the project site.

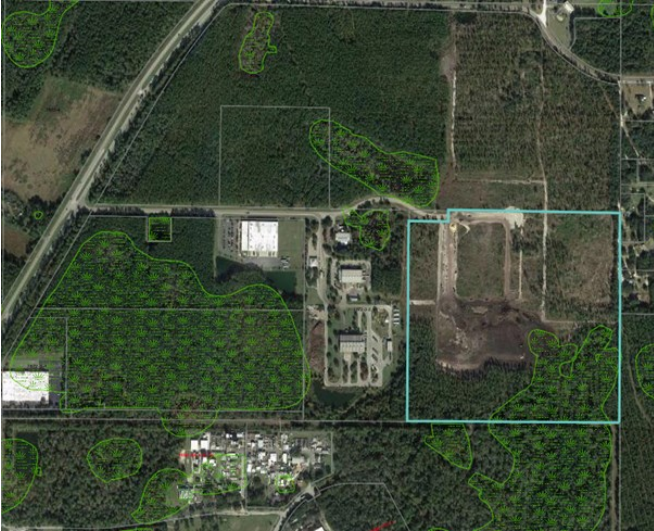
Direction	Future Land Use	Zoning
North	Rural/Agriculture	Agriculture
East	Rural/Agriculture	Agriculture
South	Industrial (County)/ Industrial (City)	Manufacturing and Processing (County)/ Airport Facility (City)
West	Industrial (County)	Manufacturing and Processing (County)

Surrounding Properties Zoning

Land uses to the east of the project sites are rural residential and agricultural in nature, to the west is industrial land utilized for agriculture, to the north is active silviculture, and to the south is the Shands Integrated Service Center (warehouse), Sivance LLC chemical company, and vacant land designated for airport facility expansion. The use of buffers along the boundary of the property provides for an appropriate setback

Environmental Conditions

Hydrology and Wetlands

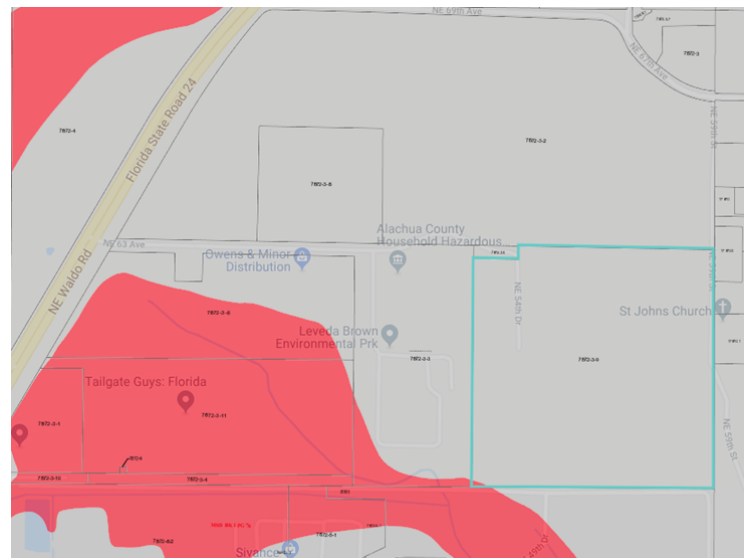


Source: Wetlands, Alachua County Map Genius.

- Parcel 07872-003-009 is located in in Zone X – outside the 0.2% annual chance flood hazard (grey color), and Zone A-1% annual chance flood hazard with no base flood elevation (red zone) encroaches the southwest corner site

Flood Zones

- As shown in Illustration, the Federal Emergency Management Agency's (FEMA) designated 100-Year Flood Zone exists on a small portion along the southern project boundary.
- The majority of FEMA flood zone area has been placed in the Conservation Management Area (CMA) with remaining portions being part of the existing approved Leveda Brown Environmental Park.
- Parcel 07872-003-005 is not located in a FEMA Special Flood Hazard Area (FEMA Zones-2018)



Source: Flood Zones, Alachua County Map Genius.

Topography

Elevation is level and at a road grade. Before site was level, no steep slopes exist across this very flat site. Topography used to range from natural highs approaching 165 feet above Mean Sea Level in the northcentral and northeast to lows of approximately 160 feet above Mean Sea Level in the wetlands and southwest corner.

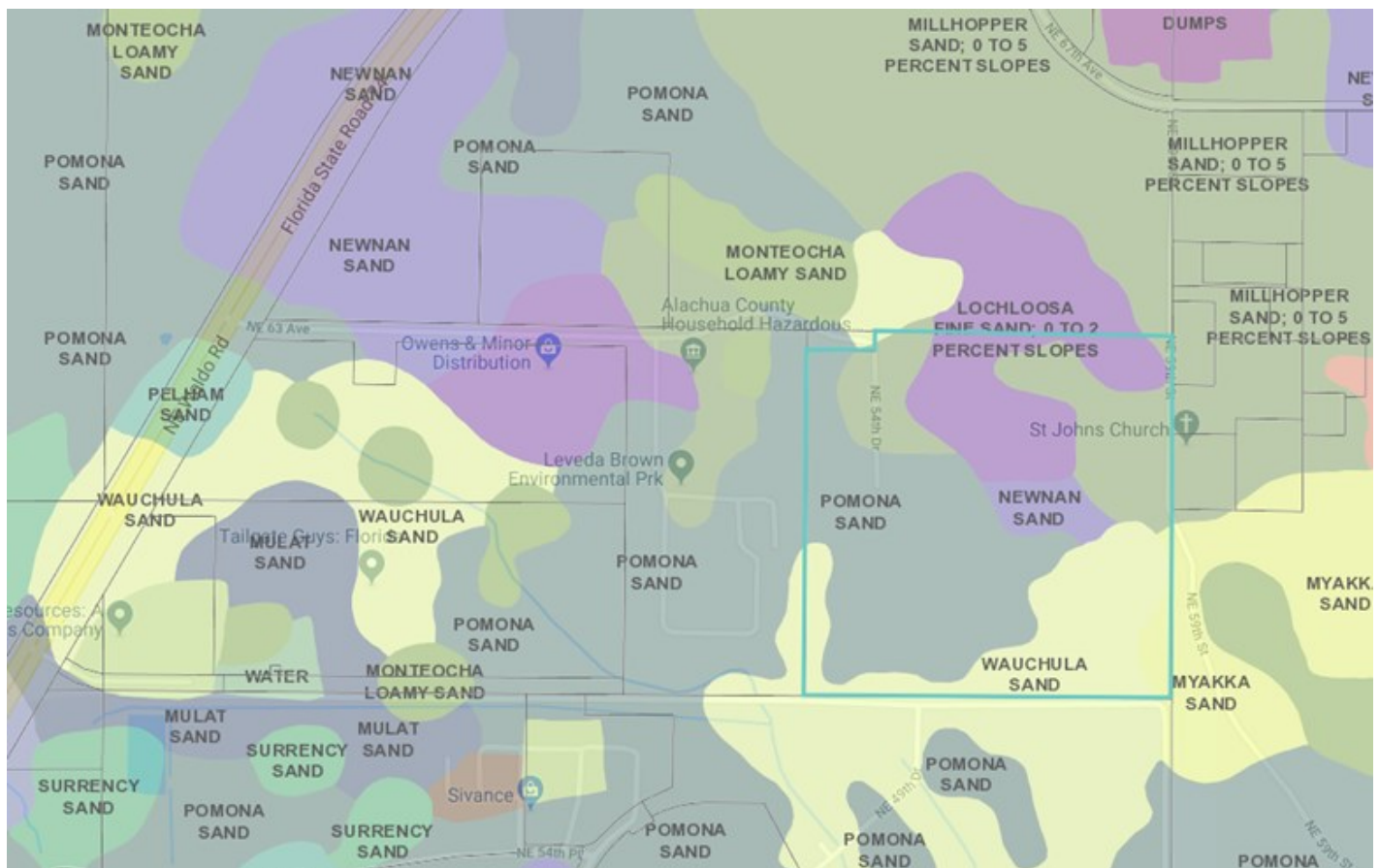
Site Maximum and Minimum Topographic Elevations Topographical Map (before grading)



Source: Topography, Alachua County Map Genius.

Soils

- 5 soil phases occur on the property. The northeast areas of the property contain the moderately well drained upland soils of Millhopper Sand.
- The western, central, and north central areas of the property contain the somewhat poorly drained Lochloosa Fine Sands, and Newnan Sands, respectively.
- The central area is covered by poorly drained Pomona Sand and Wauchula Sand.
- Small areas of Newnan and Myakka Sands are also present in the southeastern portion of the site.



Source: Soils, Alachua County Map Genius.



Stormwater Management

- The site was developed consistent to provide the necessary stormwater treatment and critical duration capacity.
- Stormwater Management Facilities (SMFs) were designed to ensure that post-development runoff rates and volumes do not exceed predevelopment rates or volumes.
- Impervious surfaces will be consistent with the Alachua County ULDC and Zoning Masterplan Specifications.
- Floor elevations within the site will be one (1) foot above the minimum 100-year/ critical-duration storm elevation.

Historical and Paleontological Resources

No cultural sites or other historical/ archaeological resources are recorded on or immediately adjacent to this property. No human burials on the property and no buildings or building site remains were found on the property.

Strategic Ecosystems

No part of the property lies within a Strategic Ecosystem but approximately 775 ft of the southwest boundary abuts the Gum Root Swamp Strategic Ecosystem.

Significant Habitat

No part of the property contains significant habitat or lies within a significant natural ecological area as identified under sources listed in Section 406.20, such as the Florida Fish and Wildlife Conservation Commission, the Florida Natural Areas Inventory, or the St. Johns River Water Management District.

Recreation/Conservation/ Preservation Lands

No part of the property is located within 660 feet of lands designated a Recreation/ Conservation/Preservation on the future land use map.

Significant Geological Resources

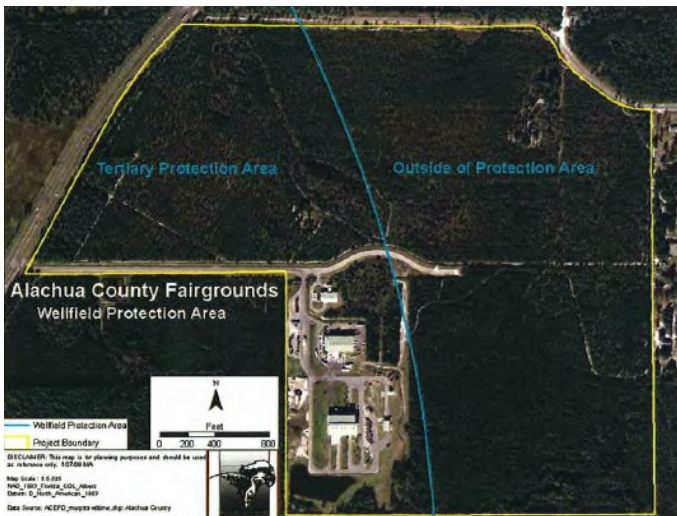
No significant geological resources were found on the property.

Aquifer Recharge Area

The property is located in an area where the Floridan aquifer is identified as being confined. No surface expressions of, or direct connections to, the Floridan aquifer were found on or adjacent to the property. The wetlands and surface waters of the site are part of the headwaters of the St. Johns River basin, draining through Gum Root Swamp to Newnan's Lake and southeast to the Ocklawaha River. None of the property is located within a stream-to-sink drainage basin.

Wellfield Protection Area

Most of the property is located outside the protection area. A narrow piece of the western portion of the property is located with the Tertiary Murphree Wellfield Protection Area.



Wells

There are no known public supply wells on or adjacent to the property. Private supply wells are located in the residential neighborhoods to the north and east of the property.

Environmental Due Diligence Report

No reported releases or conditions within or adjacent to the project site boundary related to hazardous material/contamination assessment

A Phase I Environmental Site assessment was performed in September of 2006 and found no significant issues.

Proximity to Regional Airport

While the site is located near the Gainesville Regional Airport, the parcel is not adjacent to, or at runway ends, and therefore, does not need to follow stricter Federal Aviation Administration (FAA) Guidelines. However, to be a good neighbor with Gainesville Regional Airport, the site has the following restrictions:

- No bird attractants may be brought onsite.

Branding & Marketing



frankel
media group

Frankel Media Group (FMG) was retained to develop branding, image, marketing plan and implementation strategy for the Eco-Industrial Park.

A presentation update about marketing strategy and branding is expected to go in front of the Board of County Commissioners in late February 2020.

FMG is a marketing and advertising agency headquartered in Gainesville, Florida. FMG was founded in 2005, and specializes in print advertising, online advertising, graphic design, media buying, marketing strategy, web Design, web development, video Production, social media strategy, social media management, public relations, account planning & research, and branding.

Next Steps

- Issue a RFP for real estate services once marketing and branding efforts are finalized.
- As part of marketing efforts, staff is preparing a Request for Innovators seeking industrial processors and manufacturers for the shovel-ready parcels.
- Release an RFP for Architectural and Engineering services for Research Core to take the schematic designs produced by UF to complete construction documents.
- Staff will pursue grant and legislative support to fund construction of the Research Core throughout 2020.
- Pursue a co-branding and cooperative agreement with the University of Florida.



Re-thinking Waste: Restorative, Regenerative, Resource Recovery