

City of Lakeland Strategic Planning Retreat Day 2

FACILITATED BY: MERRILL STEWART, CFRE - CEO Marketing & Business Solutions, LLC



Vision Words



Prosperity	Thriving	Peaceful
Connected	Unified	Opportunities
Encompassing	Innovative	Inclusive
Refreshing	Vibrant	Spirited
Unique	Colorful	Adaptive
Safe	Traversable	Predictable
Flexible	Surprising	Honoring
Nimble	Smart	Competitive

Target Area: 2 Economic Development



Target Area 2 – Economic Development Setting Goals:

- 1. Foster a diverse and vibrant economy by supporting growth of various industries, to drive economic prosperity.
- Identify and prioritize areas for strategic development to attract investment, stimulate economic growth, and create employment opportunities.
- Promote collaboration and innovation through supportive policies, access to funding, and partnerships to enhance quality of life.
- Provide quality public spaces to promote community engagement, connectivity, and well-being.





TARGET AREA 2Economic Development

Presentation 1: Growth & Redevelopment





Vision & Values

- •Vibrant & Inclusive Community
- •Efficient & Well-Maintained Infrastructure
- Safe & Convenient Mobility Options
- •Attractive & Environmentally Friendly Community
- •Responsible & Accessible Government

Comprehensive Plan





Our Community 2030

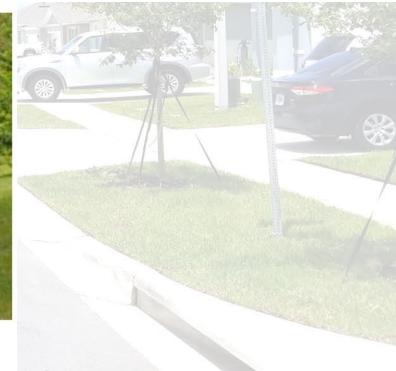
- Lakeland Comprehensive Plan
- ✓ 10 to 20 Year Plan
- Future land uses, densities and intensities
- ✓ Infrastructure needs
 - ✓ Transportation
 - **Water**
 - ✓ Wastewater
 - ✓ Parks & Recreation
 - ✓ Public Schools

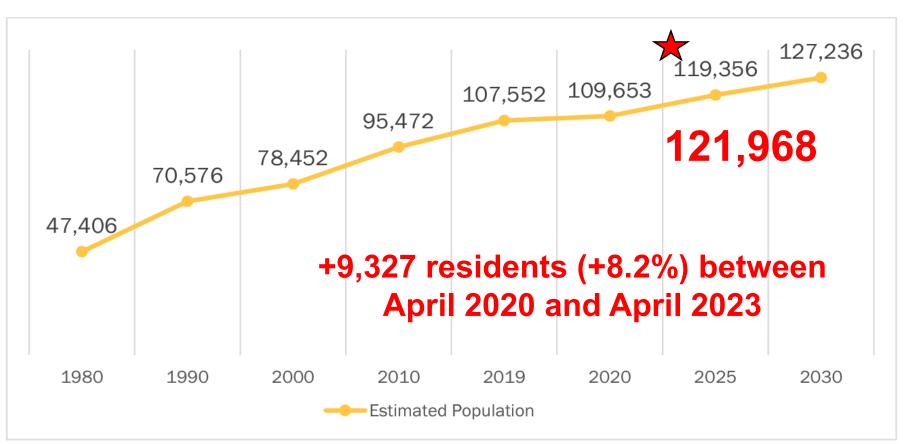


City Wastewater



Parks & Recreation





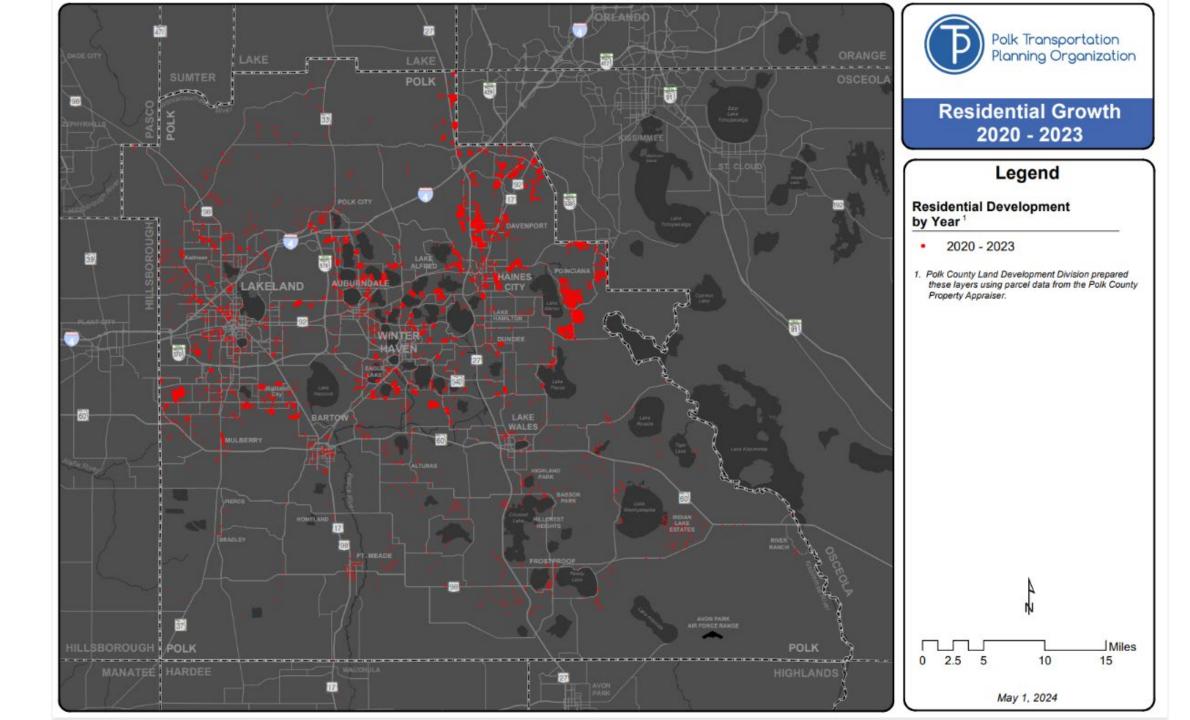


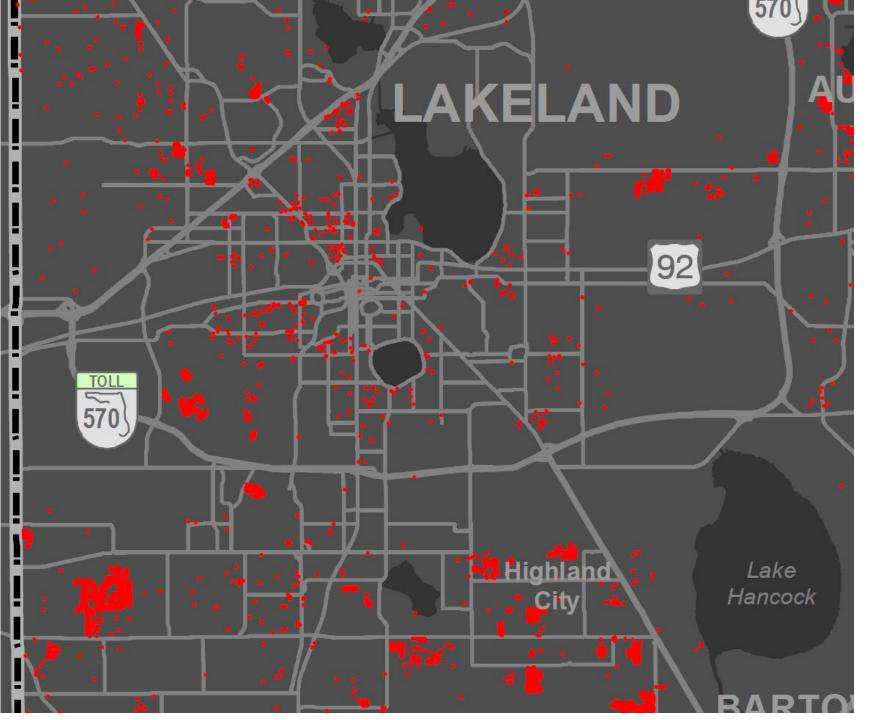


Top 10 Counties in Annual Numeric Growth: July 1, to July 1, 2023

Rank	State	County	April 1, 2020 (Estimates Base)	July 1, 2022	July 1, 2023	Numeric Growth
1	Texas	Harris County	4,731,122	4,781,337	4,835,125	53,788
2	Texas	Collin County	1,066,467	1,158,995	1,195,359	36,364
3	Texas	Montgomery County	620,460	679,554	711,354	31,800
4	Arizona	Maricopa County	4,425,102	4,555,833	4,585,871	30,038
5	Florida	Polk County	725,048	788,382	818,330	29,948
6	Texas	Denton County	906,419	977,760	1,007,703	29,943
7	Texas	Fort Bend County	822,797	888,919	916,778	27,859
8	Texas	Bexar County	2,009,316	2,060,191	2,087,679	27,488
9	Texas	Tarrant County	2,110,623	2,155,646	2,182,947	27,301
10	Texas	Williamson County	609,006	672,273	697,191	24,918

Source: U.S. Census Bureau, Vintage 2023 Population Estimates.





Single-Family Permits

- Riverstone
- Lakes at Laurel Highlands
- Gresham Village
- Lakeside Preserve
- Terra Largo
- Bridgewater

Main Street A Century Ago





Lakeland of Tomorrow?

- Car-Oriented
- Inefficient Land Use Patterns
- Poor Connectivity







Lakeland of Tomorrow?

- Multi-Modal
- Mixed Use
- Connected



A City for People...



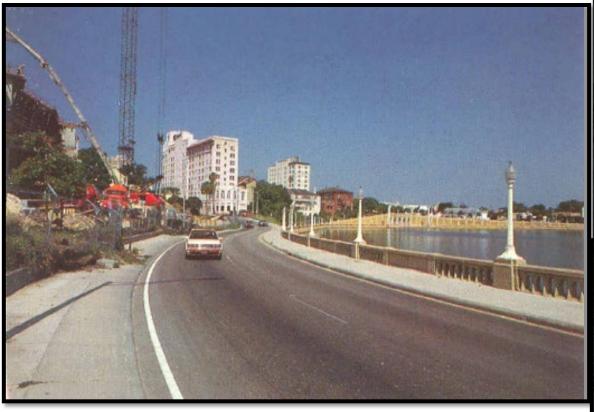
Lemon Street Before and After Two-Way Street Conversion

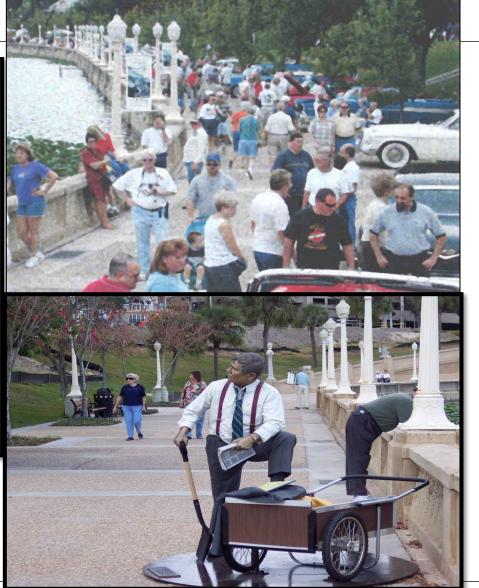
Lemon Street – Formerly Designated "US Business 92"



A City for People...

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Lake Mirror - Before and After Street Removal

New Bern Station - 2003

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1. 24

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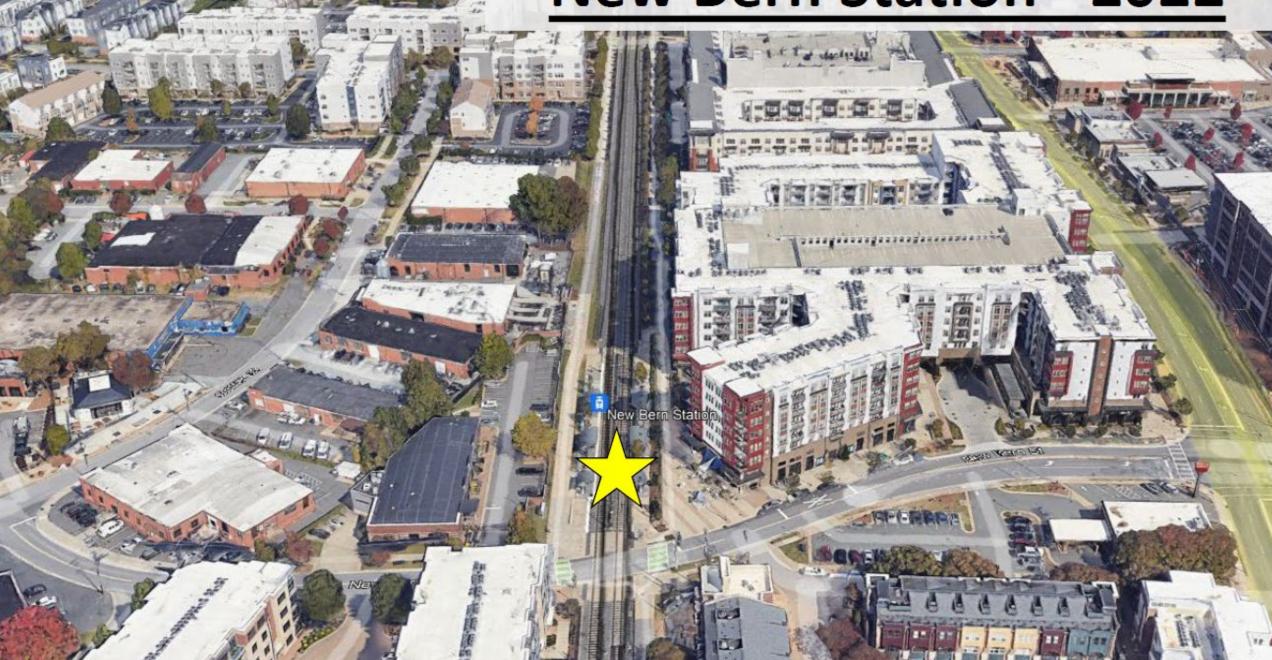
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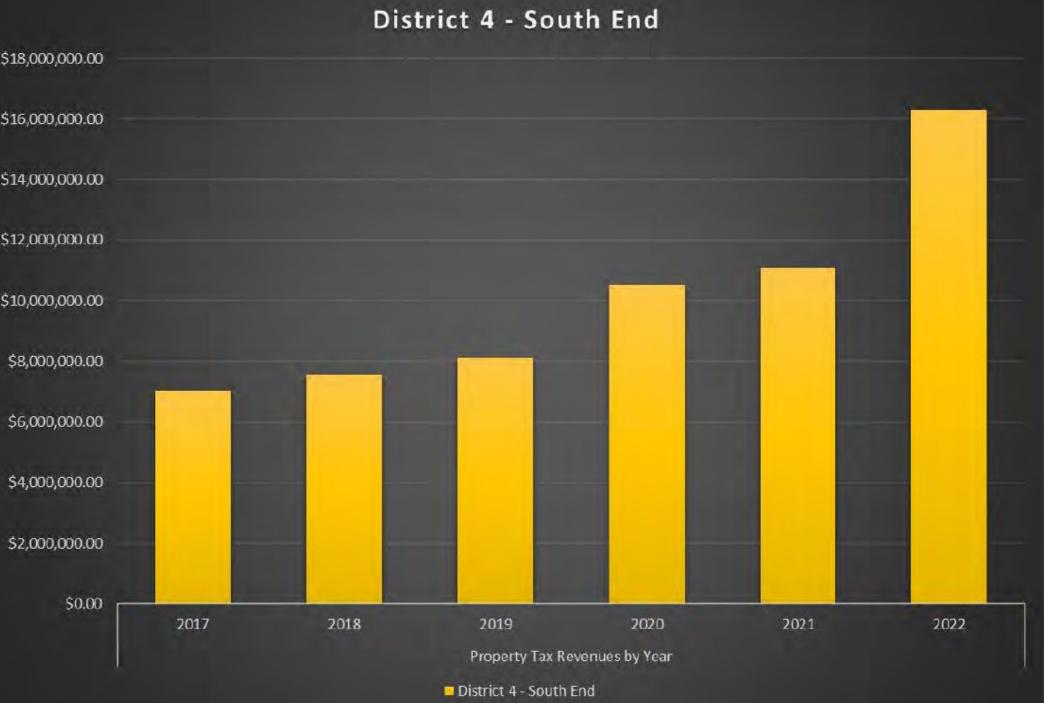
Low density and underperforming industrial and commercial

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New Ports St

New Bern Station - 2022





Significant property tax revenue growth

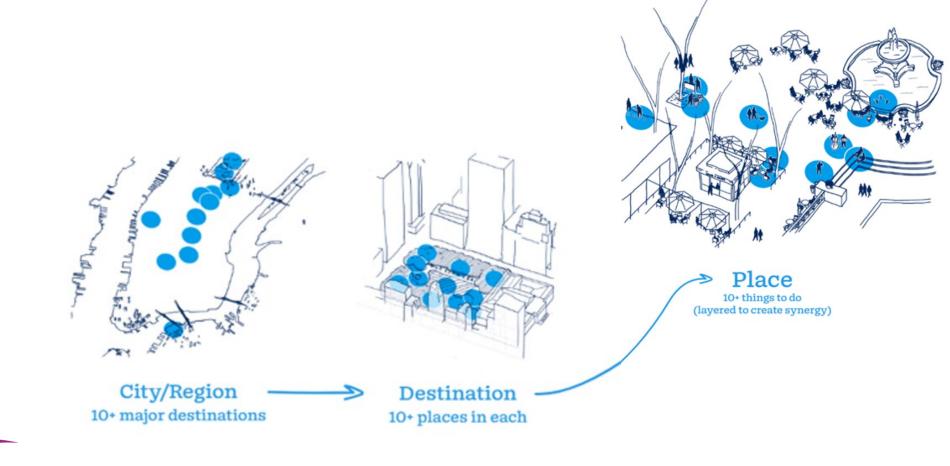


98 Corridor Opportunities

Photo by Julia Davis, Polk TPO

Power of 10+

How Cities Transform through Placemaking





RE-Evaluate Imagine Develop Use Activate Invigorate

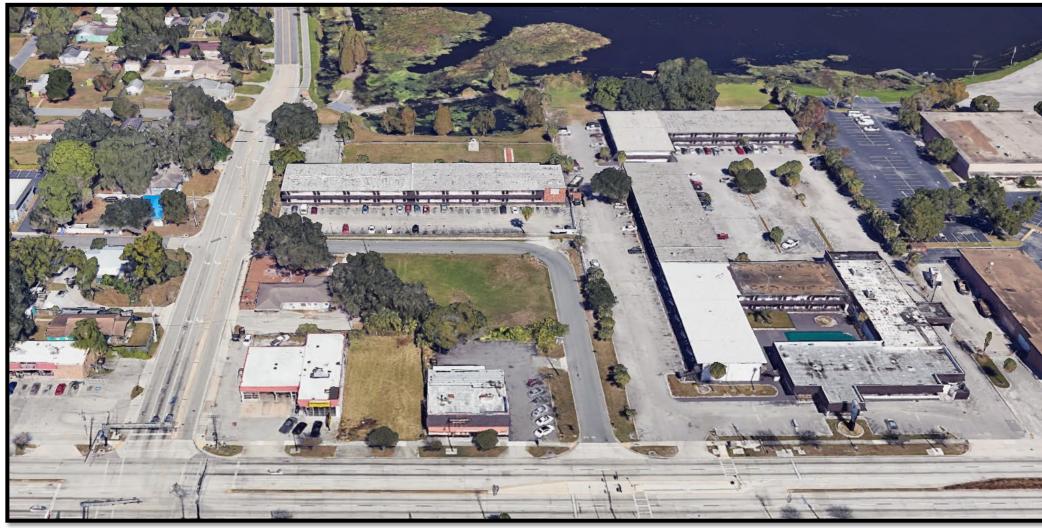
> Underutilized & Underperforming Central City Properties











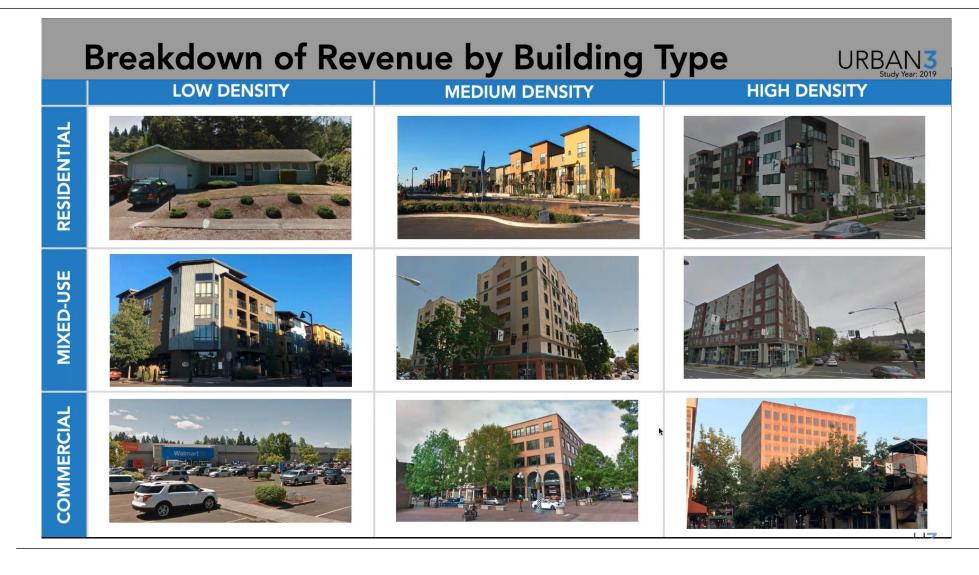






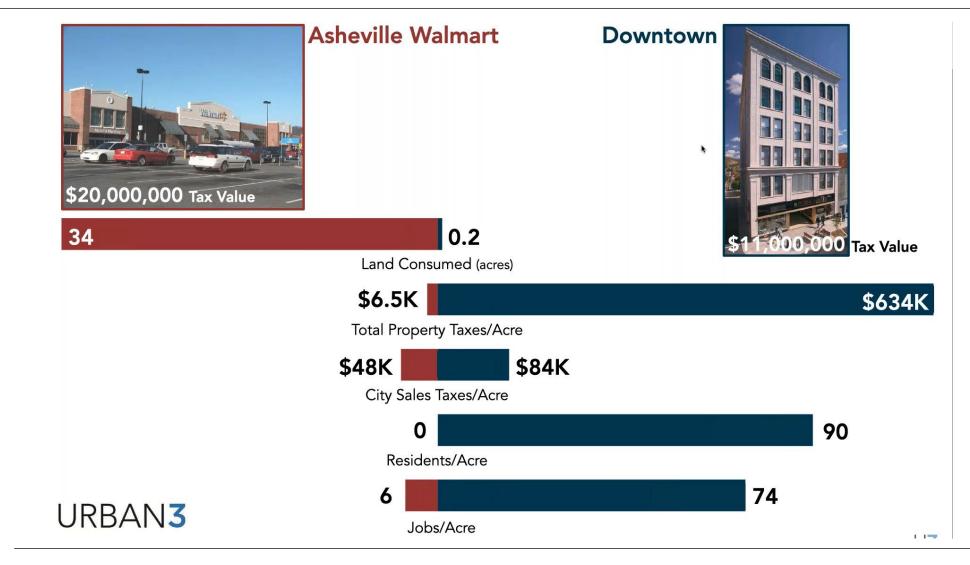


(e) www.lakelandgov.net





CITY OF



Small Business Statistics – 2024

Forbes Advisor

Almost all businesses across the U.S. are small businesses

Nearly half of all U.S. employees are employed by a small business

Small businesses have added over 12.9 million jobs in the last 25 years

FLORIDAC©MMERCE

In 2024 alone, 163,992 new businesses have formed in Florida, more than any other state in the nation.

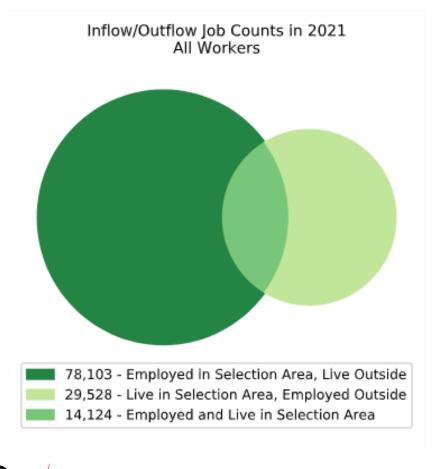
Of Florida's 529,072 private sector businesses, 99.7 percent employ less than 500 employees, which represents 56.9 percent of the state's total private sector employment.

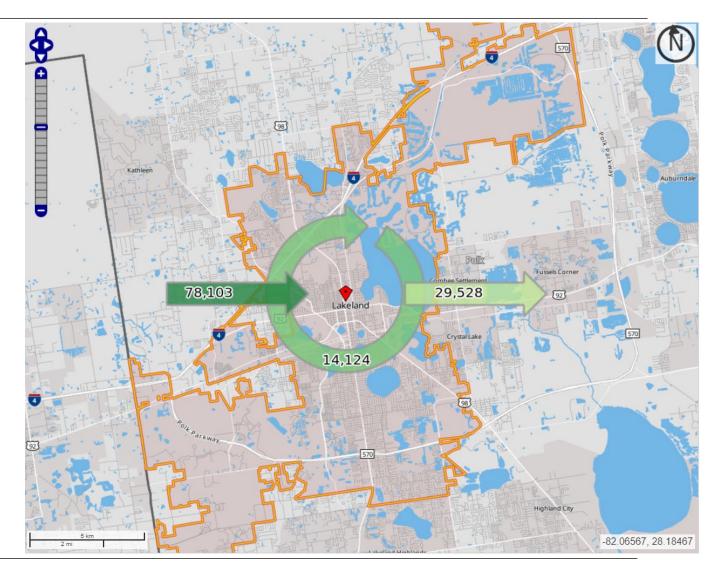


Top Industries by Projected Employment Growth Rate 2023-2031

Professional and Technical Services Accommodation and Food Services Health Care and Social Assistance









Source: U.S. Census Bureau, Center for Economic Studies, LEHD

Attract:

- Mixed Use Development
- Infill Development
- Employment Centers and Small Business Opportunities

With:

- Real Estate
- Entitlements + Infrastructure = <u>Site Readiness</u>
- Incentives
- <u>Vision</u>



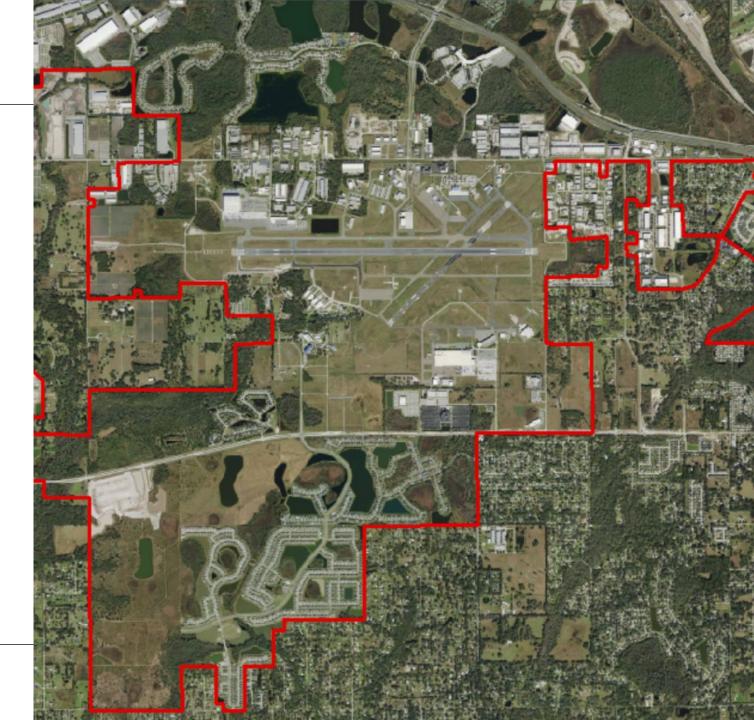
Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody

—Jane Jacobs



Southwest Lakeland

Infrastructure & Placemaking

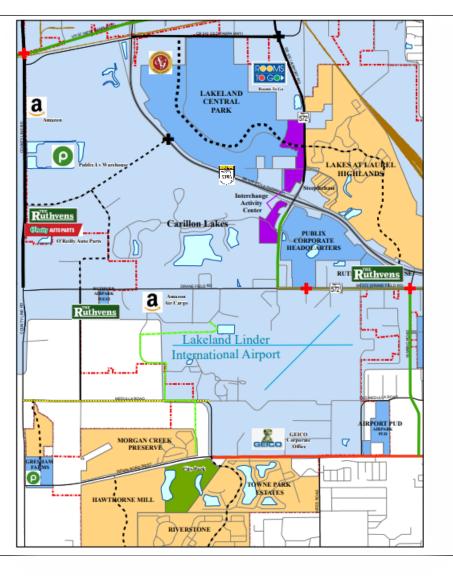




Southwest Lakeland



1,231 single-family lots 2,800 multi-family units







Target Area 2 Economic Development Presentation 1: Growth & Redevelopment

Questions



TARGET AREA 2 Economic Development

Presentation 2: Affordable Housing

Affordable Housing

Wages and Incomes



Education Healthcare Mobility Diversity Prosperity



Market Subsidy Mobility Choice Type Diversity Regulation

> Housing Costs



Housing Costs

Neighborhood Characteristics

- Block Size
- Job Gravity
- Job Mix Index
- HH Density
- HH Gravity
- Fraction Single Family Detached
- Fraction Rental
- Single Family Detached Gravity
- Renter Gravity
- Bus TCI
- Other TCI
- TAS Area
- TAS Jobs

Peak Service

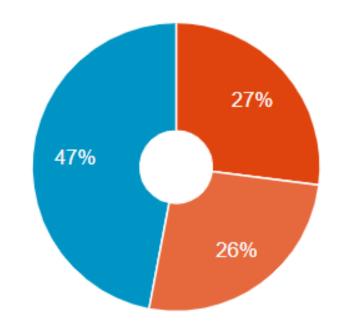
Household Characteristics

- Median Household Income
- Commuters/HH
- HH Size



Housing and transportation costs benchmark set at no more than 45% of household income.







Our Community 2030

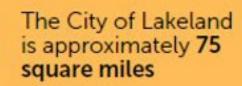
This chapter guides decisions and influences:

- How Lakeland will grow and develop over time
- Housing availability and affordability
- Parks and open spaces
- Neighborhoods and historic preservation
- Property rights

The Future Land Use seeks to ensure land use policies support a vibrant economy and business partnerships. Vibrant and Inclusive Community

Strong neighborhoods support our cultural history and our economic future

Did you know?





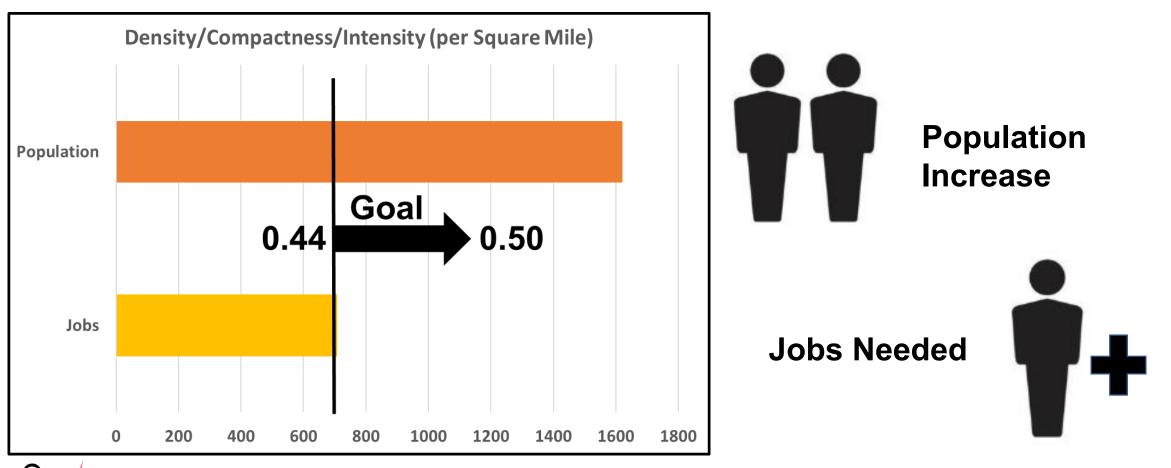
Lakeland maintains 5.98 acres for recreation use per 1,000 residents... that's 643 acres!



Lakeland's projected population in 2030 is estimated to be 127,236.



Wages and Income





Housing Availability

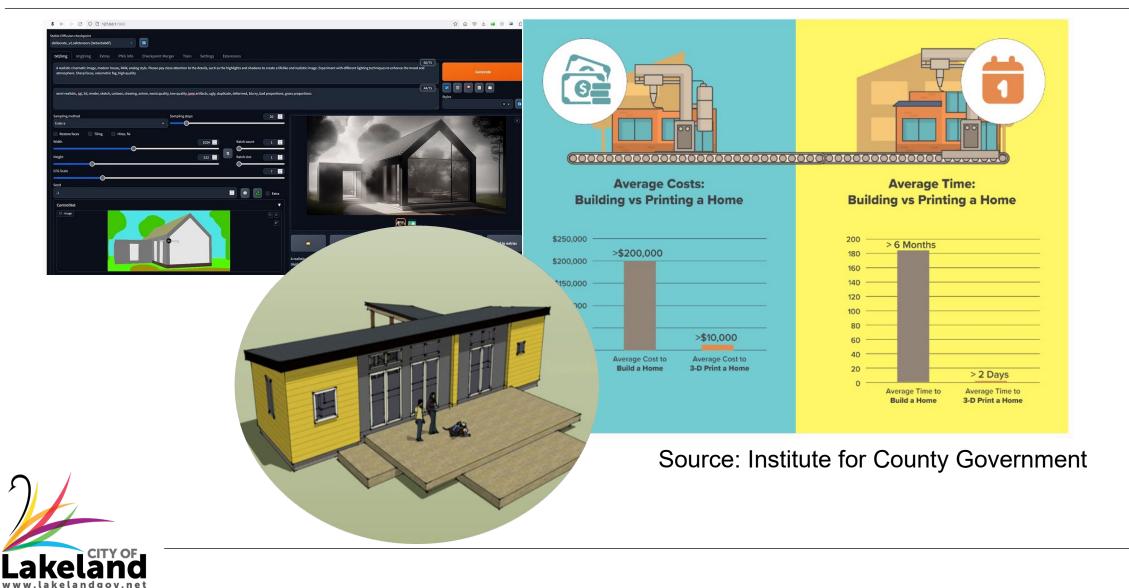


The Housing Element seeks to ensure residents of all incomes will have housing availability in the future. It establishes policies to encourage a variety of housing types that are available throughout the City.





Housing Innovation





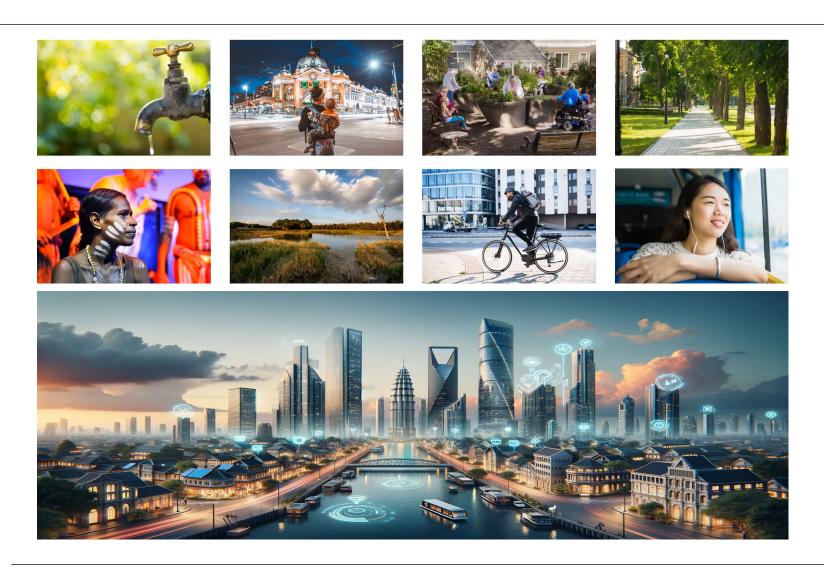
Target Area 2 Economic Development Presentation 2: Affordable Housing

Questions



TARGET AREA 2Economic Development

Presentation 3: SMART City







What is Changing in Smart Cities?

- Internet of Things (IoT)
- Artificial Intelligence (AI)
- Green Technology
- Governance







Best Practices

- Collaborative
 Government
- Data-Driven Decision Making
- Citizen Centric Approaches
- Scalability and Sustainability
- Security and Privacy
- Integrations
- Continuous Learning







Trends & Innovations Shaping Smart Cities

- Increased Focus on Sustainability
- Smart Transportation
 Solutions
- Citizen Engagement
- 5G
- Artificial Intelligence (AI)
- Blockchain
- Internet of Things (IoT)
- Cloud Computing
- Smart Grids







Benchmarks

- Efficiency in Energy
 Consumption
- Improved Transportation Metrics
- Enhanced Public Safety
- Environmental Impact
- Citizen Satisfaction & Engagement
- Economic Development







Planning Considerations

- Technology Integration
- Scalability
- Sustainability
- Data Security and Privacy
- Skills Gap
- Staffing







Target Area 2 Economic Development Presentation 3: SMART City

Questions







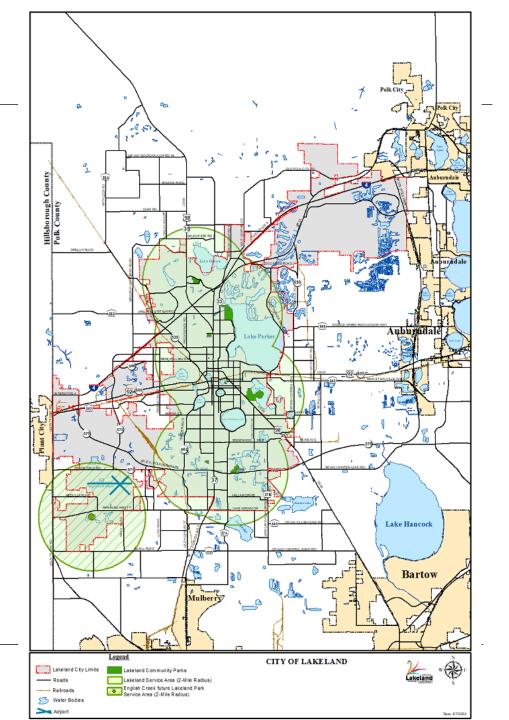
TARGET AREA 2Economic Development

Presentation 4: Parks, Recreation, and Cultural Arts

Community Parks- City

- Lake Crago Park
- Lake Parker Park
- Fletcher Park at Lake Bonny
- Peterson Park
- Tigertown
- John McGee Park
- Southwest Park
- Westside Park
- Holloway Park
- Cook Park
- English Creek future



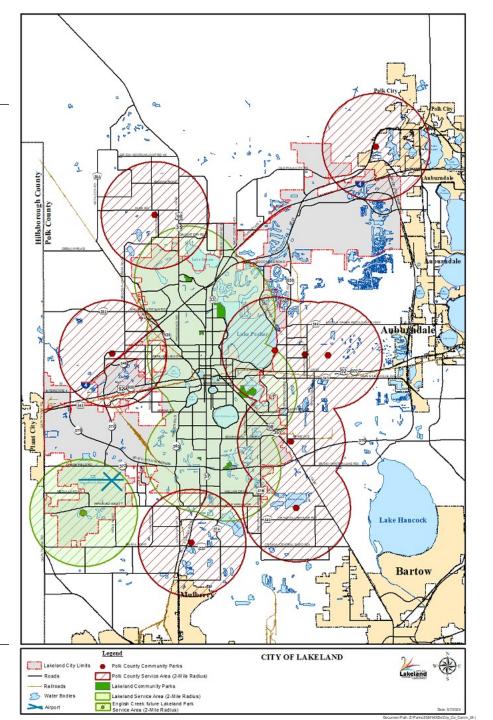


Regional Parks- County

- Lake Myrtle Park
- Hunt Fountain Park
- Walker Park
- Loyce E. Harpe Park
- Aldine Combee Park
- Christina Park
- Saddle Creek Park
- Circle B Bar Ranch

State Parks-Tenoroc State Park





What is Changing?

- National Recreation Parks Association (NRPA) Standards for current Population:
 - COL has less than half of the recommended multi-purpose fields.
 - COL has 2/3rds of the recommended baseball, softball fields and playgrounds.
- Lack of Additional Green Space to accommodate additional growth to maintain our current level of service.
- No funds to construct new ballfields or park amenities.



Trends:

- Fastest Growing Sports:
 - Pickleball
 - Disc Golf
- Artificial Turf Fields
- Bike Trails & Multi-use Trails
- Dog parks
- Cricket
- Public Art in Parks

Trends:

- Electric Vehicle Charging in Parks
- Self Cleaning Restrooms
- Outdoor Fitness Equipment
- Camping Space







Innovation:

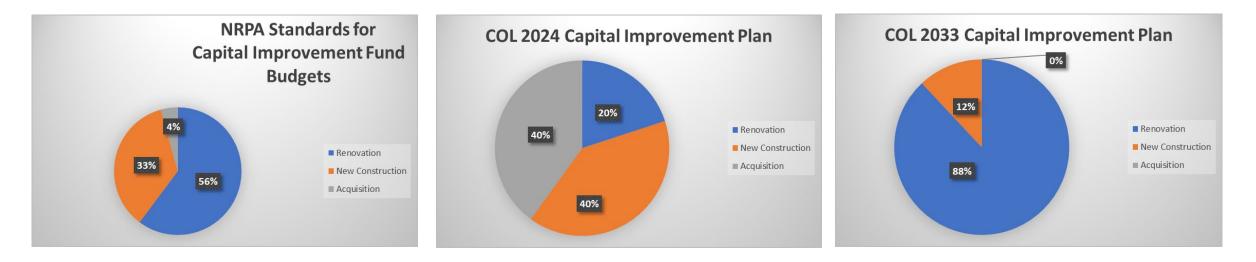
- Smart Park Technology for anonymous device, longitude and latitude only, where phones are coming from & going to.
- Utilize solar lights in remote park areas.
- Data Network for live TV Feed and reliable internet connections.
- Interactive/Digital Playgrounds and Games







A Look to the Future:





A Look to the Future:

- Lakeland is landlocked with little opportunity to acquire additional parkland.
- Current Level of Service will require artificial turf to sustain growth.
- Parks CIP funding cannot maintain current level of service to accommodate population growth.





COL Comprehensive plan establishes one recreation center per 30,000 residents. Lakeland should and does have 4 recreation centers:

 Lake Mirror Complex
 Kelly Recreation Complex
 Simpson Park Recreation Complex/Coleman Bush Building











What is changing?

- Increased demand for affordable rental spaces.
- Increased public pool usage.





Trends:

- Growing emphasis on outdoor recreation.
- Wellness Tourism travelers seeking destinations and experiences to promote relaxation, stress relief and overall well being.
- Virtual Reality Recreation:
 - Virtual Reality technology to experience virtual worlds, games and simulations in a social setting instead of from home.





Trends:

Continued demand for After School Care, Aquatics, Fitness, Senior Participation, Adaptive Programs, Arts, Dance, Education, Esports, S.T.E.M. and Athletics.





Innovation:

- Placer AI: tracing where people are coming from to utilize our recreation facilities and how long they visit.
- Smart equipment to inner act with user's phone app or watch tracker.
- Art installations in recreation centers.
- Virtual tours of rental spaces and facilities.





A look to the Future:

- Splash Pad for Coleman Bush/Jackson Park.
- Smart/Environmental and Sustainable Buildings.
- Covered court sports.









Cemeteries

Lakelands Oak Hill Cemetery has 35 years left of burial plots at the current rate of sales.

What is Changing?

Increase in cremation options.





Trends:

- Increased interest in a Pet Cremation Cemetery.
- Increased interest is a Scattering Garden for Ash Dispersal.
- Increased interest in Green Burials, natural burials in a shroud or bio-degradable basket or container. An environmentally responsible alternative to traditional burial, embalming & vaults prohibited.



Cemeteries

Innovation:

- Enhance the Online Burial Search with 3D grave views.
- Add an interactive kiosk to the cemetery to facilitate burial searches.





A Look to the Future:

- Obtain Grants to restore and preserve monuments in all cemetery locations.
- Construct an Outdoor Chapel at Oak Hill Cemetery.
- Do we want to be in the cemetery business 35 years from now?





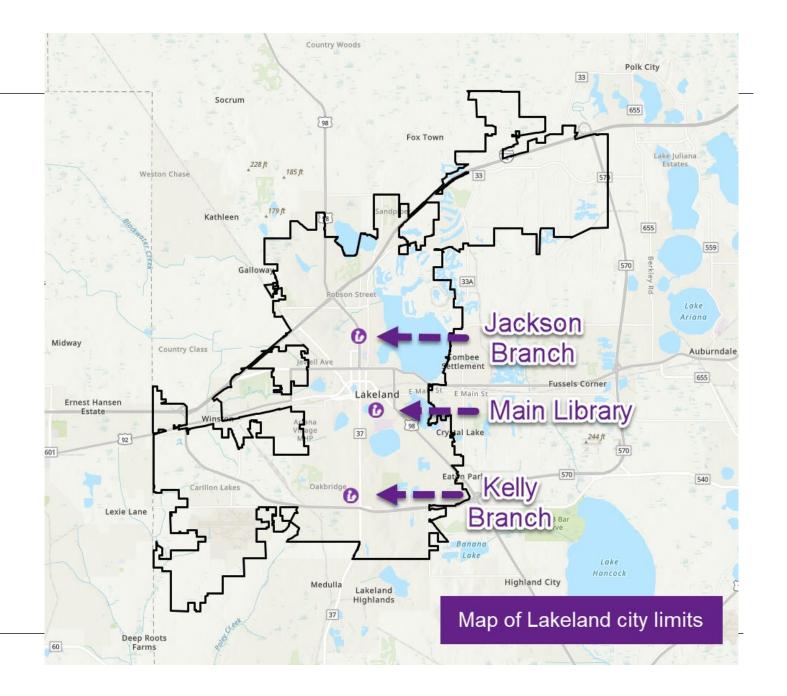
What is Changing?

- Population growth = the need to identify and plan for future libraries.
- Demographics reflected in collections, staffing, etc.
- Adoption of digital materials is rising.
- More focus on Accessibility.
- Increased support for Arts and Culture.



Trends:

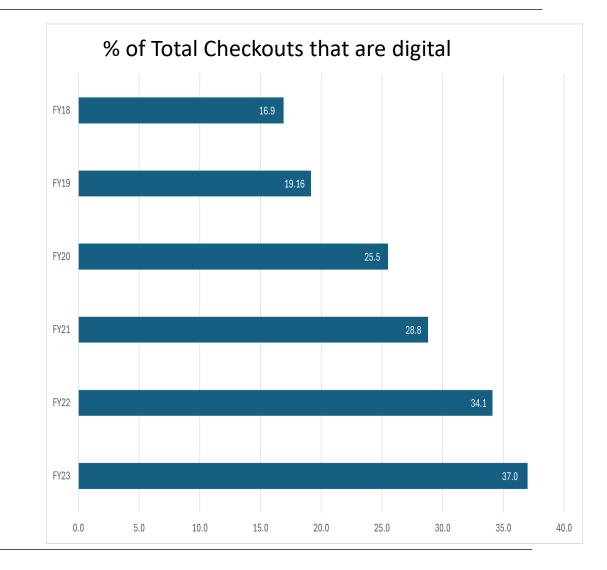
- More requests for library service from North Lakeland and Kathleen
- SW site planned





Trends:

- Migration to digital materials continues.
 Up 20% in five years.
- More requests for meeting rooms and study spaces.
- Less demand for public access computers and more use of personal devices to connect to the internet.





What are others doing:

- Employing Social Workers to help residents find resources.
- Partnering to provide public health information.
- Beginning to use Artificial Intelligence (AI) and immersive technologies such as Augmented Reality (AR) and Virtual Reality (VR) in the delivery of service.
- Diversifying offerings beyond traditional book lending tools (e.g., technology devices, gardening tools, cake pans).



Innovation:

Use technology tools to improve library services

- Generative AI: Automating responses to common queries, personalized reading recommendations, and administrative tasks.
- Virtual and Augmented Reality: To create interactive learning experiences and virtual tours of library resources.

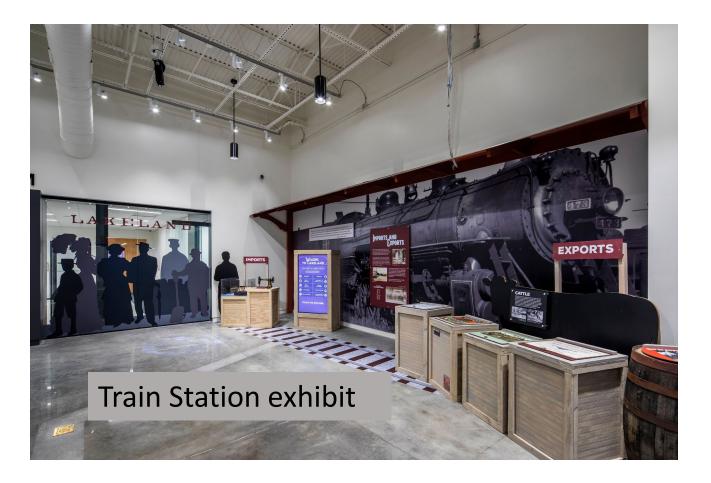




Innovation:

Include Arts and Culture components throughout the City.

Showcase local history resources in new venues.





A Look to the Future:

Focus on Accessibility

- Keep Library services accessible to everyone. Adaptive technologies for individuals with disabilities.
- More multilingual resources.
- Facilities designed or improved for better access.
- Web content and social media will conform to established guidelines for accessibility.



What is Changing?

- Popularity of golf in America is surging.
- 26.6 million Americans played golf on a course in 2023. An increase of over 1 million golfers!
- Grass roots participation, diversity, access & Inclusion





Innovations:

- Incorporate technology, phone apps, green reading apps & training aids.
- Programs to appeal to the youth and female population.
- Influence of nutrition and fitness is resulting in more golfers walking.
- Adopt maintenance program and target vegetation addition to reduce watering in non-play areas.





A Look to the Future:

Renovate aging infrastructure on the 100-year-old course.

- Greens & Tees
- Cart Paths
- Restrooms
- Upgrade driving range

Maintain popular food and beverage operation. Maintain competitive pricing structure.





Cleveland Heights Golf Course







Target Area 2 Economic Development Presentation 4: Parks, Recreation, and Cultural Arts

Questions

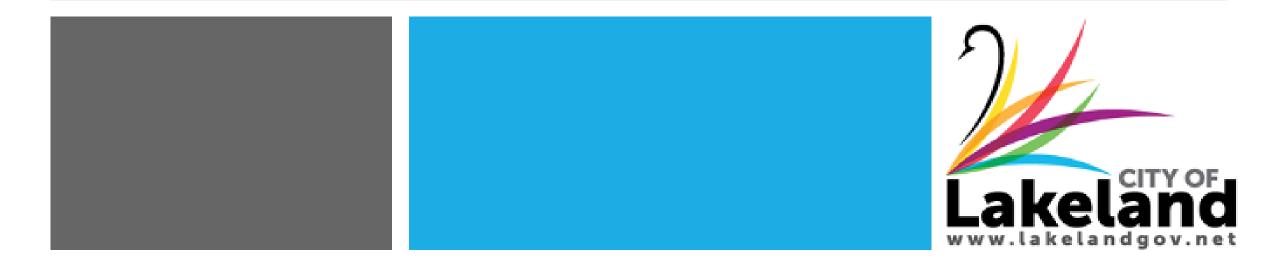
Target Area 2 – Economic Development Setting Goals:





LUNCH

Target Area: 1 Infrastructure



Target Area 1 – Infrastructure Setting Goals:

- 1. Enhance infrastructure for greater mobility.
- Strengthen the resilience of critical infrastructure systems such as transportation, communication, and utilities to withstand disruptions and ensure continuity of essential services.
- Identify and prioritize areas for strategic development to attract investment, stimulate economic growth, and create employment opportunities.





TARGET AREA 1Infrastructure

Presentation 1: Transportation

Infrastructure & Growth

Key Issues

- Traffic Safety
- Rapid Growth
- Transportation Options & Connectivity
- Level of Service Standards
- "Legacy" Priority Projects
- Funding Constraints vs. Competing Demands
- Growth Philosophy









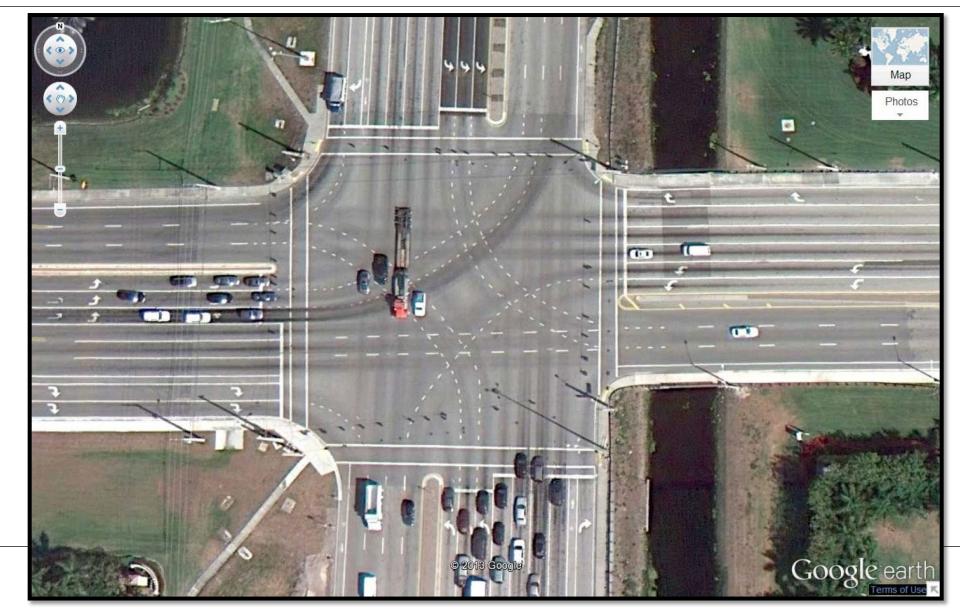
















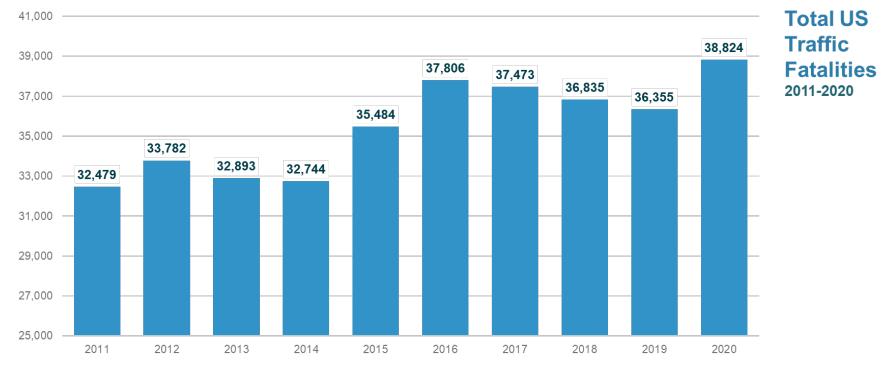






Significant Opportunity for Safety Improvements

State and National Trends:



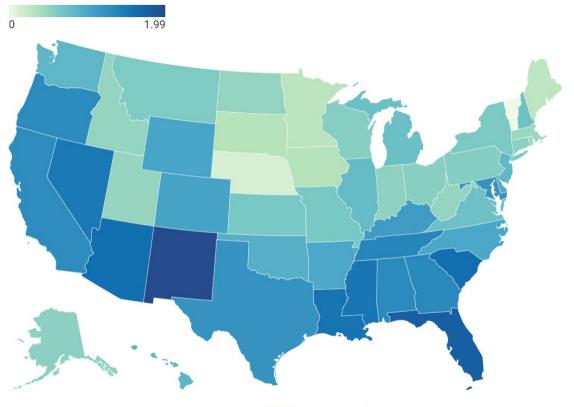


We have a national roadway safety problem

State and National Trends:

Florida traffic fatality rate among highest 25% of states

Florida #2 most dangerous state for pedestrians, behind only New Mexico U.S. Pedestrian Fatalities Per 100,000 Population, January-June 2023



Source: Governors Highway Safety Association (GHSA) • Embed • Created with Datawrapper



State and National Trends:

"A steep drop in traffic enforcement across the country since 2020 has enabled dangerous driving behaviors – including speeding and driving impaired – to flourish."

- Governors' Highway Safety Administration (GHSA) Feb 27, 2024



Lakeland 2023

34 66 Fatalities Severe Injuries

(one every 11 days)

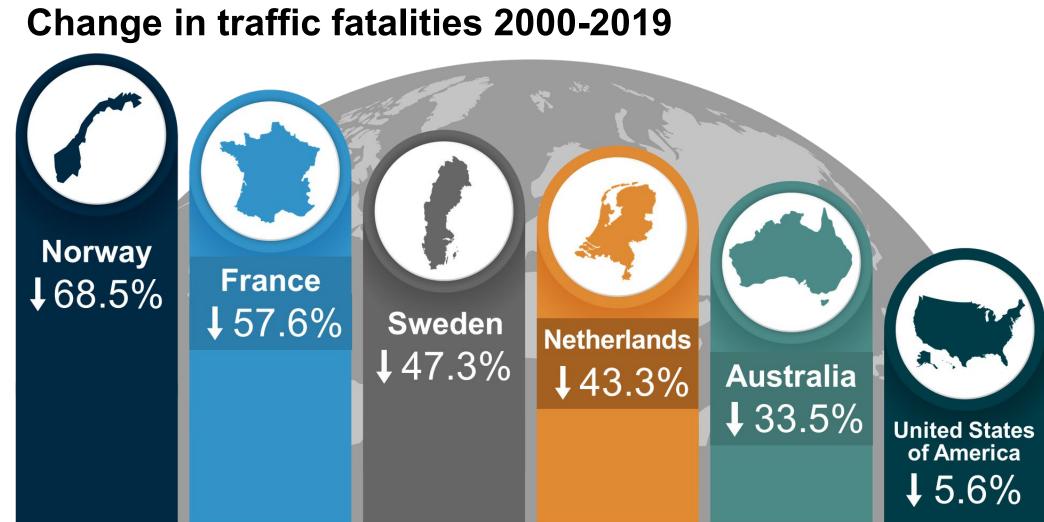
(one every 5 days)



Severe crashes involving pedestrians doubled from 2022 to 2023







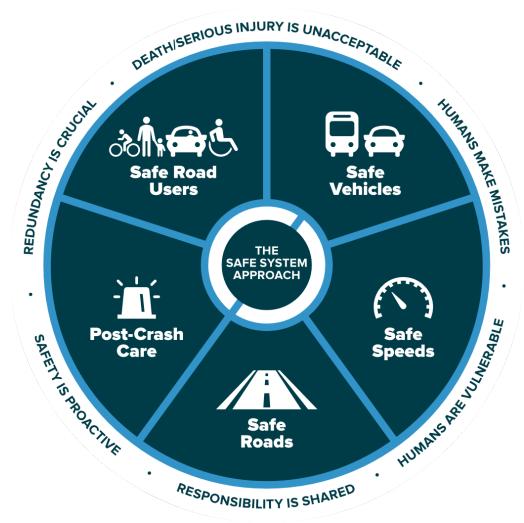


Source: FHWA with data from World Health Organization Global Health Observatory Repository

What makes the difference?

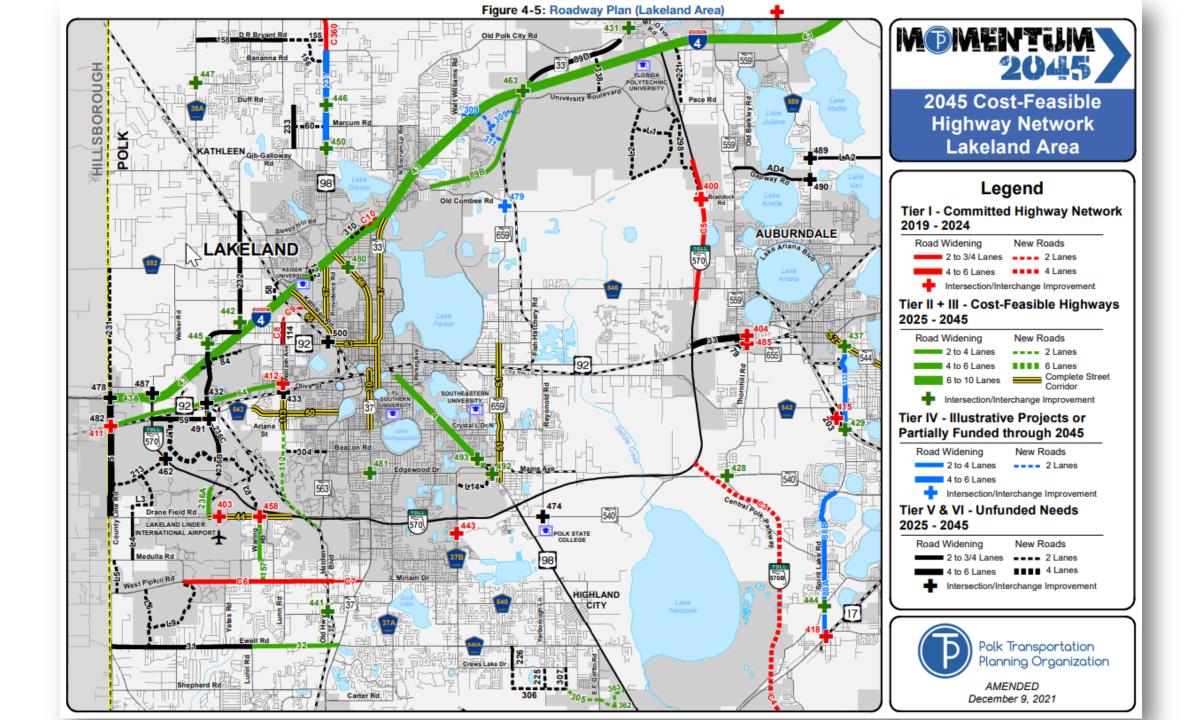
The Safe System Approach

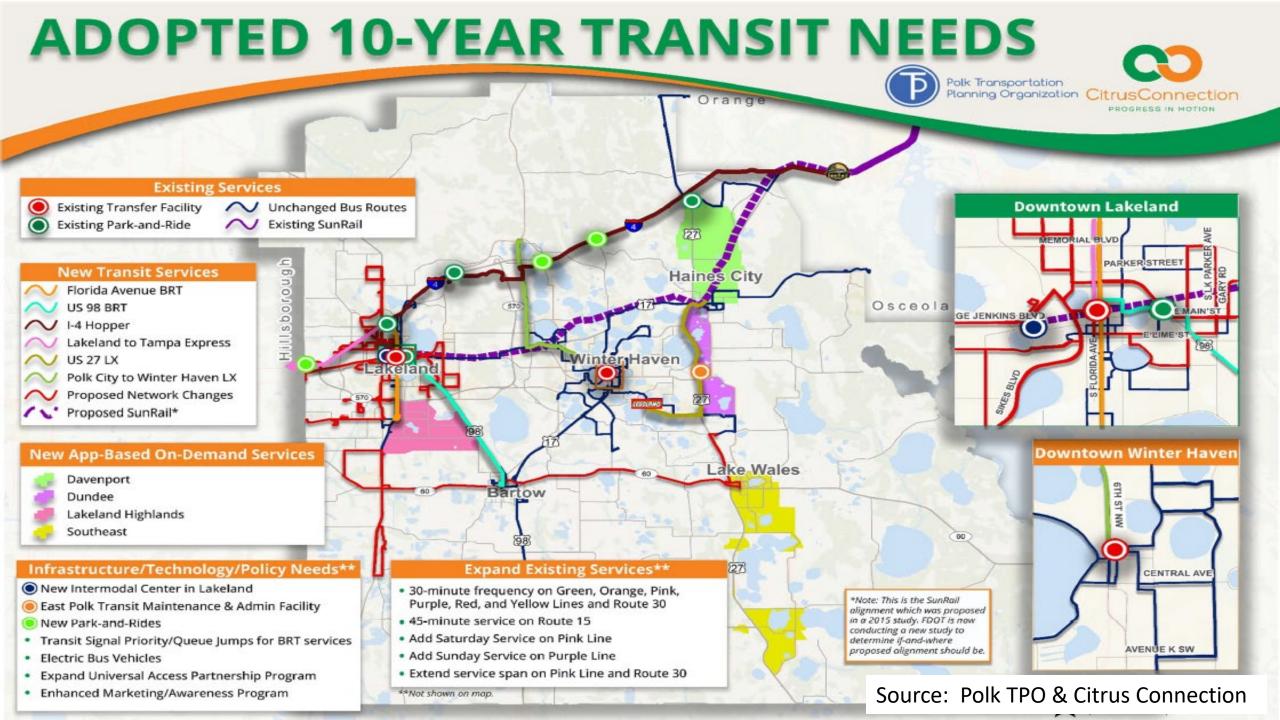
- Holistic approach to roadway safety
- Serious injuries and fatalities are preventable
- Focus attention on making roadway environments safer at the systemwide level
- A supporting safety culture that places safety first and foremost in road system investment.





Transportation Choices





New Bern Station - 2003

Kati Chossing Lin

South and

Seat 1

Bern Station

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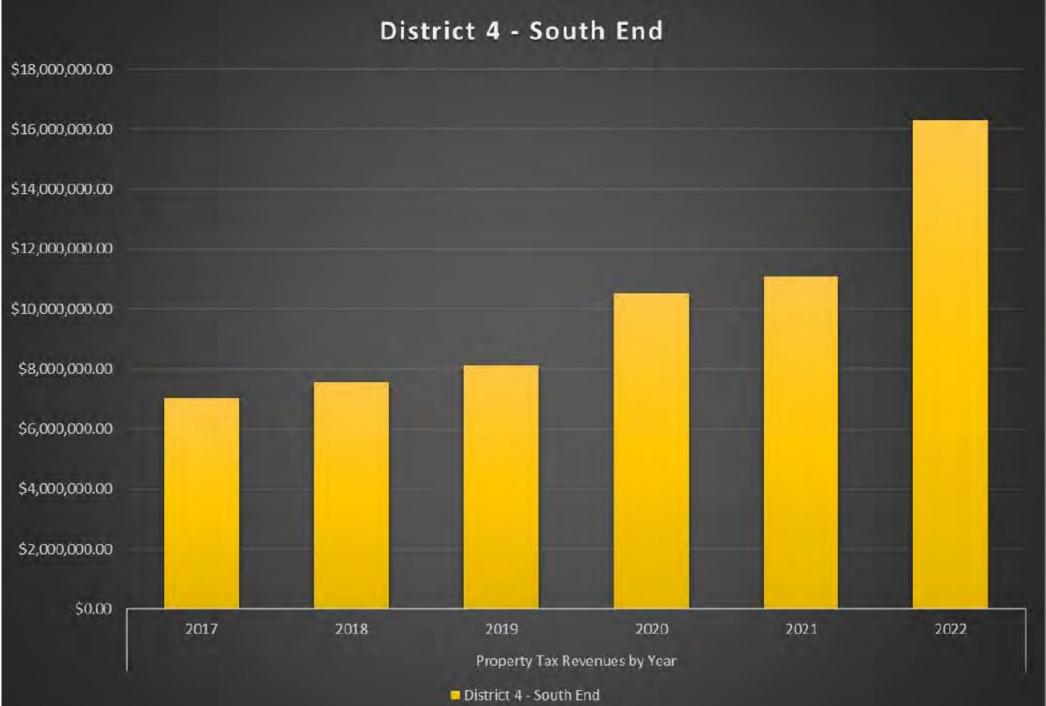
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Ea

Low density and underperforming industrial and commercial

New Parts St

New Bern Station - 2022 t to destude



Significant property tax revenue growth



98 Corridor Opportunities

Photo by Julia Davis, Polk TPO

Transportation Choices

Bus Rapid Transit



- Dedicated transit ways
- Special branding
- Vehicles & stations designed for expedited boardings
- Phased Approach
 - More Frequent Service
 - Traffic Signal Operations



Transportation Choices





Transportation Choices

Lake to Lake Bikeway

- Expand to all corners of Lakeland
- Continue to make connections to regional network
- Integrate with mass transit routes
- Increase use of technology







Lakeland Intermodal Center

- FDOT Feasibility Study
- Citrus Connection Terminal
- New AMTRAK Station
- Future SunRail Station



Along the Interstate 4 Corridor



High-Speed Rail Station Infrastructure



Target Area 1 Infrastructure Presentation 1: Transportation

Questions



TARGET AREA 1Infrastructure

Presentation 2: Airport

STRATEGIC PLANNING FUTURE READY STRATEGIES





FACTORS AFFECTING THE AVIATION INDUSTRY AVIATION TRENDS – GENERAL ENVIRONMENTAL SCAN





General Aviation Industry Activities

- Flight Training Boom
 - Schools continue to see high demands from student pilots.
- Rise of the Midsize Business Jet
 - Industry focus is shifting to longer range aircraft with larger cabin sizes.
 - Some predict the fleet will more than double.
- The Great Migration
 - Airports across Florida continue to see high demand for t-hangar space, but building costs remain prohibitive.
- Rising Costs
 - Everything from maintenance to fuel costs continue to be barriers to entry for many.





Airline Industry Activities

- Airline "Upgauging"
 - Movement away from 50, 70, and 90 seat regional jets.
- Sustainability
 - Sustainable Aviation Fuels (SAFs).
 - Electric Ground Support Equipment (GSE).
- Automation
 - TSA is now testing self-screening technology.
 - Airlines are moving to online / app-based business activities. "Digital Integration".
- Airline Network Strategies
 - Less complex, rethinking hub & spoke operations.





Aviation Trends

eVTOL Industry Activities

- Electric Vertical Take-Off and Landing (eVTOL) or Urban Air Mobility (UAM)
- HEXA was present at LAL this Spring.
- FAA still investigating integration into the National Airspace System (NAS).
- FDOT launched an advisory committee looking at trends related to eVTOL and UAM in the State of Florida.
- Operational concerns around power supplies and endurance of the aircraft.









OUR FUTURE READY PLANS

THE INTERMODAL FEASIBILITY STUDY "BUSINESS PLAN" & AIRPORT MASTER PLAN





Our Business Plan

- Recommends potential revenue enhancing initiatives along with policy and managerial strategies to improve the airport's financial performance.
- It was completed in 2015 and looked at a 10-year planning horizon (sunsets in 2025).
- It's now time to explore updating our Business Plan for the next 10-year planning horizon, to include funding mechanisms for our capacity enhancing capital projects.





Implementation, the Seven (7) Primary Strategic Initiatives

- ✓ 1) Attract Airline Service
- ✓2) Secure U.S. Customs
- 3) Attract More MRO Activity
- \checkmark 4) Increase GA and Military Activity

- 5) Increase Intermodal Use of the Airport
- 6) Non-Aviation Property Development
- ✓ 7) Airport Rebranding





Our Development Plan

- The primary purpose of the Airport Master Plan is to provide guidance for the future development of the airport (currently through the 2040 planning year horizon).
- It took 2 years and 3 months to complete (Oct 2017 to Jan 2020).
- Total cost was \$651,323.
- Explores everything including current facilities, forecasting, environmental factors, and preferred development alternatives, among others.

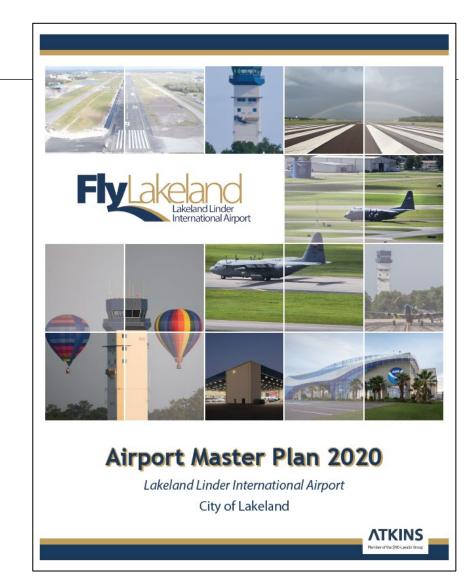




The Airport Master Plan

Implementation

- Drives our Capital Improvement Program to include grant requests and planning with the FAA and FDOT (5 to 10 years).
- Guides our continued facility development, to include aviation and non-aviation elements.
- Protects areas for future needs, like capacity improvements and navigational aids.







FUTURE REVENUE STRATEGIES

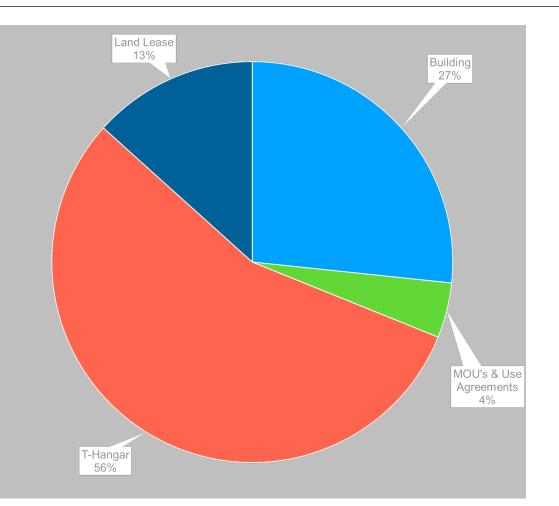




Current Leases

In Summary

- 135 Total Leases:
 - 36 Building Leases
 - 6 MOUs & Use Agreements
 - 75 T-Hangar Agreements
 - 18 Land Leases







Current Leases

Aeronautical vs. Non-Aeronautical

- 109 Aeronautical
- 26 Non-Aeronautical of the 135 Total Leases, 17 are Government

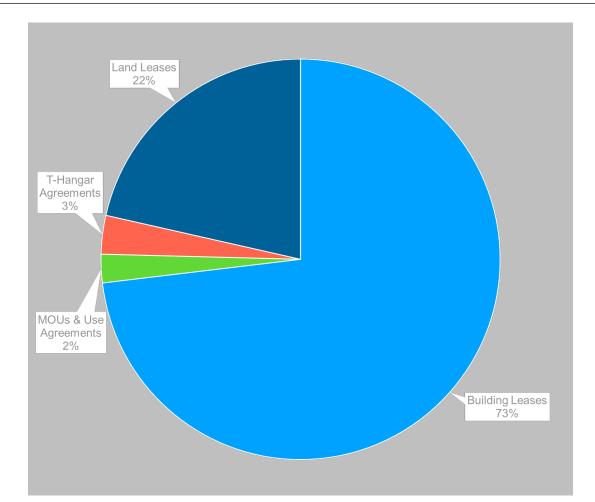






In Summary

- \$9,634,874.66 Total Annual
 - \$7,044,347.78 Building Leases
 - \$221,278.76 MOUs & Use Agreements
 - \$300,300 T-Hangar Agreements
 - \$2,068,948.12 Land Leases







Lease Revenues

Aeronautical vs. Non-Aeronautical

- \$7,272,549.54 Aeronautical
- \$2,362,325.12 Non-Aeronautical

out of total annual lease revenue generated, \$3,317,684.51 is from Government Agreements.







AVAILABLE DEVELOPMENT AREAS

GREEN - Developable Space

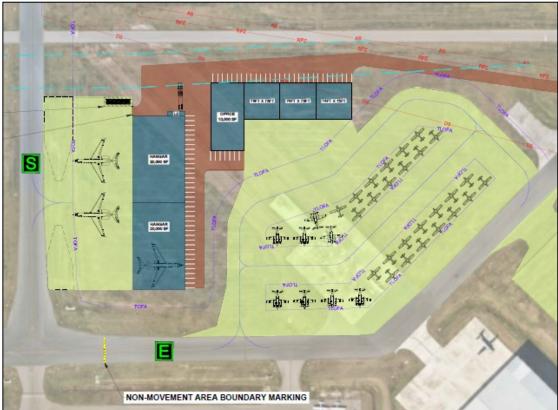
YELLOW - Reserved for SNF

BLUE - Airport Development

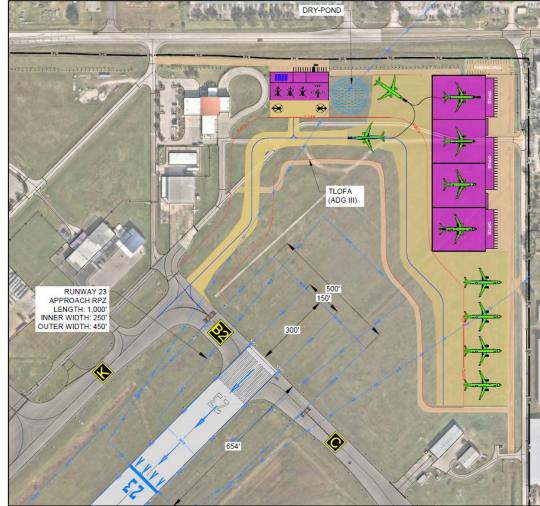
RED - Leased or Under Consideration

AVAILABLE DEVELOPMENT AREAS

Southeast Quadrant



Northeast Quadrant



Where we're heading

- Private Development (Land Leases) vs Airport Development (Building Leases)
- Approximately 171.13 acres remaining for development. * Including Amazon's Option.
- Approximately 54 acres reserved for Terminal Expansion.
- Approximately 724 acres reserved for Air Operations Areas (Runways, Taxiways, RPZs)
 *Not including taxilanes or ramps.
- Approximately 294 acres reserved for future SUN 'n FUN Use.





Private vs. Airport Development

- Private Development (Ground Leases)
 - Current Market Rate on Ground Leases is \$0.40 a square foot (\$17,424 acre/year).
 - Assets constructed would not revert to the City for 50 years.
- Airport Development (Building / Hangar Leases)
 - Current Market Rate on Building Leases range from \$16 a square foot to \$22 a square foot (for 10,000 square feet that's \$160,000 to \$220,000 a year).
 - Places pressure on the airport's capacity to take on additional debt for needed capital projects (Parallel Runway / Terminal Construction). However, those costs are recouped from leases.





Airport

Future Ready Strategy

- 1. Ensure the financial stability and strength of the airport today and tomorrow by pursuing a hybrid leasing strategy, building economic resiliency through diversified revenue sources.
- 2. Leverage our debt capacity responsibly, focusing on the highest and best use of remaining leasable property while also being aware of large capital expenses in the near future.
- 3. Continue to seek out partners (tenants and users) who would add to the economic engine of the airport (high skill high wage jobs).
- 4. Continue to pursue capacity enhancing projects such as the parallel runway terminal expansion, parking areas/structures, and aircraft aprons.
- 5. Be the best Lakeland we can be, providing world-class aeronautical services and opportunities for our community.







Target Area 1 Infrastructure Presentation 2: Airport

Questions







TARGET AREA 1Infrastructure

Presentation 3: Water / Wastewater

- Keeping up with Growth
 - Service Area population expected to grow by about 27% over next 20 years
 - Adding about 44,000 people to the service area
 - Equating to approximately
 - 5.3 MGD of Water demands
 - 5.2 MGD of WW Demands





- Three Wastewater Treatment Plants
 - Glendale 13.7 MGD
 - Northside 8.0 MGD
 - West Lakeland Pretreatment 1 MGD
 - Treats industrial wastewater
 - Sends it all to Glendale





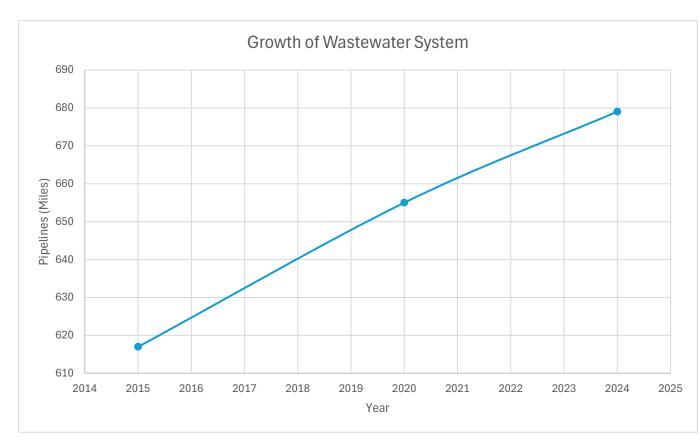
Water Utilities – Growth of the Infrastructure

- 2015
 - 326 Miles of gravity sewer
 - 143 Miles of force main
 - 156 Pump Stations
- 2024
 - 345 Miles of gravity sewer
 - 167 Miles of force main
 - 186 Pump Stations





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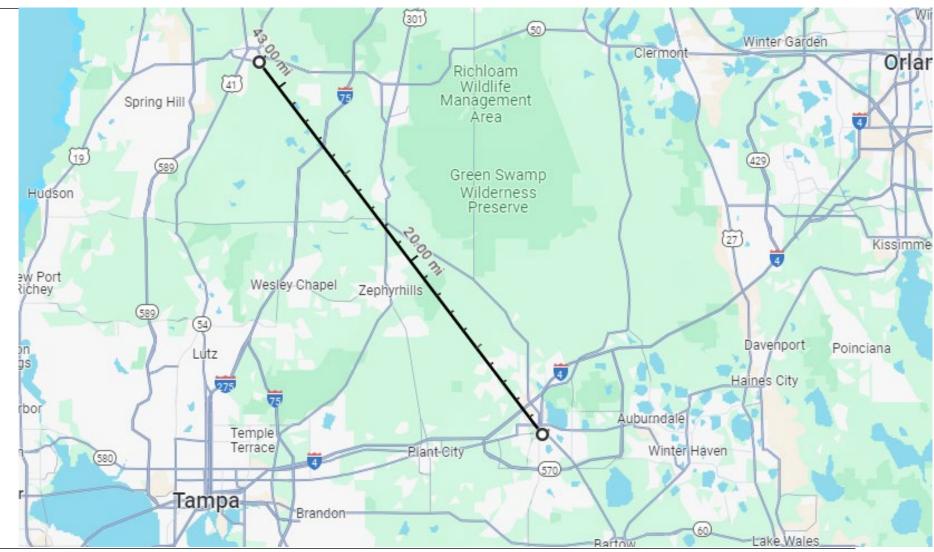


Water Utilities – Growth of the Infrastructure

Added 43 miles of sewer pipe since 2015

Lakeland to Brooksville



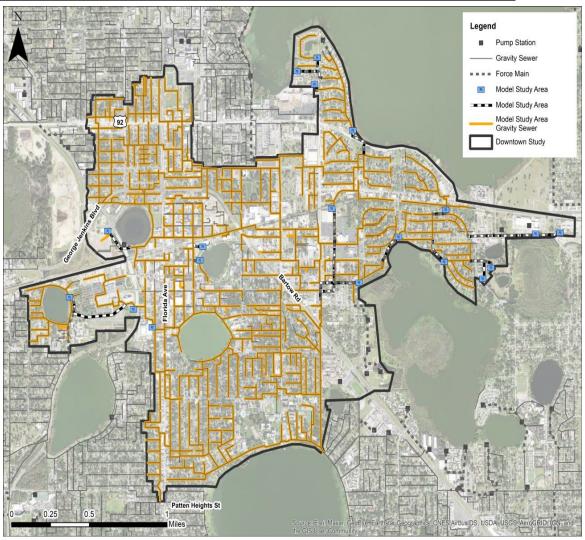


- WW Master Plan was completed in January, 2024
- New plan covers 20-year planning period
- Identified Infrastructure needs totaling \$200M
- The plan did not contemplate extending utilities to reach new development.



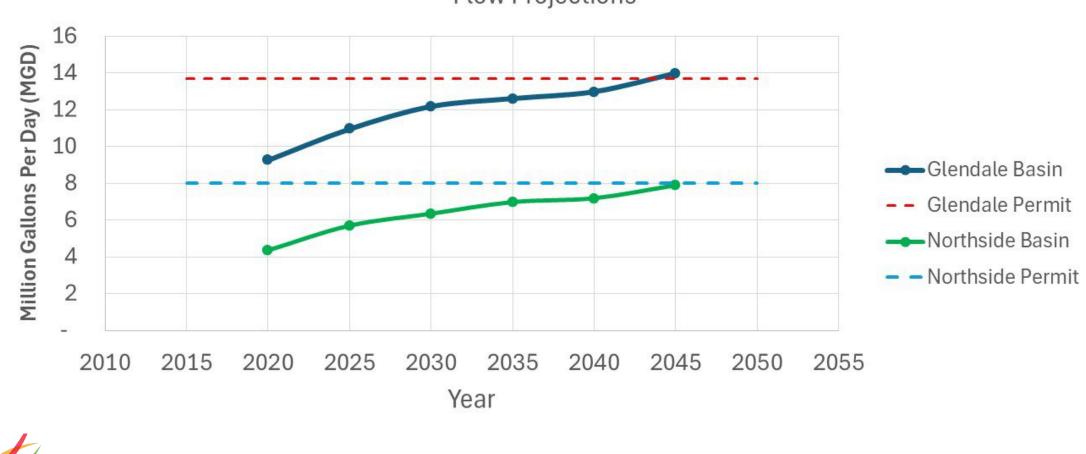
Water Utilities – Wastewater Master Plan

- Downtown WW plan completed
- Plan covers 20-year planning period
- Identified \$20M in infrastructure needs based on new growth
- The plan did not contemplate extending utilities to reach new development.





Water Utilities – Wastewater Flow Projections



Flow Projections



Other Wastewater Challenges

Plant Improvements planned over next five years -

- New Effluent Pump Station \$38M
- Equipment / Tank Rehab \$10M
- Chlorine Conversion \$2M
- Digester Improvements \$12M





Other Wastewater Challenges

- Plant upgrades planned over next five years -
 - New Effluent Pump Station \$38M
 - Equipment / Tank Rehab \$10M
 - Chlorine Conversion \$2M
 - Digester Improvements \$12M
 - Bio-Solids
 - Composting \$22M

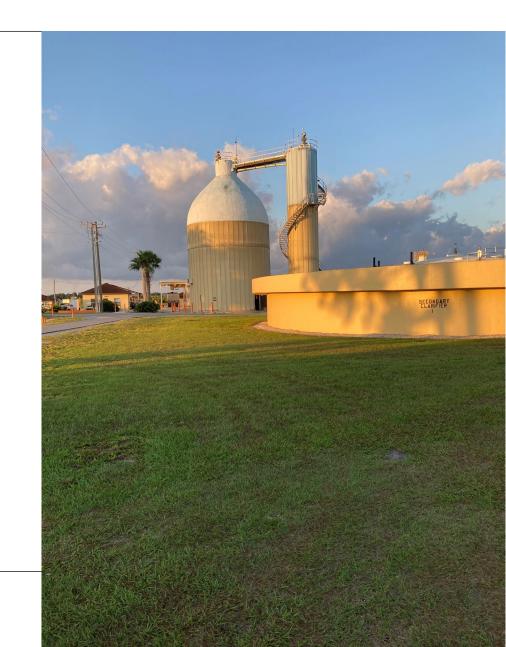


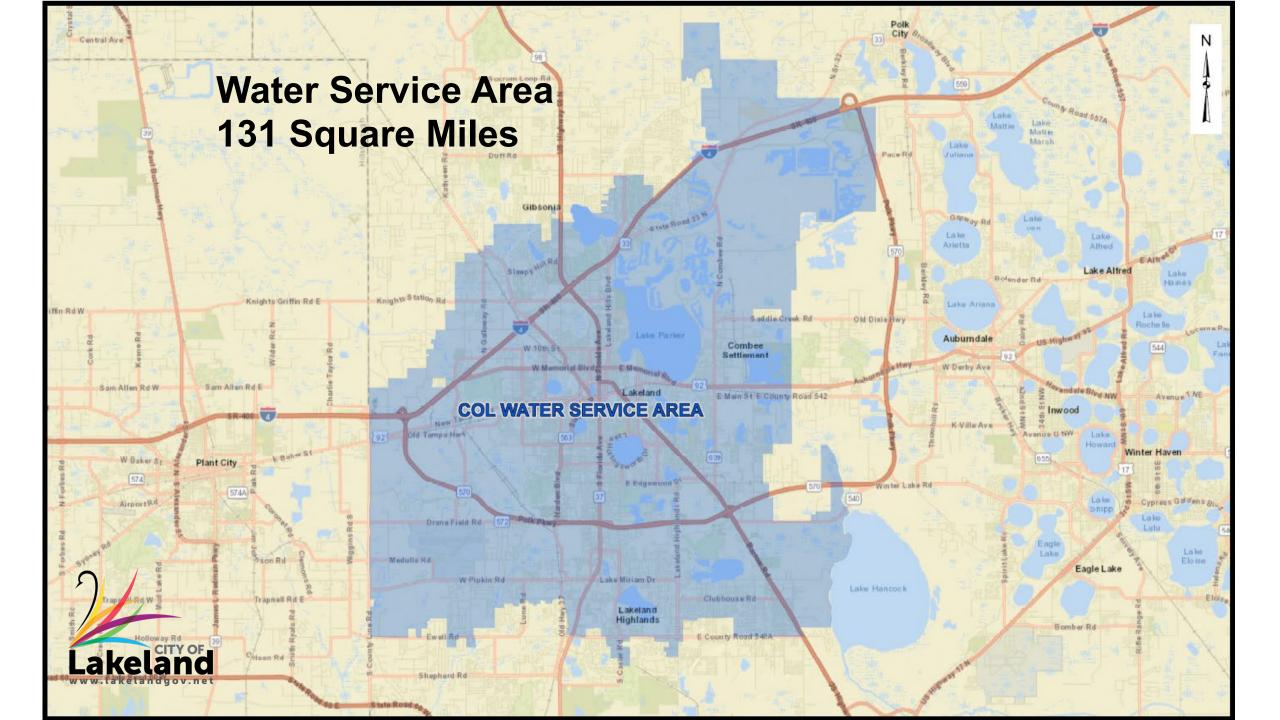


Other Wastewater Challenges

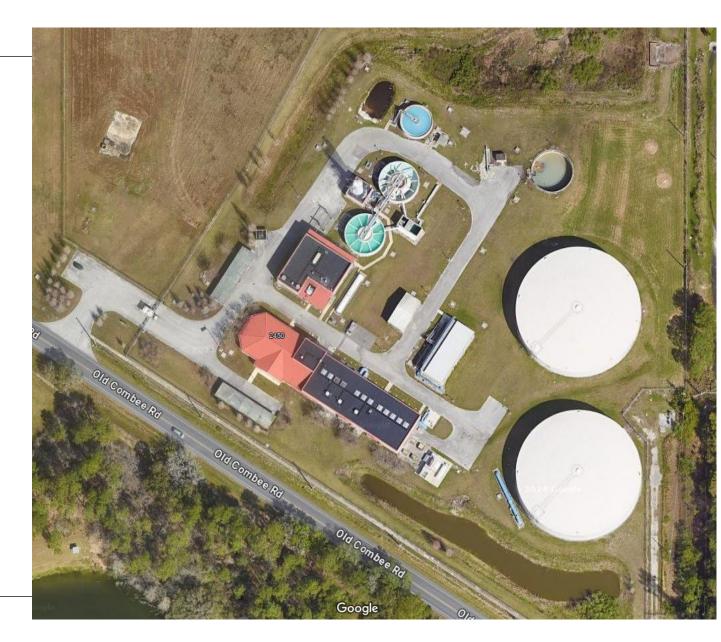
- Plant upgrades planned over next five years -
 - New Effluent Pump Station \$38M
 - Equipment / Tank Rehab \$10M
 - Chlorine Conversion \$2M
 - Digester Improvements \$12M
 - Bio-Solids
 - Composting \$22M
- Build Plant Capacity > \$100M
- \$220M from master plans
- TOTAL ~ \$400M Over Next 20 years







- Two water treatment plants
 - TB Williams WTP 51MGD
 - 13 Wells
 - Combee WTP 8 MGD
 - 6 Wells



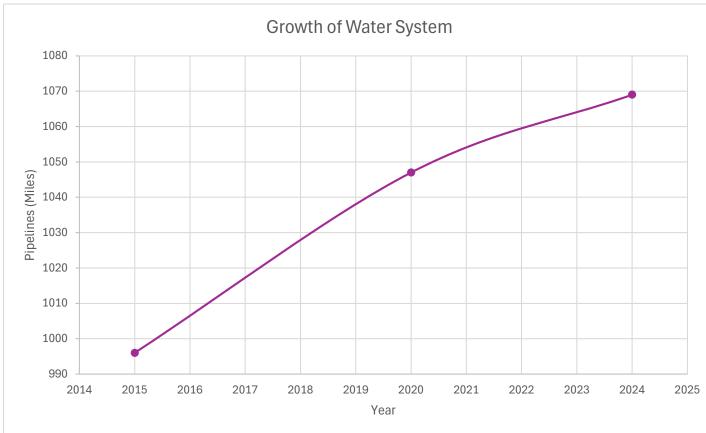


- 2015
 - 996 Miles of Water Mains
 - 4225 Fire Hydrants
- 2024
 - 1069 Miles of Water Mains
 - 4658 Fire Hydrants



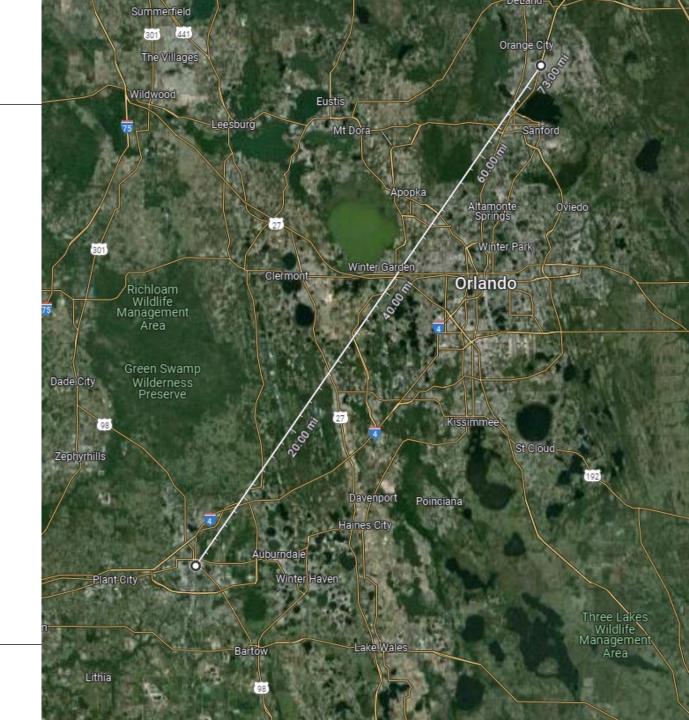


- 2015
 - 996 Miles of Water Mains
 - 4225 Fire Hydrants
- 2024
 - 1069 Miles of Water Mains
 - 4658 Fire Hydrants





- Added 73 miles of water mains since 2015
- From Lakeland to Deltona
- Added 433 hydrants



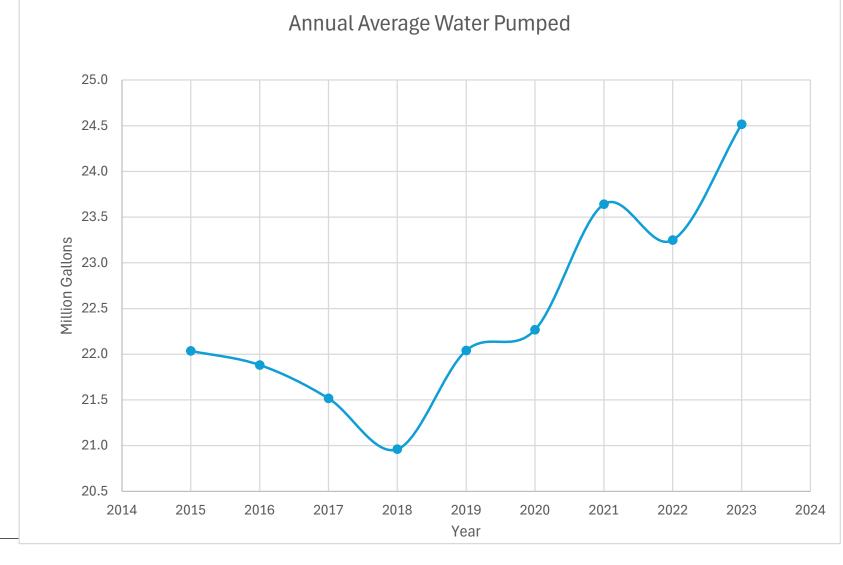


- Water Pumped
 - 2015 22.0 MGD
 - 2020 22.2 MGD
 - 2023 24.5 MGD
- Consumptive Use
 Permit
 - ~ 35 MGD
 - Expires 2038





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 - 2015 22.0 MGD
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 Permit
 - ~ 35 MGD
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Water Utilities - PRWC

- Two current projects
 - Southeast LFA Well Field
 - 12.5 MGD withdrawal
 - Lakeland will take 0.1 MGD
 - West Polk LFA Well Field
 - 10 MGD withdrawal
 - Lakeland will take ~ 6.3 MGD







Water Utilities - PRWC

- West Polk project possibly delayed with water being delivered in 2032
- Estimated Capital Costs at Buildout ~ \$414M
- Rates are under review to pay for AWS

WP Wellfield Capacity vs. AWS Commitment 10.0 Earliest to Latest Delivery 7.5 **GPW** 5.0 If design and If demands dictate construction dictates 2.5 2.99 0.72 ൙ 1.77 0.0 2029 2036 2030 2035 2025 2040 2045 YEAR WPLFA Wellfield Capacity (7.5 MGD) -WPLFA WPF AWS Demand



- Asset Management Plan Drinking Water
 - Completed in 2022
 - Identified \$16.8M of replacements needed over next 7 years
 - Useful life less than 10 years
 - Replace all Asbestos Concrete (AC) pipe





- Water Master Plan
 - Working to hire consultant to produce a master plan similar to the Wastewater
 - Determine where our system constraints are located
 - Further develop our hydraulic model for water
 - Ensure we can meet fire flow demands as growth continues



- Septic to Sewer projects
- Approximately 5700 Septic tanks in City Limits
- SB 1379 approved 05/30/2023
- Requires consideration to provide sewer service under certain conditions





- Per-and Polyfluoroalkyl substances (PFAS)
 - Drinking Water
 - Final Rule For Drinking Water 2024 Q2
 - Currently meet all thresholds
 - Additional Sampling will be required in future
 - Wastewater
 - PFAS can be found in Biosolids
 - No regulations/rules yet







LEAD SERVICE LINE INVENTORY

Meter Pit

PROPERT

PUBLIC SPACE PRIVATE

PROPERTY

VATER MAIL

- EPA's Lead and Copper Rule Revisions (LCRR)
 - Public Facing Database completed by 10-16-24
 - Unknowns are considered to be lead.
 - We don't believe we have what the EPA is defining as a lead service, but we have many unknowns





Water Utilities – Smart Grid Meter Installation by Contractor

- Contractor working on Smart Meter project will verify materials on both sides of meter.
- Project is starting this month



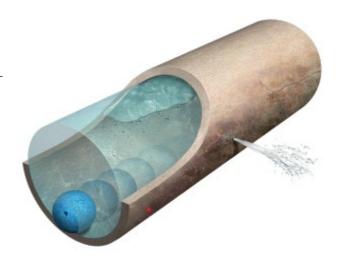


- Composting \$22M
 - Possible Revenue
 - Regional Partners
 - Possible savings for Solid Waste
 - Possibly eliminates some plant rehab projects





- Smart Inspections
- Inserted into pressurized pipe
- Locates small leaks
- Tracked throughout the inspection
- Confirms location of pipelines







Lakeland

SmartBall

INLINE FREE-SWIMMING PIPELINE INSPECTION PLATFORM

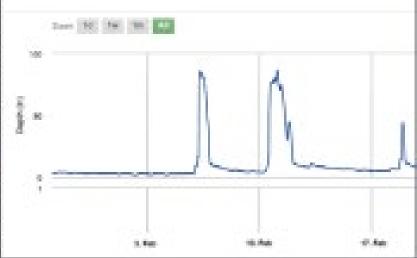
- Smart Manhole Level Sensors
 - Measure Rising Levels within the pipe
 - Send alarms to central location
 - Predicts backups
 - Minimizes overflows



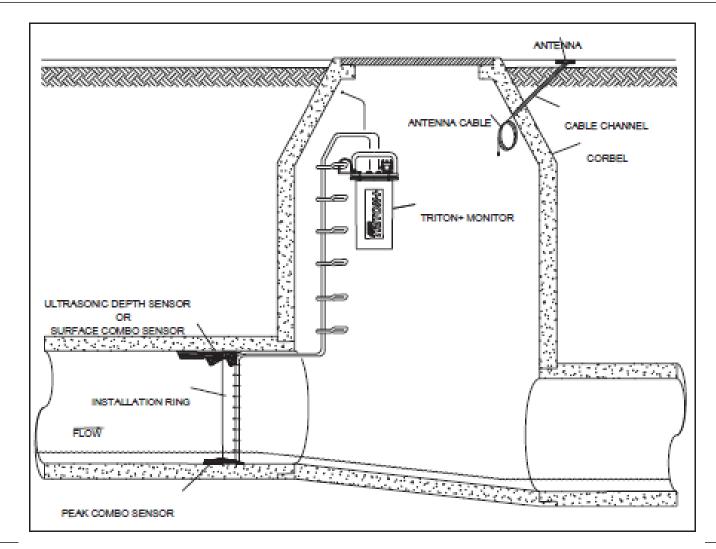




HYDROGRAPH



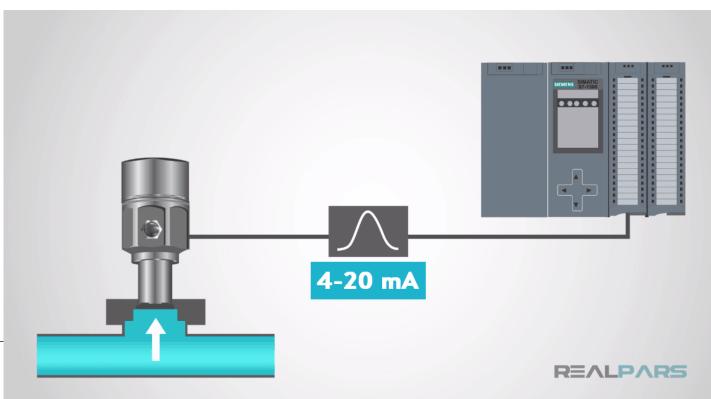
- Smart flow meters
 - Similar to smart covers
 - Measures depth
 - Reports flow in GPM
 - Sends alarms
 - Minimizes overflows





Installation with Antenna Cable Coiled in Manhole

- Remote Pressure Sensors on the water system
 - Install at our Lift Station locations to use telemetry
 - Monitor water system pressure real time
 - Pressure drops can indicate leaks or large usage in regional areas
 - Assist with water model calibration





Department Opportunities

- Funding sources
 - Rates/Impact fees
 - Bonds
 - Two-year completion window
 - Loans
 - State Revolving Fund Loan (SRF)
 - Low Interest Loans
 - Twenty Year Debt Service
 - Water Infrastructure Finance and Innovation Act (WIFIA)
 - Grants
 - Legislative
 - Other



Department Opportunities

- Explore Public-Private Partnerships (P3)
 - Great record of on time and on budget delivery
 - Can transfer certain risks to private sector
 - Can lower the costs of infrastructure to public
 - Upfront costs can be paid by private entity with payback over time





Target Area 1 Infrastructure Presentation 3: Water / Wastewater

Questions



TARGET AREA 1Infrastructure

Presentation 4: Lakeland Electric

Lakeland Electric Strategic Initiatives 2024

- Address <u>Capacity Planning</u> for long-term sustainability
- Invest in <u>Aging Infrastructure</u> to maintain reliability
- Manage <u>Emerging Technology</u> to keep pace with energy transition
- Drive <u>Organizational Alignment</u> to support technology needs
- Continue to safeguard organization from <u>Physical/Cybersecurity Risks</u>
- Monitor <u>New Regulations</u> to reduce operational and financial exposure







Target Area 1 Infrastructure Presentation 4: Lakeland Electric

Questions

Target Area 1 – Infrastructure Setting Goals:



Strategic Planning – Recap Day 2

