NEOCITY

MASTER PLAN

AUGUST 2017

ACKNOWLEDGMENTS

Beginning in June 2016, Osceola County, Florida enlisted Perkins+Will to prepare a master plan for a former piece of agricultural land near downtown Kissimmee. Over the course of approximately one year, the vision contained within this document emerged, and not without substantial effort on the part of many individuals. None of this vision would have been possible without the dedicated work of Osceola County leadership and staff, as well as numerous other partners, stakeholders, and consultant team members.


PERKINS+WILL

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IMPLEMENTATION
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IMPACTS + MEASURES OF SUCCESS
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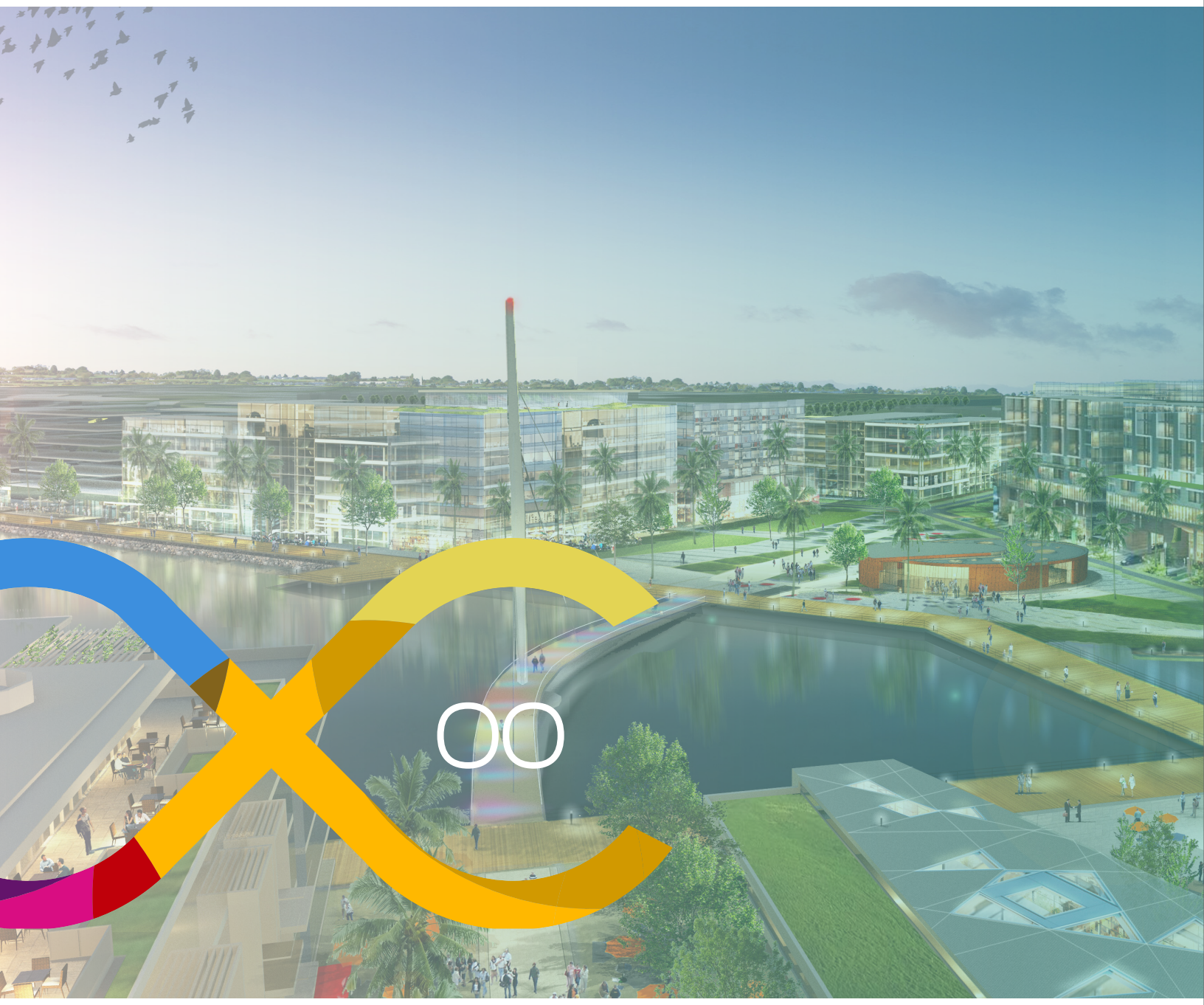

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EXECUTIVE SUMMARY

“We expect this to be a magnet for attracting new investment, creating high-wage jobs and spotlighting the groundbreaking work of UCF’s programs in photonics, optics, and engineering.”

—Viviana Janer,
Chairwoman Osceola County, FL Board of Commissioners

POISED FOR ECONOMIC OPPORTUNITY

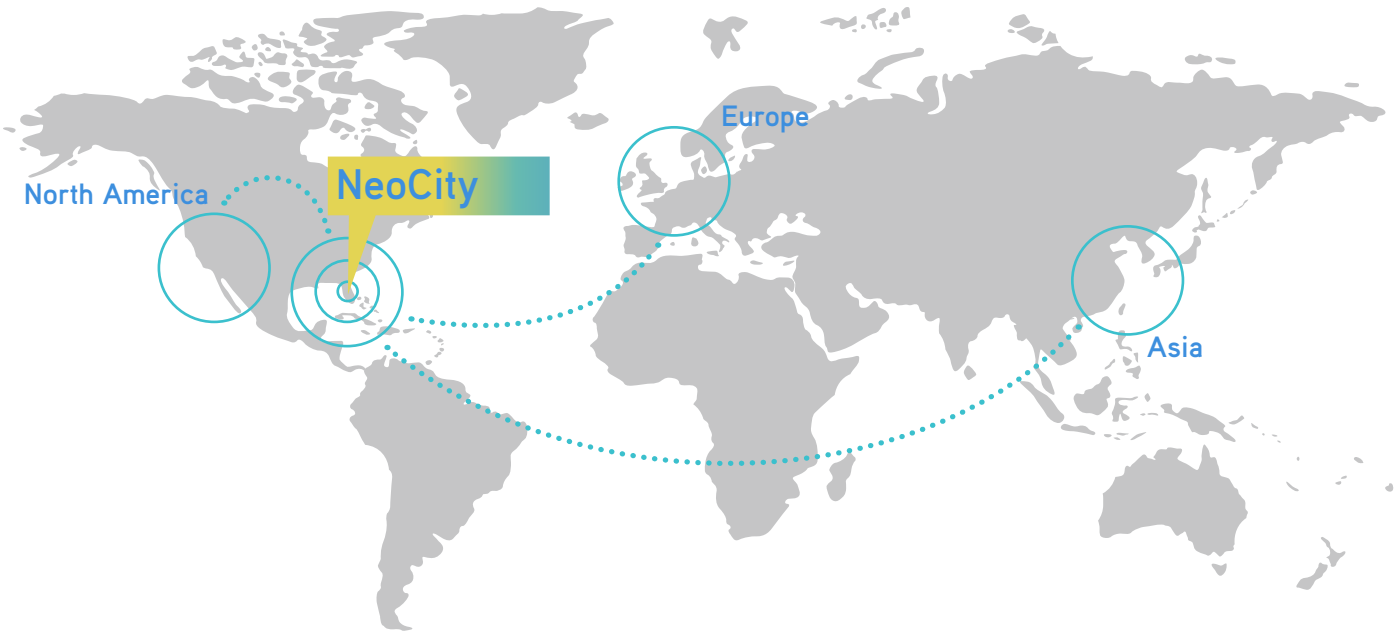
NeoCity is poised to become the most significant and comprehensive global center for smart sensor, photonics, and nano-technology research and development. As the center point for technology development in the state of Florida, NeoCity will catalyze job creation and talent development in Osceola County that will have regional, national, and international implications. This economic opportunity, if directed effectively, can have far-reaching benefits for the community.

The physical development framework of this master plan has been designed to support, and be supported by, the enormous research commercialization potential of NeoCity. It presents a visionary framework for the long-term development of the site, grounded by near-term priority objectives. It will allow Osceola County to build on NeoCity's early success in establishing national and international industry partners as anchor tenants and reap the long-term economic benefits of early-stage planning. Grasping this economic potential will require a holistic approach to workforce education and development, opportunities for related manufacturing businesses, environmental sustainability, quality of life, and place-making.

GLOBAL TECH LEADERS AGREE:

The next disruptive market explosion will be a "semiconductor-based" connected device enabled by production of advanced smart sensors.

- Angelou Economics



Global potential exists for NeoCity through partnerships and consortia

SITE AREA **482.5 acres**

DEVELOPABLE PARCELS AREA **180 acres**

NeoCity Master Plan Illustrative Aerial


Trail 2.9 mi
Linear Parks 2.5 mi
Boardwalk 1.1 mi
Roads 10.0 mi
Dedicated Bike Lanes 2.2 mi
Open Space 15 acres
Structural Landscape 36 acres
Urban Farm 10 acres
Water 166 acres

ECONOMIC IMPACT OF NEOCITY

The economic impact potential of NeoCity should not be understated. As the Master Plan is implemented, NeoCity will create jobs, diversify the employment base, increase incomes, and boost local tax revenues.

- Residential
- Civic Use
- Office
- General Research (High Bay)
- Large Format Flex Space
- High Tech Scale Up
- Parking

Modeling Long-term Development Potential

The economic impact potential was estimated using two different scenarios during the master plan process: an office-weighted scenario and an industrial-weighted scenario. The office-weighted scenario (shown below) offers more commercial space at full build out. Given that commercial space has a higher employment density, the residential component is subsequently larger as well.

Using assumed medium-density development (2-8 floors), a potential development yield has been identified to demonstrate the impacts this diverse and vibrant new district could bring to Osceola County.

Office-weighted development scenario

Building Square Footage by Product Type: (Office Weighted Scenario)

Building Type	Square feet
Commercial	8.5M
Industrial	0.7M
Residential	1.7M
Total	10.9M

Long-Term Total Economic Output

$25.3 Billion to $28.8 Billion

PREDICTED TAX REVENUE ALLOCATIONS
AT FULL BUILD OUT

TAXABLE VALUE OF PROPERTY AT FULL BUILD-OUT:
$1.5 BILLION TO $2.1 BILLION

50 YEAR TOTAL CUMULATIVE TAX REVENUE:
$781 MILLION TO $831 MILLION

POTENTIAL JOBS + LABOR INCOME AT FULL BUILD OUT

DIRECT
Jobs: 26,900 - 34,300
Labor Incomes: $4.6Bn - $4.7Bn

INDIRECT
Jobs: 40,700 - 45,300
Labor Incomes: $2.2Bn - $2.4Bn

INDUCED
Jobs: 45,700 - 48,100
Labor Incomes: $2.0Bn - $2.1Bn

The Economic Impact Assessment for NeoCity covered near-term (10-year), medium-term (25-year), and long-term (50-year) time frames. Assessments at these ranges are based on assumptions for the future of the district and economic growth, but are useful in creating an understanding of the potential of NeoCity to contribute to the local economy if developed according to the Master Plan.

In the case of NeoCity, the economic impact assessment identified the potential for NeoCity to become Osceola County's largest tax payer based on total taxable value of property.

1 **RAIN SENSOR /** Measuring flow of rainwater catchment and control.

2 **CONTROL TINT SOLAR SCREENING GLASS /** Glare control and energy generation from glazing allowing for electricity feedback into the grid.

3 **AUTOMATED CAR FRIENDLY /** Guide strips and cutting edge streetscape which are easily navigable by autonomous vehicles to ensure compatible design.

4 **PARKING METER DATA COLLECTORS /** bluetooth sensors in parking meters tracking street activity and utilization

5 **ACTIVE WEARABLES /** District monitoring through sign-up of residents, visitors, and workers, building a body of data for district improvements and programming.

A MASTER PLAN FOR THE INTERNET OF THINGS

The integration of smart sensors, mobile devices, and real-time data is shaping the way that we interact with and adapt to the world around us. This is not business as usual.

The ability to communicate on the move provides us with freedom to use places and spaces in ways previously not conceived of, such as the mobile or remote office, the conference call from the park, 24-hour communication, and more.

The inclusion of and communication between sensors within our devices, the devices of other users, and the built spaces around us allows us to interpret and understand our environment in new ways, like preemptively changing routes to avoid congestion or discovering places via our mobile mapping and GPS tools instead of physical signage.

The real-time accessibility and synthesis of data from the built environment can help to maximize enjoyment and minimize wasted time. For instance, a bus enabled with GPS tracking that communicates its proximity to your mobile device so that you can precisely time your walk to the transit stop to be right on time.

The benefits of integrated sensor technologies also allow us to make better use of our spaces and place emphasis on what really matters in the built environment. For example, predicted efficiencies in vehicle technology and wayfinding mean more focus can be placed on creating personal experience and sense of place rather than simply accommodating functional requirements.

The NeoCity Master Plan thinks ahead to the incorporation of these advancements in sensor and connected mobile communication and intends to provide a real world testing ground for these technologies. A few scenarios of how these technologies might function within NeoCity are illustrated on the following pages.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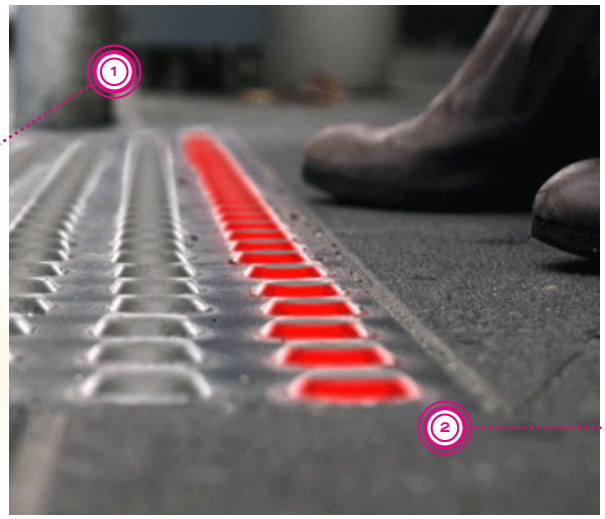

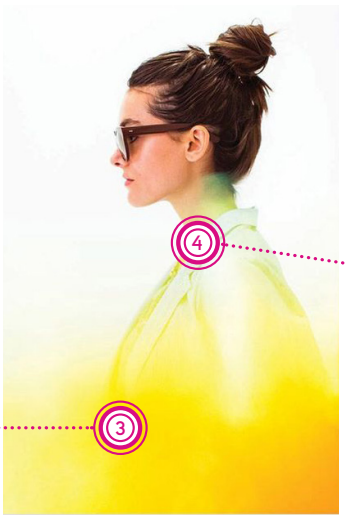

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PERSON APPROACHING CROSSWALK

An interactive built environment can greatly enhance the user's experience of and connection to a space. The explosion of wearable technologies can help us understand our environment in ways never explored before and makes data about use and experience available to the whole community.

1 **Embedded sensors /** Sensors in the pavement detect approach and movement of pedestrians in real time.

2 **User experience /** Sensors trigger the traffic light to switch, allowing pedestrians to cross.

3 **User comfort /** The sensors can also monitor ambient environmental conditions during times of high use, which may illuminate why some spaces are more popular than others.

4 **Wearable sensor /** Sensors in the environment may connect with personal wearable technology, integrating both data sets.

5 **Usable Data /** Based on user data provided by their wearable technology, assumptions can be made about what kind of activities that user is doing within the space.

6 **Maintenance and Improvements /** Quantifiable data about the active use of the built environment allows targeted repair, maintenance, and improvement scheduling.

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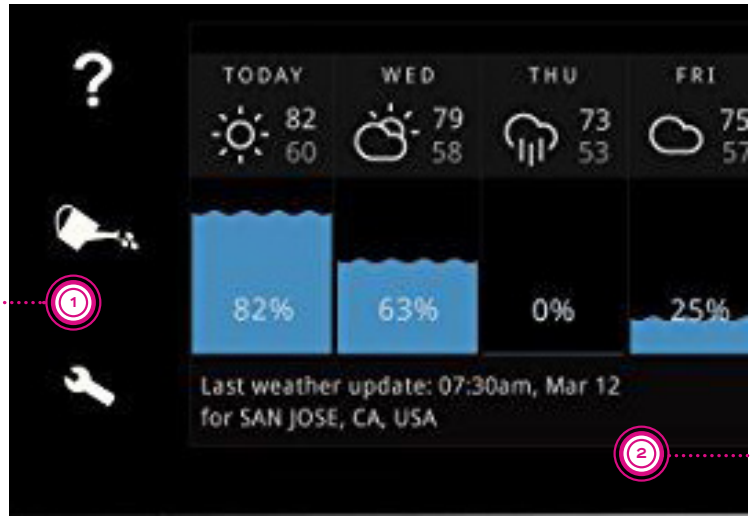
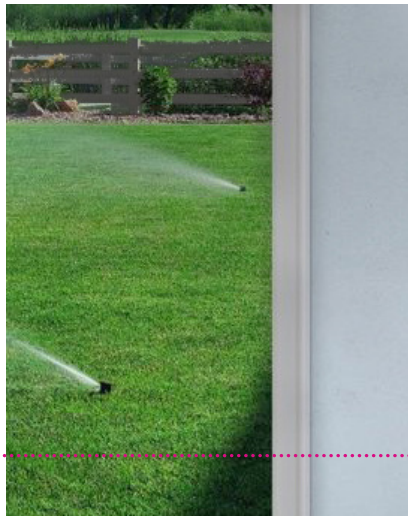
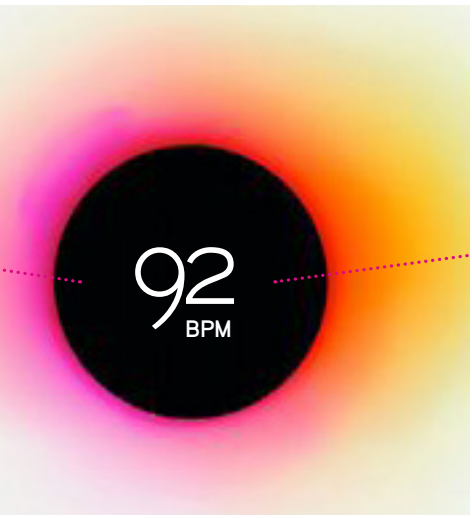
GALLONS OF WATER NEEDED TODAY







NeoCity has the opportunity to combine the site's agricultural past with cutting edge sensor technology research and development to provide the future of farming. Interest in sustainable urban and vertical farming has grown in significance in recent years with a heavy emphasis on the conservation of water

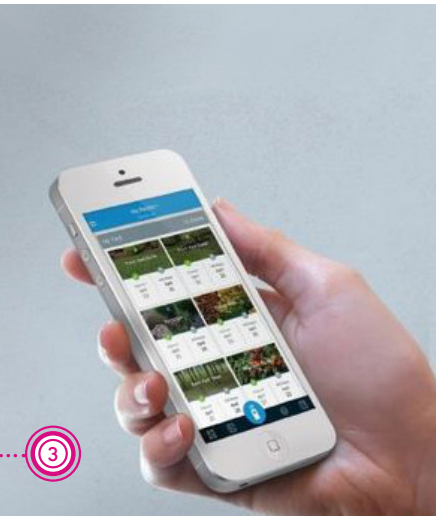
1 **Water Consumption /** Water is one of the most precious resources we have and irrigation is one of the largest uses of water in today's society.

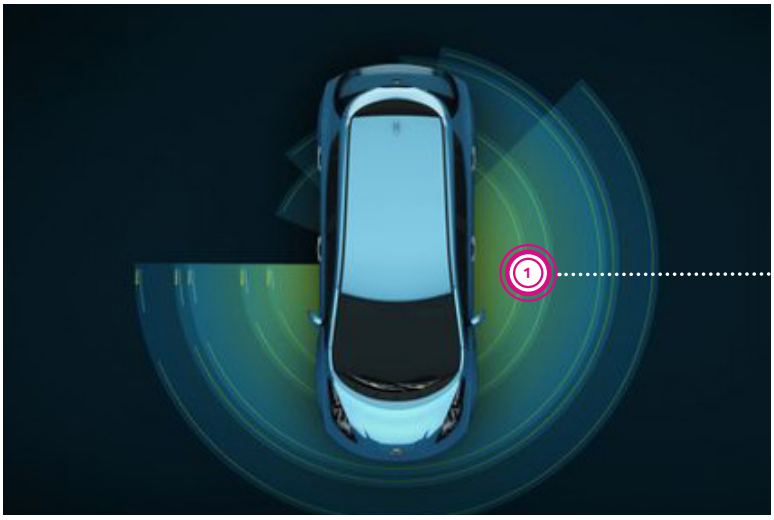
2 **Irrigation monitors /** Sensors monitor the environment and soil in real-time and allow the system to be adjusted accordingly, ensuring the conservation of resources.

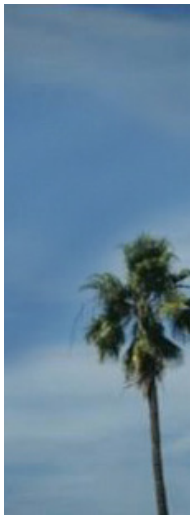
3 **Predictive Patterns /** Analysis of big data allows for trends in water use to emerge and the evaluation of the system for inefficiencies.

4 **Robotics /** Integration of automated and robotic farming techniques reduces the potential for human error and allows for higher crop yields in smaller spaces, both indoor and outdoor.

5 **Natural benefits /** All of these technologies promote greater plant density and diversity, which conserves resources through ambient cooling, reduces chemical reliance due to the natural replenishment of soil nutrients, and creates more hospitable environments for users.







The course of mobility is rapidly changing. The single occupancy vehicles of the past are evolving through advances in autonomous technology and the multitude of smaller, more flexible forms of mobility which are emerging.

1. **Smart Vehicles /** Vehicles are beginning to have the ability to read the world around, allowing them to supplement or even take over from human control needs.

2. **Turn by Turn /** Integrated GPS, digital mapping, and real time data allows reliable directions to any location without the need to follow physical signage.

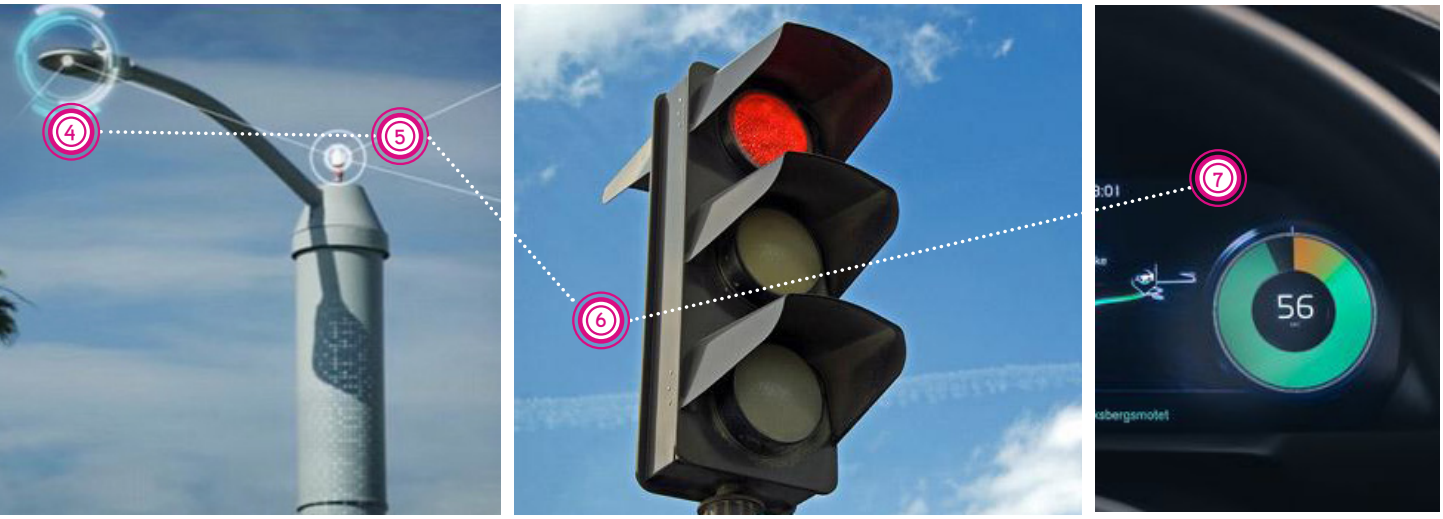
3. **Reading the Road /** Cameras and integrated sensors observe the road for changes and unexpected hazards, making travel safer for all users.

4. **Smart Lighting /** Sensor responsive lighting allows temperature and intensity to be balanced with the environmental conditions to provide the best visibility.

5. **Monitoring Movement /** Open source sensors provide a wealth of data on how users move through a district, clusters of activity, and congestion allowing analysis and adjustments.

6. **Responsive Controls /** Algorithms for street controls update with live information on vehicle approach and speed to maximize efficiency of movement.

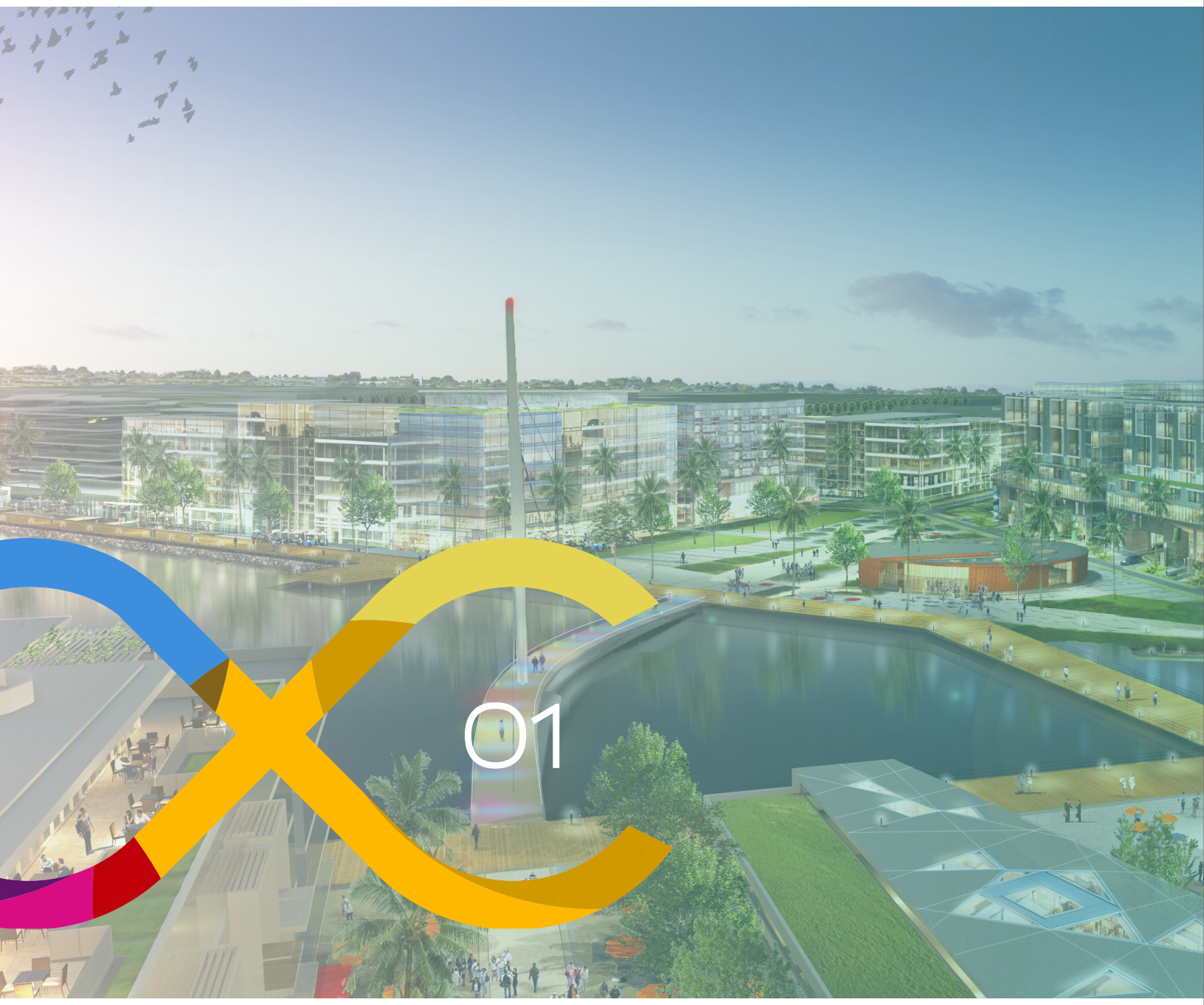
7. **Less Energy Consumption /** More efficient traffic flows allow for less energy wastage, improved air quality, and better resource conservation.



Embedding Technology

The integration of responsive technology into the historically static built form will take time. There are unlikely to be the seismic shifts in short periods of time, as there have been in personal device technologies. However, NeoCity is uniquely positioned to implement and pilot the cutting edge ideas in situ, acting as the proving grounds for the technology that will one day become the new norm for smart cities.

Proliferation of technology is a gateway to better data for understanding and improving our built environment.



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VISION + DRIVING FORCES

VISION

Creating a mold-breaking 21st Century model for long-term public-private industry development is the priority for this comprehensive master plan over the next 50 years.

NeoCity is a 483-acre technology district inspired by an ethos of collaboration and designed to transform the way we ideate, create, and innovate. Here, burgeoning concepts will gestate into mature technologies, from smart sensors and photonics to software applications and process improvements in science and engineering. NeoCity is envisioned as an innovation epicenter, a source of high quality jobs set within a mixed-use research and technology destination of regional, state, national and global impact.

The NeoCity Master Plan brings the design, economic development, and job creation efforts of Osceola County into sharp focus. It galvanizes planning efforts of County-owned land between Kissimmee and St. Cloud, on the edge of Lake Toho. NeoCity is anticipated to be a leader in sustainable development, integrated into an increasingly interconnected network of growing population centers south of Orlando, Florida.

NeoCity is anchored by BRIDG, a not-for-profit, industry-friendly consortium focused on manufacturing development of advanced technologies in smart sensors, imaging, advanced devices, and 2.5D/3D chip integration. BRIDG is located in a new state of the art facility, recently opened within NeoCity.

Long-range vision of a central waterfront boardwalk connecting research, industry, and community.

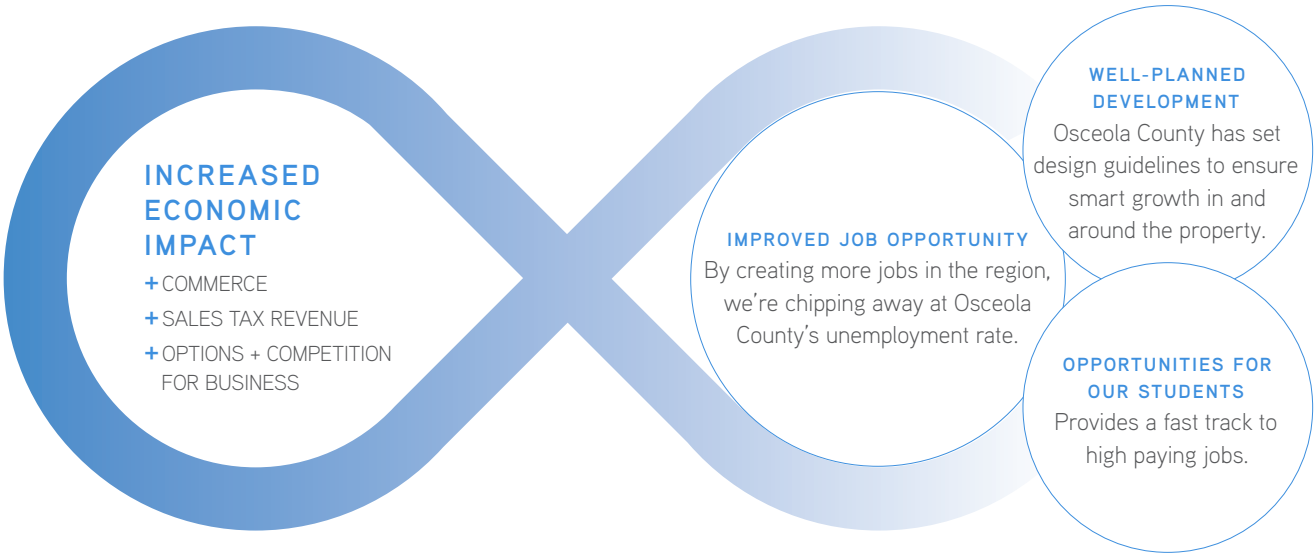
The vision for NeoCity is based on an economic development opportunity which Osceola County is poised to take advantage of. Its physical location is globally, regionally, and locally suited and the right people and partnerships are in place to make it happen.

Through engagement with Osceola County stakeholders, the Perkins+Will team distilled the vision for NeoCity into a single statement to guide the design process for the NeoCity Master Plan.

VISION STATEMENT: NeoCity is a global location for private, technology-based development in a high-quality, collaborative environment that supports local job creation.

NeoCity has the opportunity to break away from traditional research park development patterns by providing a unique place within Osceola County and Central Florida. Its walkable, urban framework connects people back to the community and natural landscape around it while reinvigorating the job market within the region.

DESIGN MOTIVATION: The design of this Master Plan is underpinned by the motivation to create a dramatic shift in the quality and design of the built environment in Osceola County, embedding progressive urban design principles, policies, and practices into a development form tailored to cutting edge collaborative research, development, innovation, and commercialization.



Osceola County's Vision for NeoCity

DRIVING FORCES

WORKFORCE + ARCHITECTURE + CONNECTIONS + PUBLIC REALM + RESEARCH + WAYFINDING + ACCESSIBILITY + COMMUNITY + PROGRAMMED EVENTS + TECHNOLOGY + ACTIVITIES + SENSE OF PLACE + AMENITIES + URBAN FORM + BUILDING HEIGHTS + CULTURE + EDUCATION + DENSITY + BRANDING + ENCLOSURE + CHARACTER + MARKETING + WATER FEATURES + RESOURCE MANAGEMENT + INNOVATION + INDUSTRY PARTNERSHIPS + COLLABORATION + RESILIENCY + LANDSCAPE + TALENT + STORMWATER + OUTDOOR SPACES + SUSTAINABILITY + START-UPS

Interactive design process included County Staff, TWA staff, City of Kissimmee

From day one, the design team moved quickly and efficiently, collaborating on sketch layouts and facilitating decisions from effective and decisive Osceola County representatives. Input from multiple stakeholder interviews conducted over the course of the "Immerse" charrette were infused into the designs. These initial sketches allowed for creativity to lead the discussion and for the planning team and County representatives to collaborate on design development.

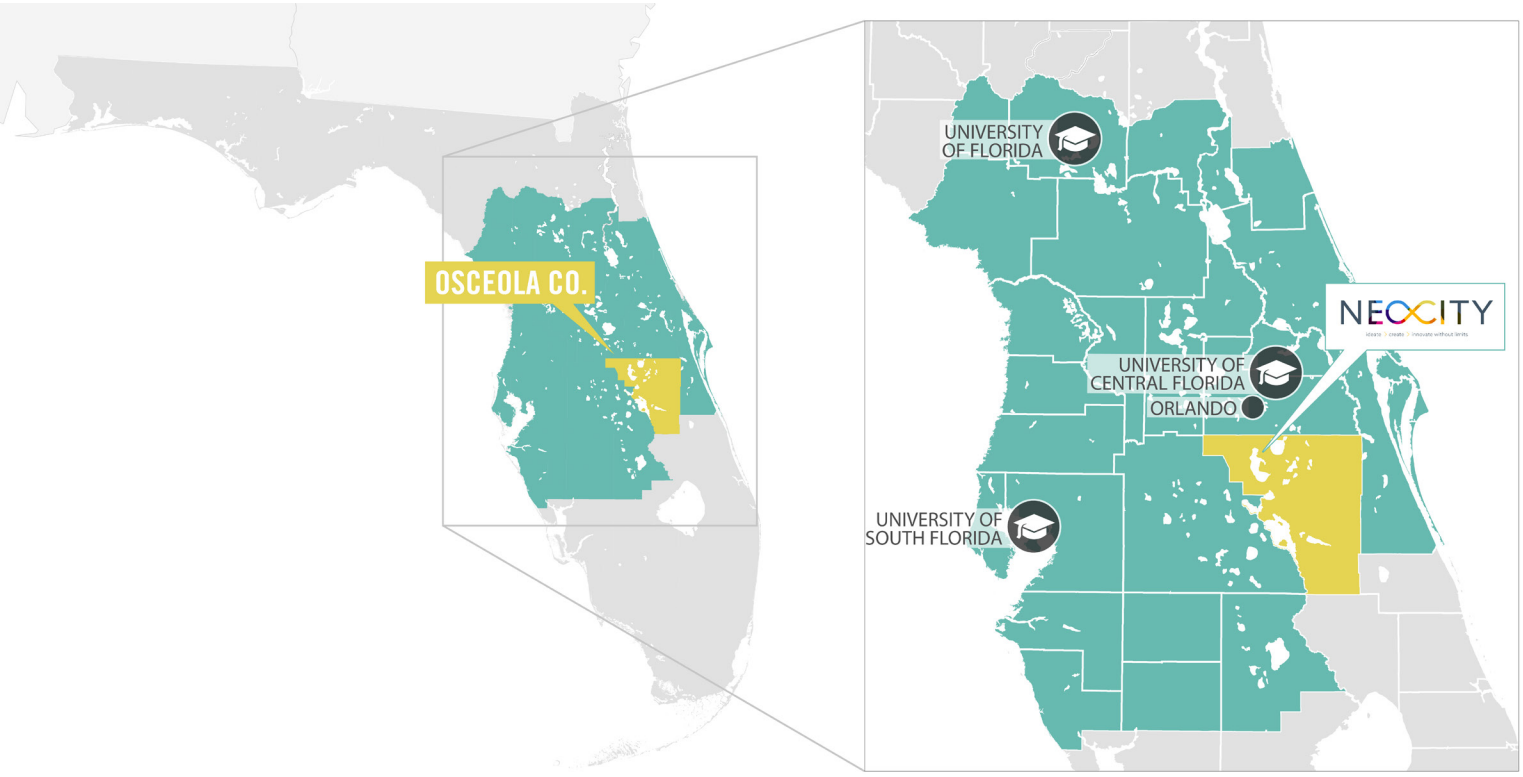
RIGHT TIME, RIGHT PLACE

By 2020 Smart Sensors are expected to be the dominant product for semi-conductor manufacturing. 50 billion devices [objects, buildings, infrastructure] will be connected by sensors.
-Angelou Economics

Located within the regional Florida High Tech Corridor, NeoCity competes in the global market of international advanced manufacturing and smart sensor technology. NeoCity will become a premier master planned campus that will serve as a global center of advanced research including:

- Corporate Partners for Sensor R&D
- Collaboration of International University Research Centers
- Big Data & Predictive Analytics focused corporate partners
- DOD, DOE and Homeland Security partnerships
- Global Centers for Sensor Related Advanced Research & Development

Located in Central Florida just south of Orlando, Osceola County has strategic highway connections to Downtown Orlando and the Orlando International Airport (just 20 minutes from the site), with passenger rail slated to connect to these destinations by 2020. Through its long-range master plan, Osceola County has also identified land in strategic locations for flexible industrial manufacturing development to support R&D activities in NeoCity.



Florida High Tech Corridor

Regional Innovation Ecosystem Locations

Colleges + Universities

1. University of Central Florida
2. Valencia College

Healthcare

1. Florida Hospital Health Village
2. Lake Nona
3. Orlando Health

Tech + Innovation Centers

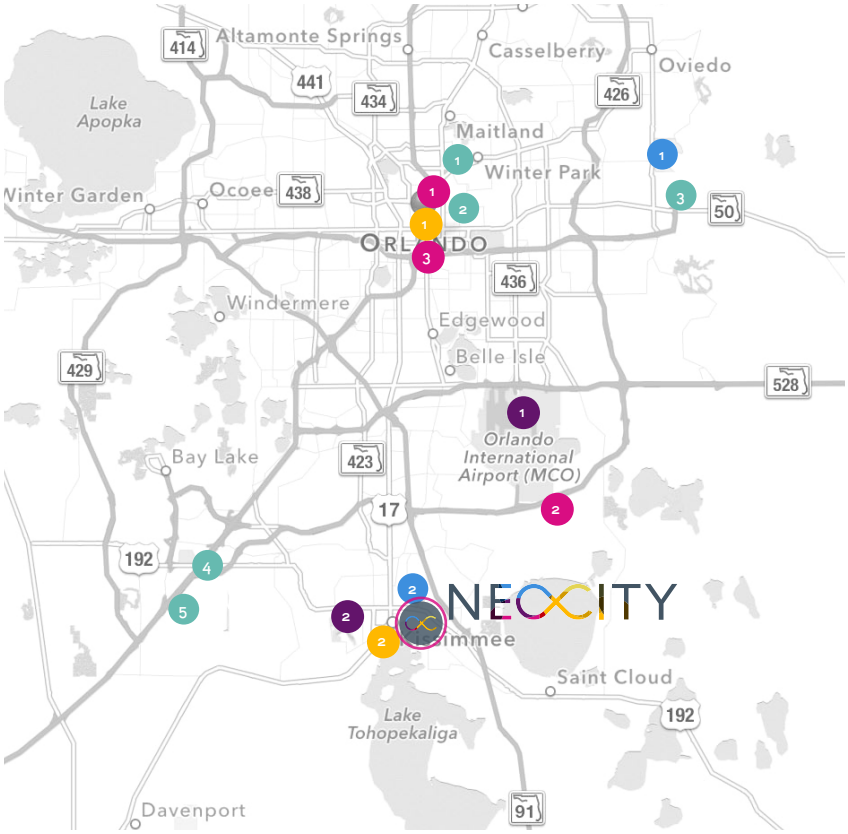
1. Winter Park Cluster
2. National Entrepreneur Center
3. Central Florida Research Park
4. Global Robotics Institute
5. Florida Manufacturing Extension Partnership

Airports

1. Orlando International Airport
2. Kissimmee Gateway Airport

Transit Stations

1. Orlando SunRail Stations
2. Kissimmee SunRail Station (opening 2017)



People + Place Partnerships

The central Florida regional ecosystem is based on interlocking networks of industries and academic institutions working together to advance the sensor and semi-conductor industry in the United States. Its foundations are:

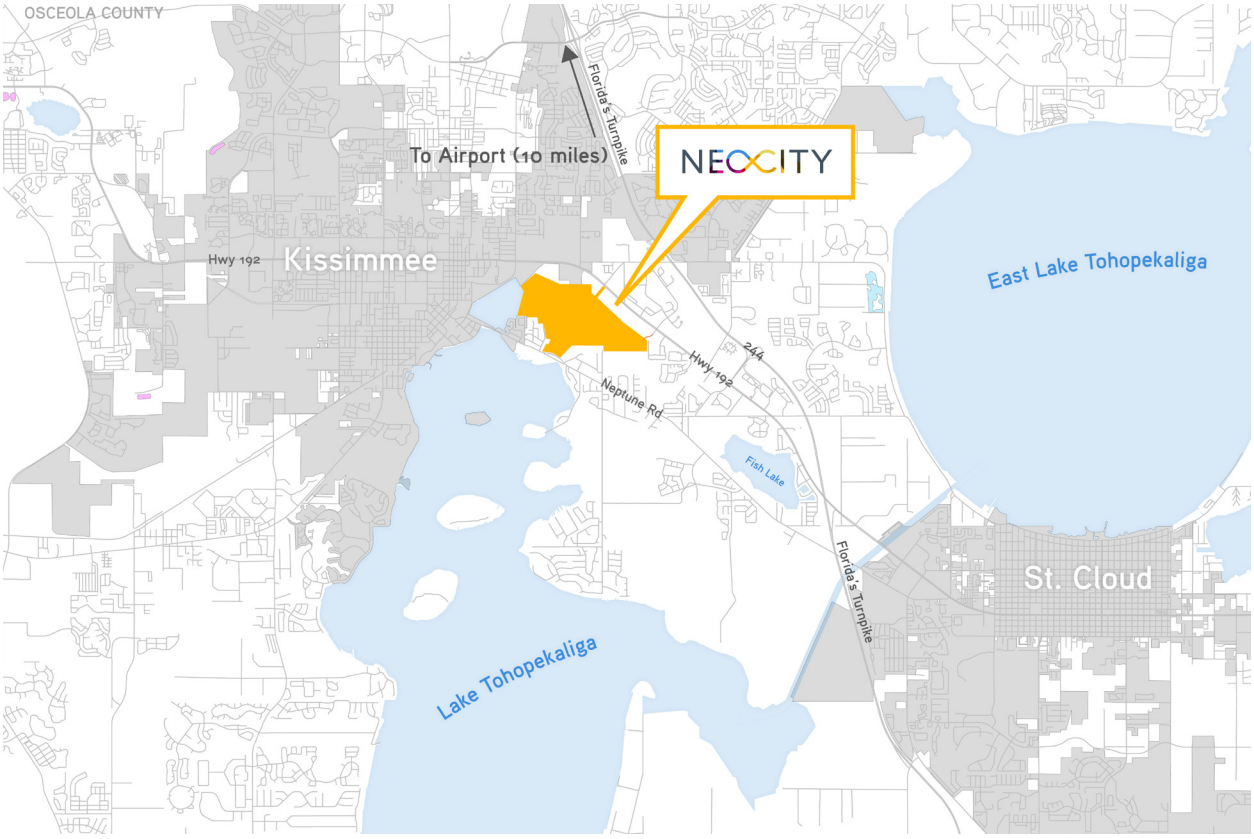
- UCF's advanced expertise in cutting edge sensor and solar energy;
- Lake Nona Medical City's growing cluster of life science professionals;
- Re-employ assets from Space Coast to re-energize the aerospace cluster;
- Maximize regional and state investment in SunRail by increasing ridership and connectivity;
- Repatriating advanced manufacturing firms back to the U.S. and Florida; and,
- Partnering with a thriving Defense industry.

Orlando/Kissimmee/ Sanford MSA population is expected to grow by more than 50% by 2040 and in the same period Osceola County's growth is projected at 119%

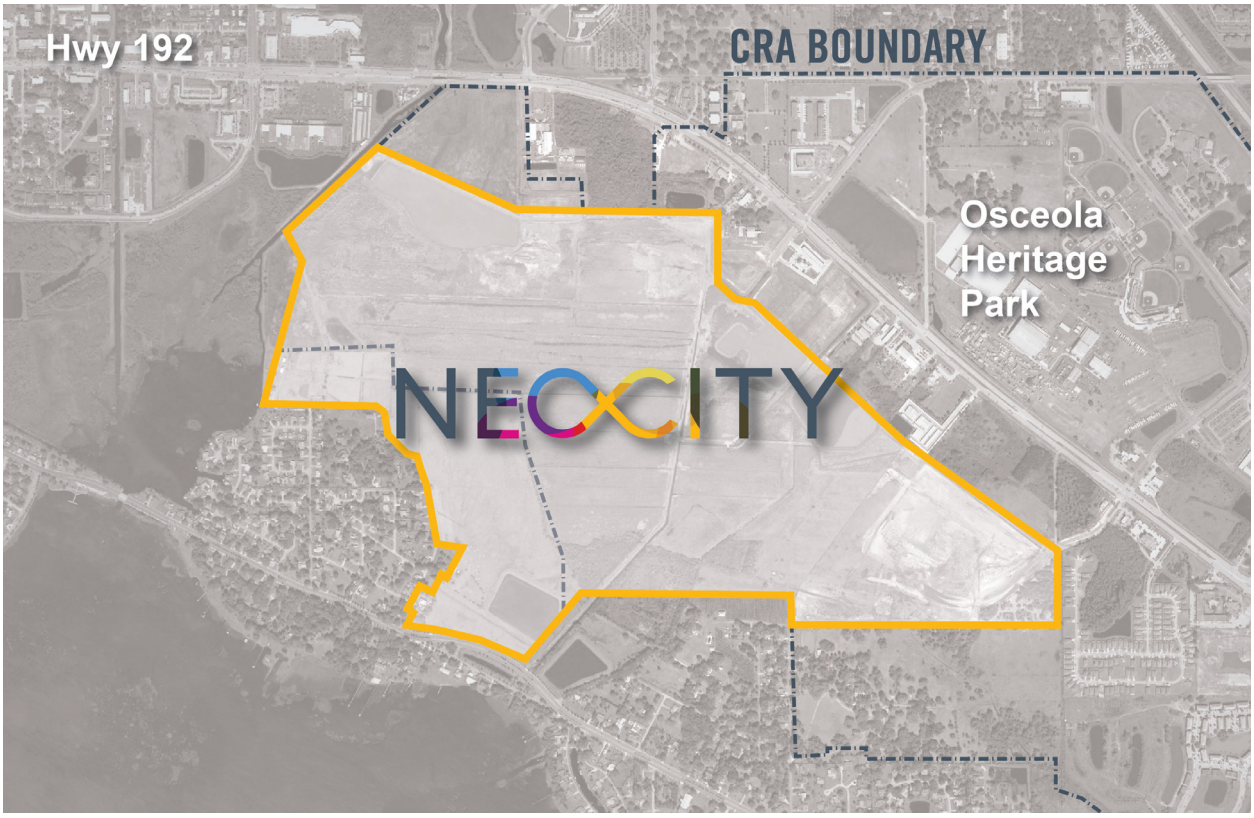
-Osceola County

Metropolitan Connectivity

NeoCity is fueling local jobs and catalyzing a new economic powerhouse, changing the landscape for Osceola County to provide a resilient long-term economic base for future generations. This opportunity is supported by a physical location that provides excellent access to an international airport, strong connections to the highway network, regional and commuter rail, and local mobility services.



The NeoCity site is located between Kissimmee and St. Could, a short drive from Orlando International Airport



The NeoCity site benefits from a location between downtown Kissimmee, Valencia College, and Osceola Heritage Park.

Local Assets

Diverse amenities surround the NeoCity site, including bucolic landscape features around Lake Toho, bars and restaurants in downtown Kissimmee, sports and event space at Osceola County Heritage Park, education and workforce training at Valencia College (headcount of 68,351 for 2015), and a multitude of developable land opportunities.

NeoCity falls within the Community Redevelopment Authority (CRA) area established by Osceola County, vesting the district with special planning controls to seek the highest quality of development within its boundary.

NeoCity has the right partnerships in place and is poised to transform the employment ecosystem of Osceola County and beyond.

02

NEOCITY

02

MASTER PLAN

02

MASTER PLAN

"Urban design is inherently collaborative and interdisciplinary, involving an integrated approach, and skills and expertise of a wide range of professionals and others."

—Matthew Carmona,

Public Places, Urban Spaces

Overview

The master plan is the physical manifestation of the vision for NeoCity as an economic hub and community resource, setting out an illustrated vision of the streets, blocks, parcels and spaces that will form NeoCity.

The framework for the site was developed to accommodate a wide variety of building types and uses without losing the core integrity of the urban grid and the framework intentions of the public spaces, views and connections to open spaces. The plan is undergirded by the integrated functions of water management, functional and active landscapes, urban farming, transit connections and hub, and cutting edge research and development, all within a walkable urban fabric.

The illustrated version of the Master Plan Framework presents the aspirations of a walkable, active urban form connecting office, research, retail, leisure and residential uses.

The Master Plan Framework captures a remarkable opportunity for NeoCity to create an exceptional new district within Osceola County. This district will provide the spring board for jobs creation and future adjacent development.

1. **Water Reclamation Pond /** Provides storm-water management and regional irrigation as part of a coordinated plan.
2. **Neighborhood Parks/** Provide diverse outdoor activities networked together by trails.
3. **Greenway/** Provides stormwater management and opportunities for interaction with the natural landscape.
4. **Central Plaza /** Provides a focal location within the entire district for community and corporate events.
5. **NeoCity Way /** The 'main street' of the district provides active street life through a linear park and complete street elements.
6. **Urban Farm /** provides a locally grown food source supporting farmers market and local restaurants.
7. **BRIDG Sensor Facility/** World class sensor research and development facility for both academic and commercial use.

NeoCity Illustrative Master Plan

URBAN DESIGN FRAMEWORK

The urban design framework supports the overall Master Plan by identifying key locations, views, gateways, and structural aspects of the plan which will require a greater degree of design attention in future development proposals.

Gateways

The concept plan establishes high profile gateway entrances off of Highway 192, creating connections between the existing and proposed communities. Development that supports walkable interactions will be created through the careful arrangement of blocks that form continuous street frontages. Increased activity will be concentrated at the heart of the site and transition as it approaches the edges, to create balance and compatibility with neighboring residential developments while incorporating a clear hierarchy of gateways and entrances into NeoCity.

Views

Streets within NeoCity will frame future views both within and out of the district, making the urban grid more than a functional network for movement, it communicates wayfinding and sense of place. Identifying these views forms the basis of response for landmark buildings and prominent facades.

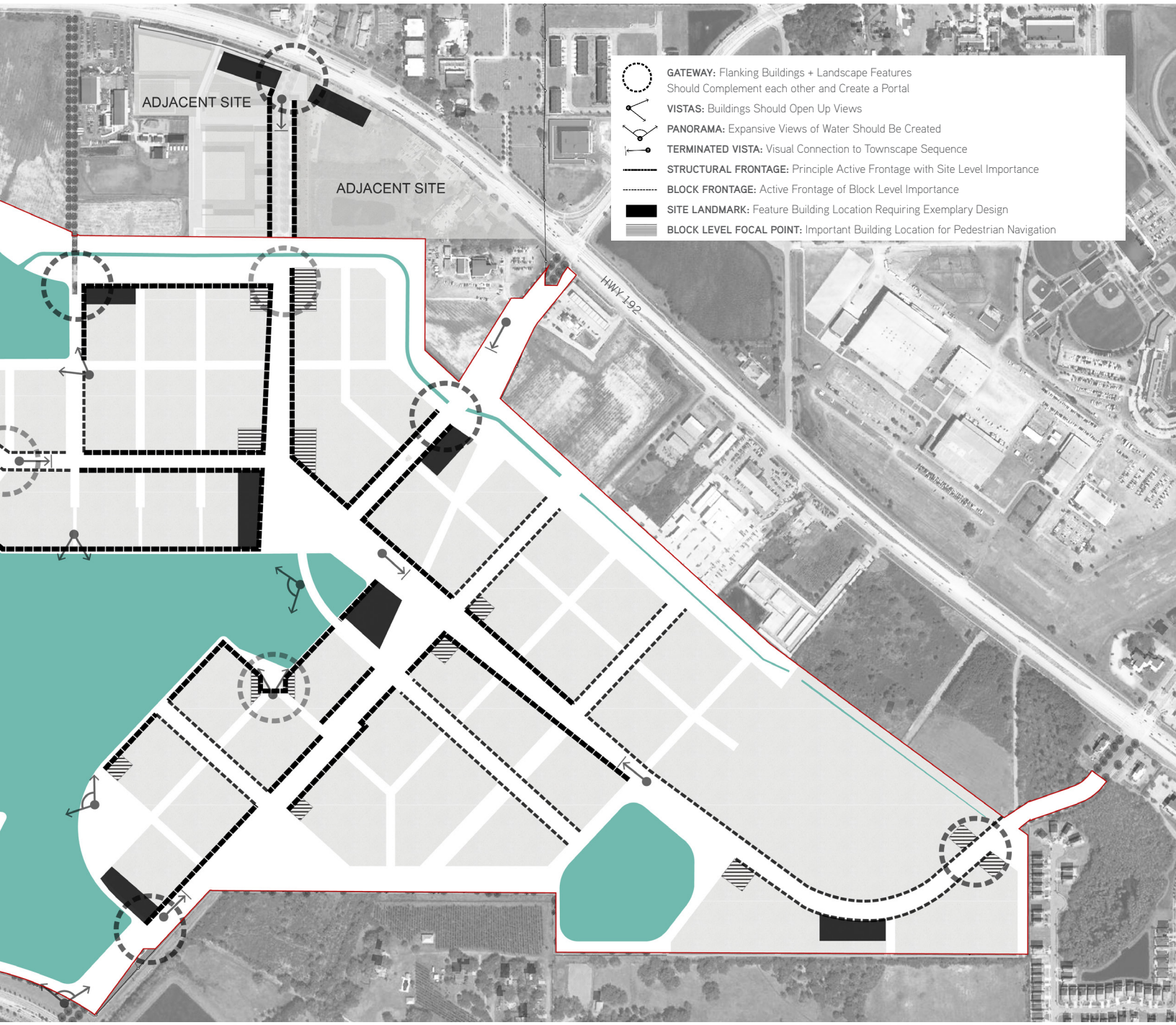
Landmark Buildings

The Master Plan uses a combination of urban design features to create an engaging townscape experience. That experience applies in subtly different ways to pedestrians, bicyclists, or drivers, but the underlying structure creates the opportunity for landmark buildings that provide a strong opportunity for image and identity for users of all transportation modes.

Block Frontage

Working with the street hierarchy, the block frontages identified in the Urban Design Framework establish those critical areas where buildings should positively connect to the sidewalk creating active ground floor uses that promote street life and interaction.

NeoCity Urban Design Framework


ADJACENT SITE
ADJACENT SITE
HWY 192
GATEWAY: Flanking Buildings + Landscape Features
Should Complement each other and Create a Portal
VISTAS: Buildings Should Open Up Views
PANORAMA: Expansive Views of Water Should Be Created
TERMINATED VISTA: Visual Connection to Townscape Sequence
STRUCTURAL FRONTAGE: Principle Active Frontage with Site Level Importance
BLOCK FRONTAGE: Active Frontage of Block Level Importance
SITE LANDMARK: Feature Building Location Requiring Exemplary Design
BLOCK LEVEL FOCAL POINT: Important Building Location for Pedestrian Navigation

PHASING OVERVIEW

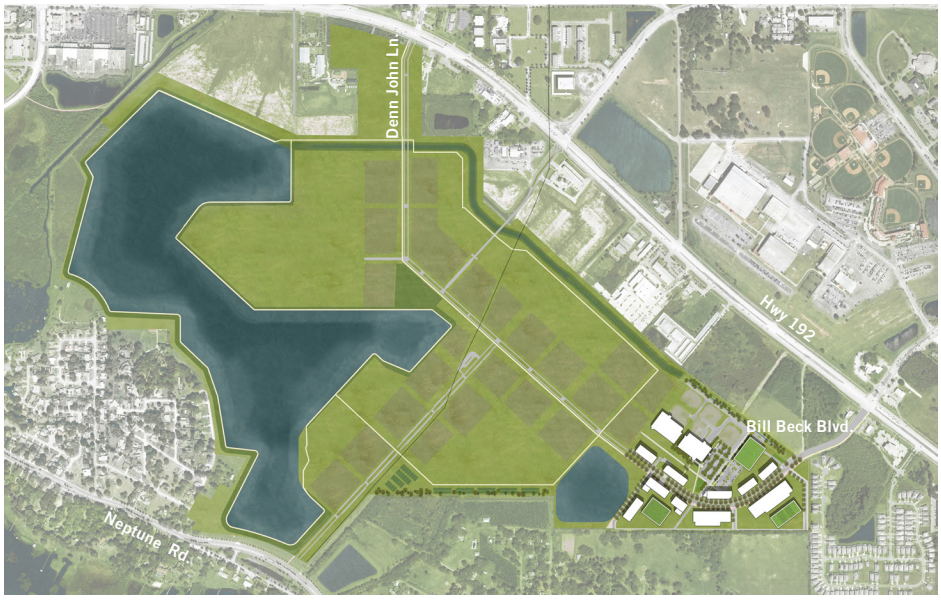
Year 1

The site has a complete and operational sensor fabrication building occupied by BRIDG and a multi-tenant office building. The entrance to the site is complete with landscape and character signage. The pond has been built in its full extent and the land on the rest of the site leveled using the fill from the pond. The urban farm area has been set out and trails and tracks connect around the pond and through the site.

Phase 1, Year 1

Year 10

One million square feet of development has been created, clustered in the eastern corner of the site to create synergies between tenants and efficiencies in land use. The central roads through the site connecting from Neptune Road, Denn John, and Bill Beck have been put in place and adjacent parcels are ready for future development.



Phase 2, Year 10

Phase 3, Year 25

Year 25

Five million square feet of development within NeoCity maintains the concentration and vitality of the central streets creating a walkable connection between facilities and an active streetscape. The central space is built out and activated through programming within and around the hub building. A mix of uses has emerged including research, incubator, residential and retail uses.

Phase 4, Year 50

Year 50

At 10 million square feet, the NeoCity development is complete. The completion of projects around the pond provide activity fronting onto the pond and the greenway. All initial street connections are in place and future connections to adjacent development sites may also be formed.

Beyond this growth it is anticipated that near-by and adjacent properties will provide an even longer term supply of land for research related development beyond the district, forming an innovation city.

DEVELOPMENT FRAMEWORK QUANTIFICATION

This simplified plan strips away the surface to show the underlying master plan Framework of streets, spaces, and landscape features that undergird the NeoCity Master Plan. While the development that comes forward will diverge from what is shown in the illustrations, these structural elements provide the most basic framework for the district. In essence this is the road map for a resilient new district and the integrity of these elements is critical to the long-term implementation of the master plan.

SITE AREA: 482 acres

DEVELOPABLE PARCELS: 180 acres

Water: 166 acres

Utilities: 6 acres

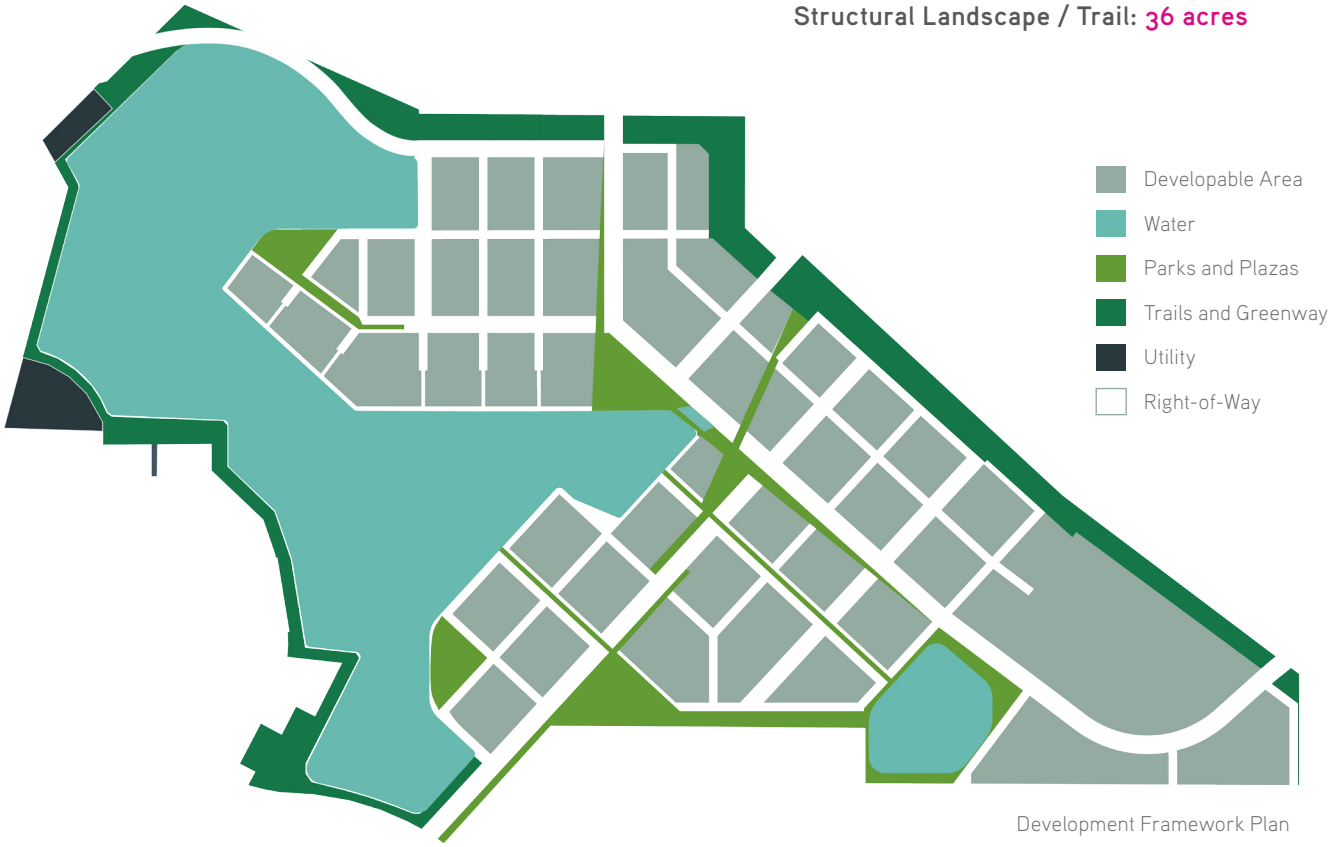
Boardwalk: 5 acres

Right of Way: 66 acres

Open Space: 15 acres

Urban Farm: 10 acres

Structural Landscape / Trail: 36 acres



Development Framework Plan

Central Plaza with feature bridge and hub pavilion in the center of the space. Events or conference center functions take place in the civic focused building (shown in the bottom right corner of the image), opening out onto the water, the pavilion and bridge. 4-8 story commercial office buildings with ground floor active uses form the backdrop to the space.

Good planning is not about predicting the future, it's about shaping it.

DESIGN PRINCIPLES:
FOUNDATIONS OF THE MASTER PLAN

The foundation of a robust long-term master plan is the creation of rational principles which lead the intent of the design from paper to implementation and construction. The design principles found in this section were developed early on in the process, and led the master planning design process in everything from early decision making to evaluation of the success of the Master Plan in relation to site metrics and resiliency.

Integration of Water

Gateways + Connections

Matrix of Uses

Block Density

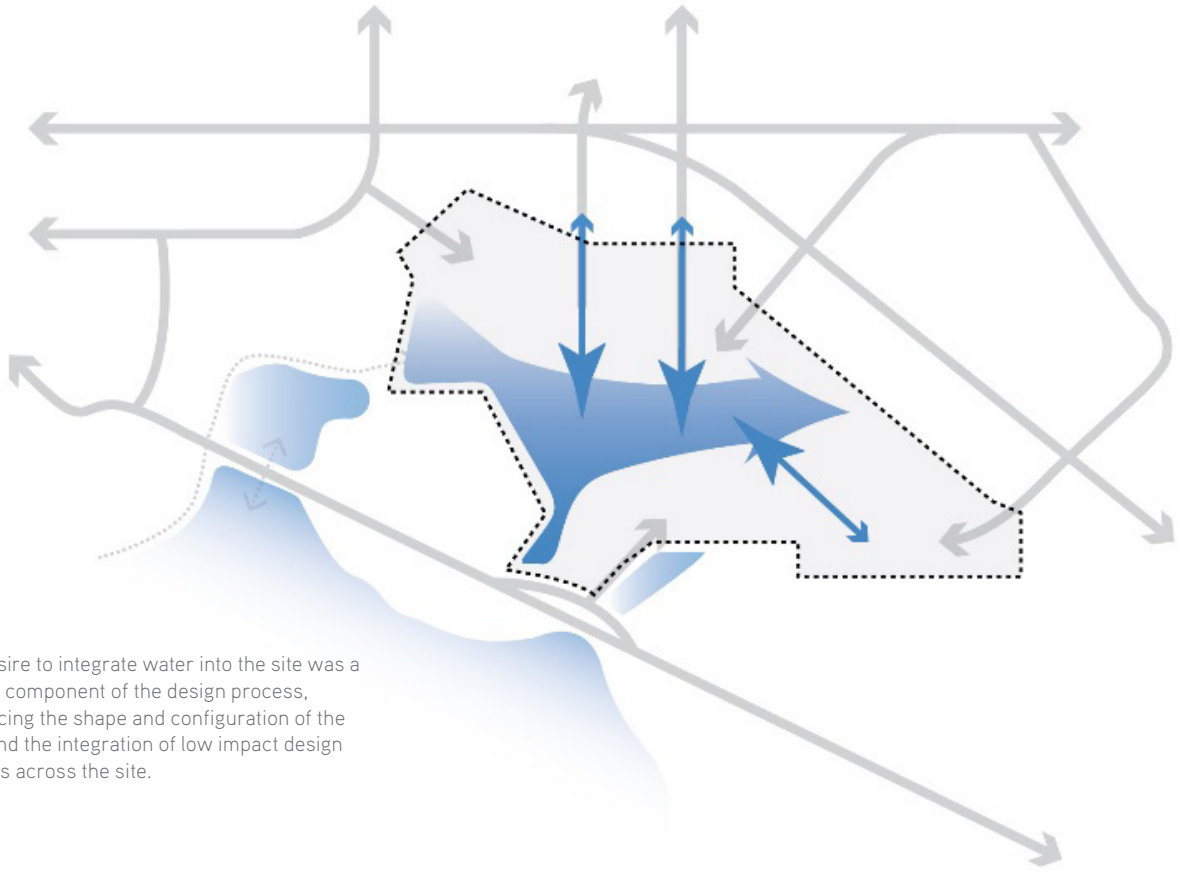
Activity Nodes

1. Integration of Water

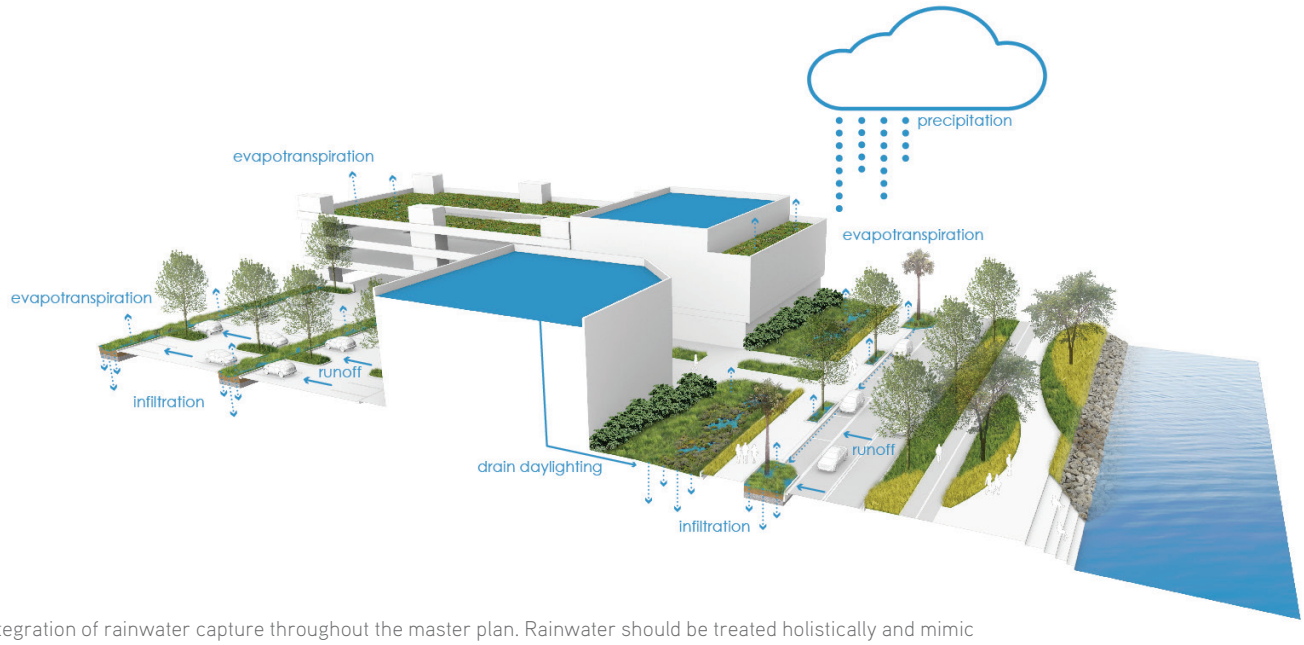
At the headwaters of the Everglades, NeoCity is in a strategically important location to be able to combine sustainable environmental strategies within a regional water system. This opportunity is realized in the creation of a large body of water on the site which can provide trails for recreation, create learning opportunities, support native wildlife and wetland plants, and be utilized as reclaimed water for irrigation for the region. This design principle seeks to ensure that not only does water perform functional requirements on the site, but that it is drawn into the site through a wide variety of low impact design features, expanding the areas of the site which may benefit from direct relationship to the water.

The multiple benefits of this design principle include:

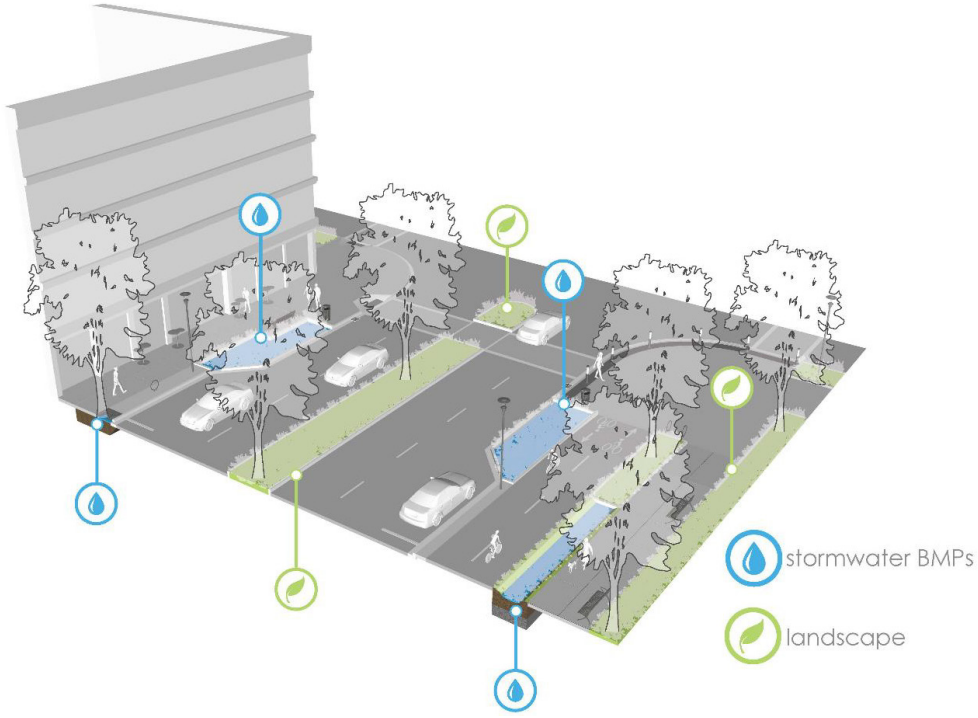
- Cleaning surface water runoff before it reaches the pond to improve the water quality and the appearance of the pond as a site amenity;
- Creating a district which celebrates its environmental and ecological context;
- Allowing all future development to contribute to effectively managing stormwater events; and,
- Providing learning and educational opportunities.



The desire to integrate water into the site was a leading component of the design process, influencing the shape and configuration of the pond and the integration of low impact design features across the site.



Integration of rainwater capture throughout the master plan. Rainwater should be treated holistically and mimic the natural water cycle through the design of green roofs, permeable surfaces, biodetention, and drain daylighting and infiltration, before reaching the reclamation pond and eventually Lake Toho.



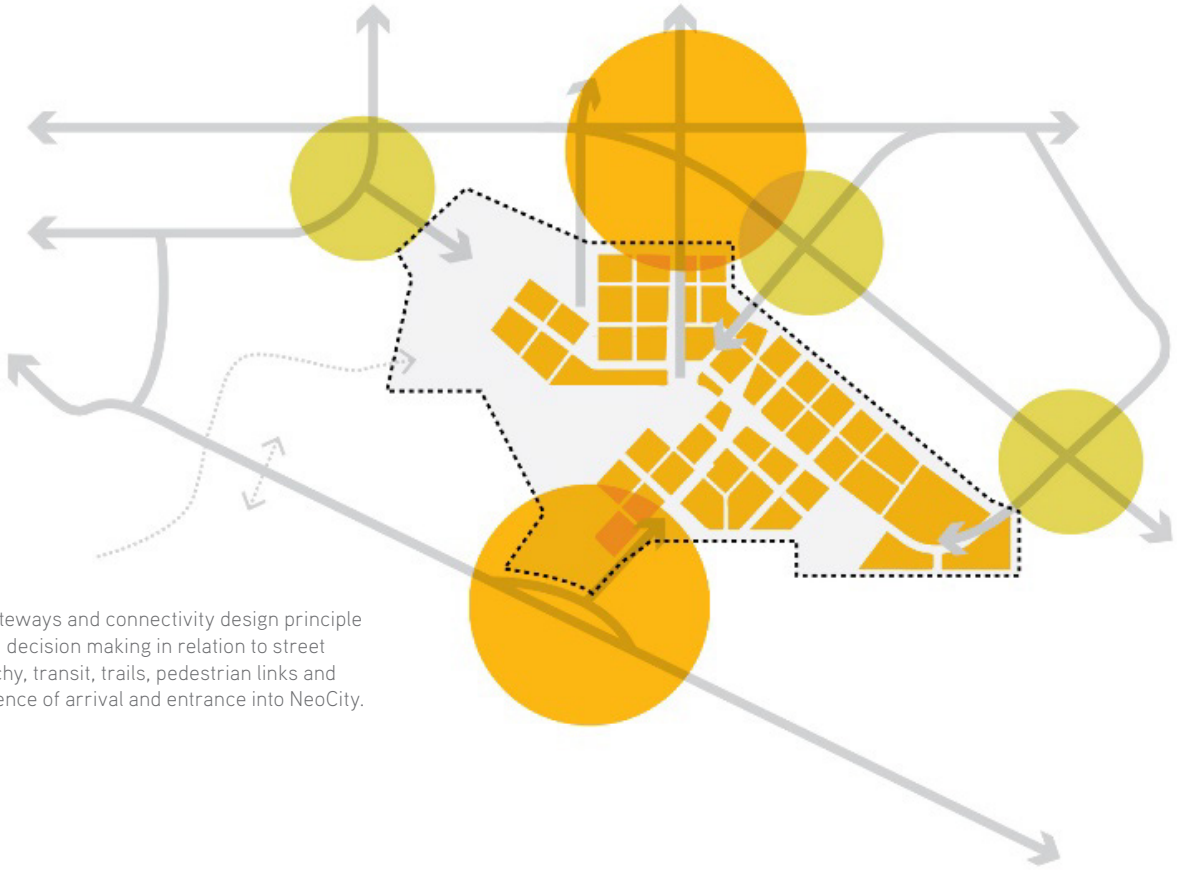
Integration of stormwater within street infrastructure: Impervious cover created within the district is off-set by Stormwater Best Management Practices such as pervious medians, additional tree crown coverage, rainwater catchment gardens and biodetention swales.

2. Gateways + Connectivity

From the outset of this project, opportunities to connect and integrate NeoCity into the surrounding development have been identified at every scale, from new passenger rail and toll roads, to neighborhood pedestrian and bike trail networks. Critical to this connectivity are the points at which the site meets surrounding development: its gateways. This design principle seeks to identify a hierarchy of entrances and gateways to the site, imbuing each with an appropriate and distinctive character. This will create a sense of arrival for future visitors, employees, and residents coming to NeoCity whether driving from the airport, walking from downtown, or riding on a regional bike trail.

This design principle has led to decision making in relation to:

- Long-term street connectivity
- Street hierarchy
- Gateways
- Transit movement and hub
- Trails network
- Walking connectivity and catchments



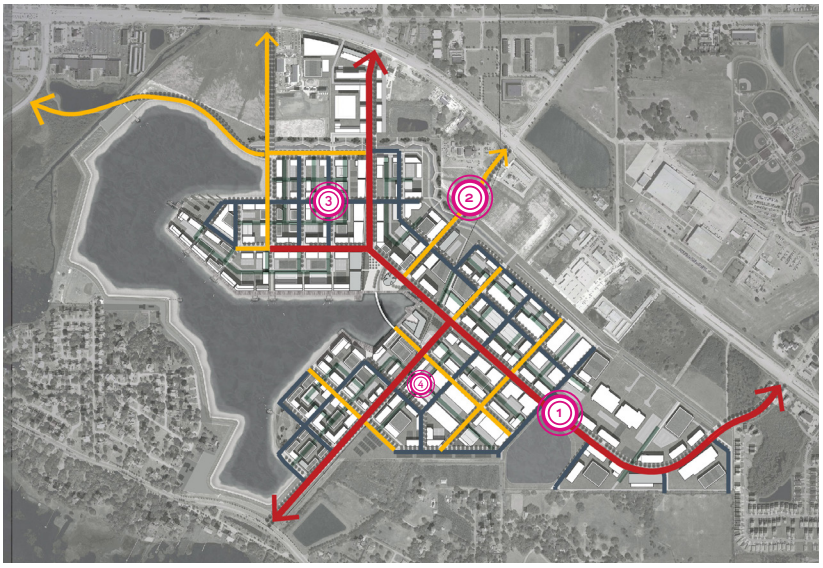
The gateways and connectivity design principle has led decision making in relation to street hierarchy, transit, trails, pedestrian links and experience of arrival and entrance into NeoCity.

Street Hierarchy

This design principle envisions pedestrian movement and bicycle movement as the primary considerations in the street design, but allows for transit access, ride share, electric car plug-in points, and consideration of new forms of transit such as autonomous vehicles in the future.

Detailed street design criteria can be found in Section 04: Design Guidelines: Site Implementation.

Street Hierarchy Diagram

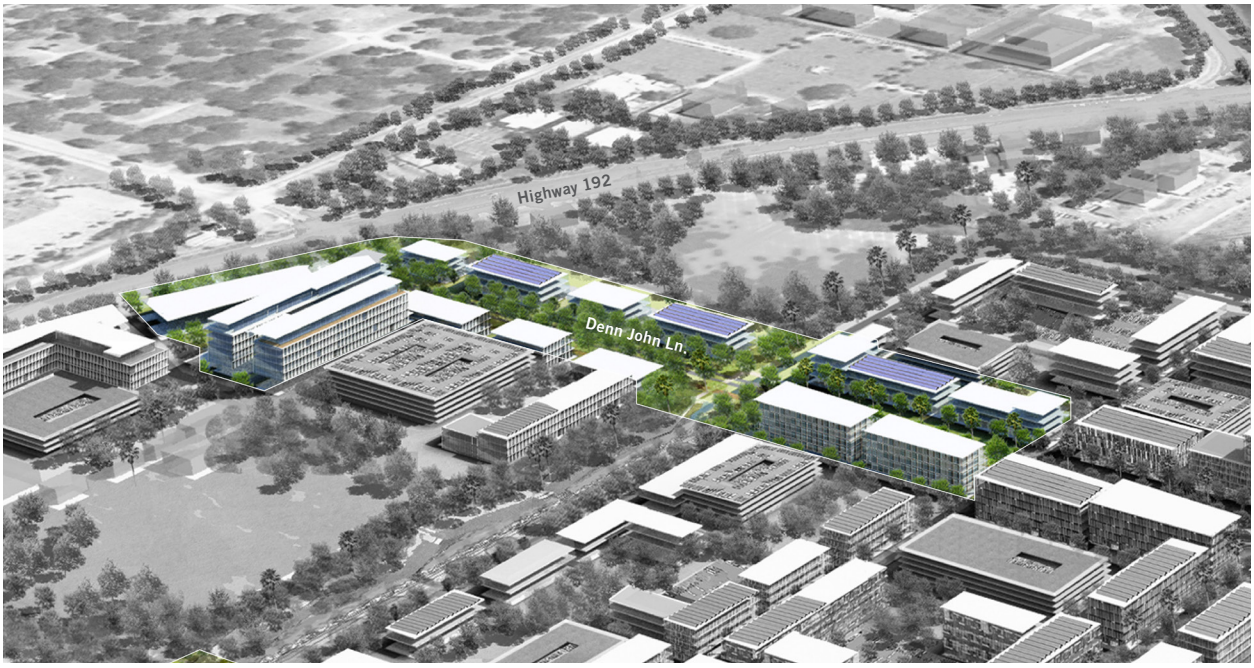


Long-term Street Connectivity

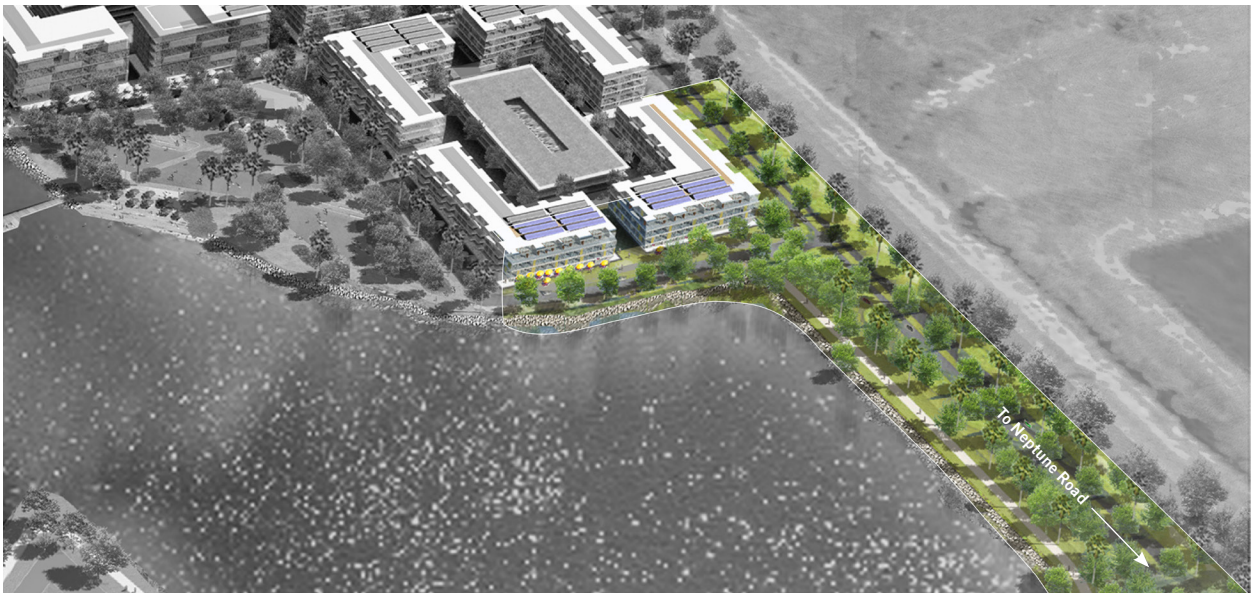
The Development Framework Plan provides a minimum of 5 connections into the site with the potential for more to be added in the future. For the initial Phase 1 work a correlation was drawn between the Phase 2, 10 year time-line and a need to have at least two access points open into the site to allow for greater choice and improved accessibility.

1. **PRIMARY STREETS /** Formal landscape infrastructure: 110' right of way, sufficient to accommodate at a minimum, 6-8' sidewalks, 5' bike lanes, and transit stops.
2. **LINEAR PARK STREETS /** Versatile streets which have a 50' movement cross section but an additional 50' for cafe seating, linear park features and stormwater integration.
3. **COLLABORATIVE STREETS /** Narrower pedestrian and bicycle priority streets with swales and minimal markings: 50' right of way allowing two-way traffic and shared lanes.
4. **SERVICE ALLEY /** At this Framework Concept scale there is an assumption that servicing will take place for some of the blocks through the use of alleys forming a sub-grid to the street structure also accessible by pedestrians and cyclists.

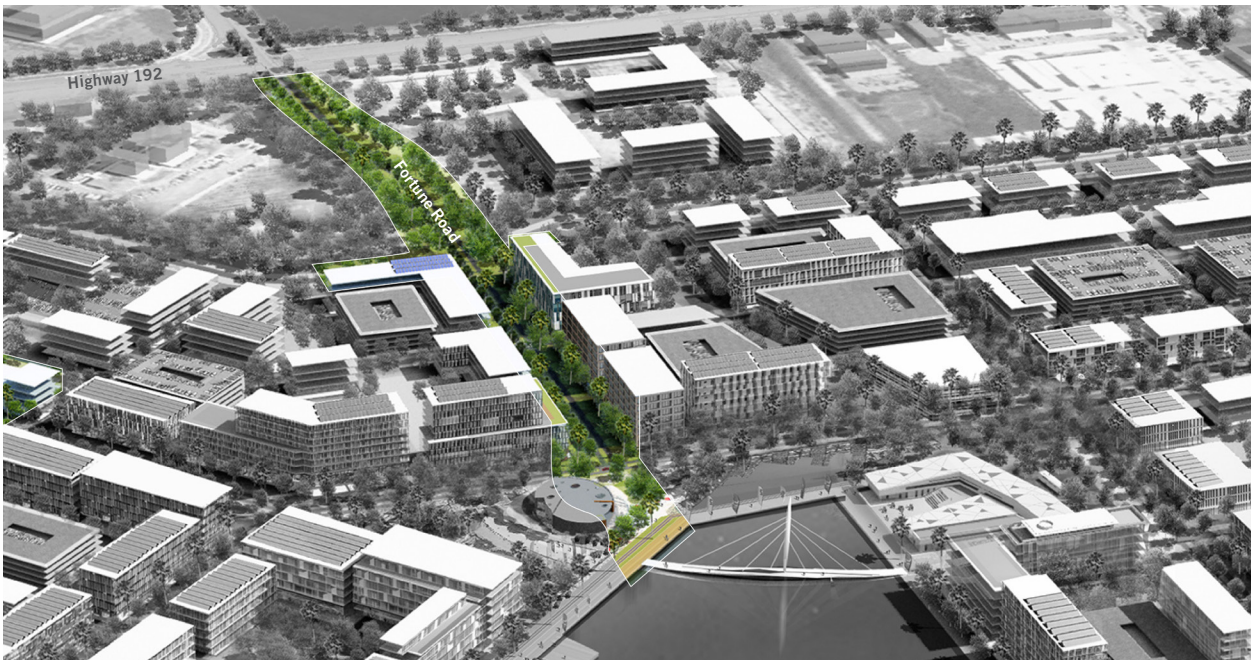
Main Gateways



DENN JOHN / The Denn John Lane gateway represents the greatest opportunity for achieving a high profile site entrance. It is in a well situated position between Valencia College, downtown Kissimmee, and the site. Development on private land outside NeoCity would be required to facilitate this potential. The master plan envisions commercial development at this gateway to embody the same urban principles as NeoCity itself.

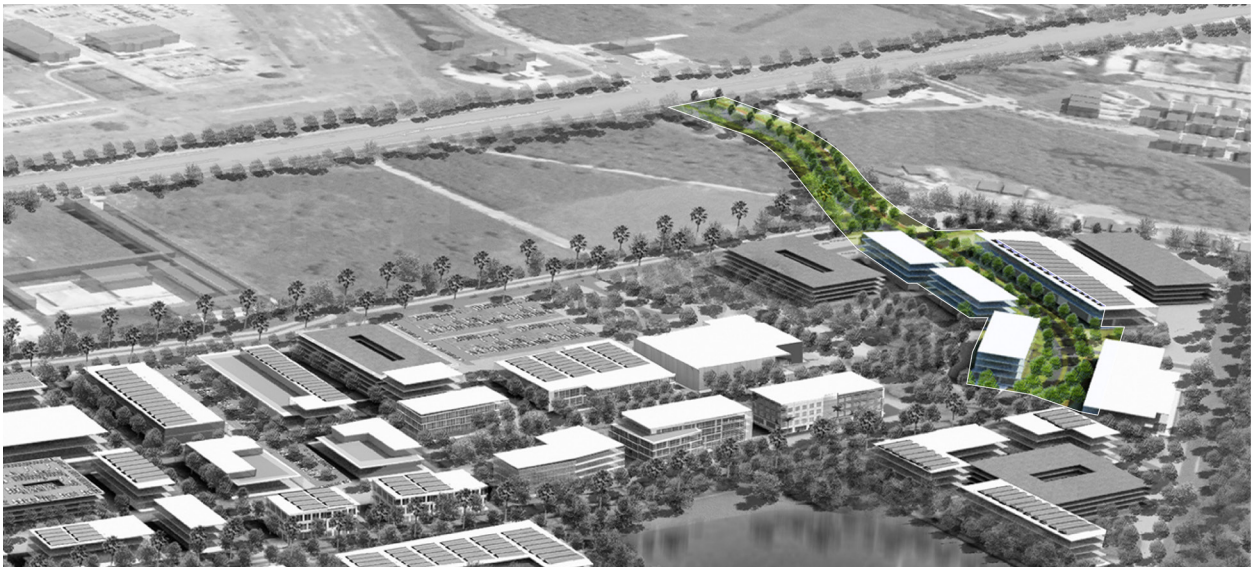


NEPTUNE / To the south, the gateway to Neptune Road is treated sensitively as a local community access into the site from predominantly residential uses. This entrance may have a mix of multi-family residential scale (3-4 stories) buildings to denote this character.



FORTUNE / This entrance gateway provides a second direct link to the core of the development. It marks a link between the Greenway and the Central Plaza which may transform into a prominent site entrance in the medium to long term.

OAK STREET / The Point of arrival from Oak Street will need to rise up to meet the level of the berm around the reclamation pond. This connection will be the longest to establish given the complexity of crossing Mill Slough. This entrance into the site captures significant opportunity for local traffic, walking, and biking to downtown Kissimmee and the Sun Rail station. This gateway offers opportunities to capture the scenic qualities of the pond, as well as direct access to a boardwalk which leads all the way to the public heart of the site. In addition, land parcels to the north of this gateway allow the potential for redevelopment and reorientation of existing retail to face this new connection.



BILL BECK / The Bill Beck entrance is envisioned by the master plan as an entrance with a greater focus on employees and visitors to specific facilities. The Urban Design Framework creates an appropriate sense of arrival into NeoCity. The existing entrance is flanked by two fast food chains, making it even more critical and challenging for the County to extend the NeoCity brand at this location. However, pad sites adjacent to Highway 192 should be considered for long-term relocation to allow potential office space expansion towards the Highway 192 frontage.

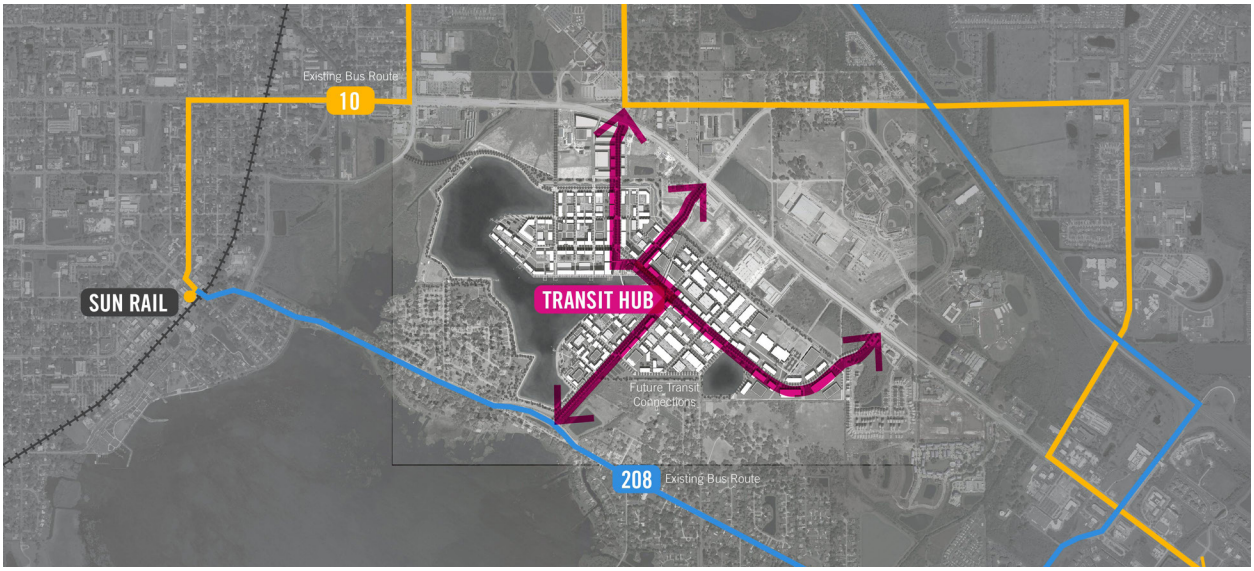
In addition to these gateways, additional future access connections have been identified at several additional locations:

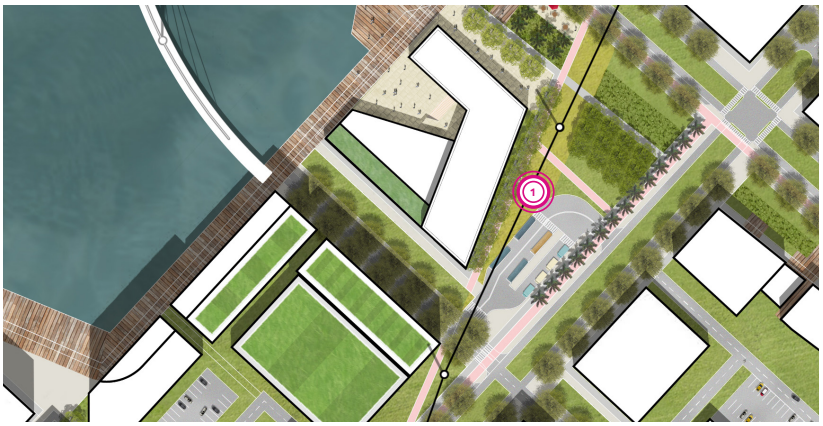
- Pedestrian/bike trail connections on a new diversion wall across Oak Street Preserve;
- Improved pedestrian connections to Valencia College and Osceola Heritage Park, potentially with the introduction of a pedestrian bridge; and,
- Pedestrian and trail connections south to residential neighborhoods at Will Barber Road or Shawnda Lane.

In addition to these links identified, the urban grid created by the NeoCity Development Framework Plan allows for many additional future connections to Highway 192 and the surrounding street network should the opportunity arise.

Public Transit

The Master Plan Framework creates a myriad of potential connections for multi-modal transportation, connectivity, (internal and external) access, mobility, and improved walkability to downtown Kissimmee, adjacent neighborhoods, and open space network. Principal connections will be:





TRANSIT HUB / Provides a central location for interchange of link buses, shuttles, future autonomous coaches, ride share pick-up/drop off, cycle and walking wayfinding.

- FastLink bus service routed through NeoCity with at least two stops on the Primary/Main Street.
- A shuttle loop connecting the Sun Rail stop to Valencia College to be routed through the site entering at Neptune Drive and exiting at Denn John Lane.
- Centrally located transportation and mobility resource center.

In order to fully maximize the land use benefits of the provided mobility connections, the NeoCity Master Plan provides a basis for implementing the following transportation demand management programs:

- Significant investment in bicycle and pedestrian facilities;
- District bike sharing program;
- A “park once” layout of surface and structured parking options;
- A managed commercial and residential Parking and Mobility District;
- Unbundled parking costs from lease and rental rates;
- Incentivizing parking cash out programs for businesses; and,
- Corporate universal transit pass programs.

Trails Network

The master plan thinks beyond vehicular gateways into the site. It highlights how trails, bike-ways, and pedestrian paths can bring people into the site for a unique experience of reconnecting people to local ecology, region, and place.

The veloway connects through the site both east-west and north-south to provide convenient bicycle access and a striking feature of the street scene which promotes safe, accessible cycling within NeoCity. This veloway will provide the central component and focus of cycle activity within NeoCity but will link to and create access to more traditional cycle lanes and off-road tracks at Will Barber and Shawnda Lane and to the Neptune Road off-street path.

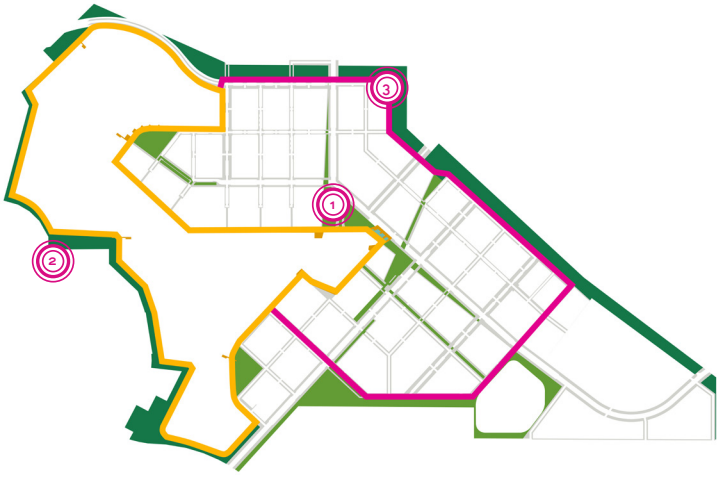
A shared bicycle and pedestrian trail will be provided around the entire perimeter of the 142 acre pond (circa 5.2 km in length) providing a significant recreational amenity. Part of this trail will be in the form of a boardwalk with points for access to pontoon decks allowing interaction with the water.

Existing and Proposed trail connections

VELOWAY / Dedicated two-way cycle route that marks a change in prominence of cycling in Osceola County and connects the Transit Hub to all parts of the district (Example Bike Trail: Cultural Trail, Indianapolis)

CYCLE TRAILS / combined with running trails, the pond and greenway will be accessible by bicycle for leisurely riding.

OFF-STREET TRAILS/ The NeoCity bike trails connect into a system of either existing or proposed off-street bike-way connections.



Trail loops with opportunity for programmed community running events and fitness training. Opportunity to embed sensor technology along trail route to enhance user experience

OPEN SPACE / Open spaces are connected by the trail network allowing a multitude of alternative routes through linear parks and open spaces.

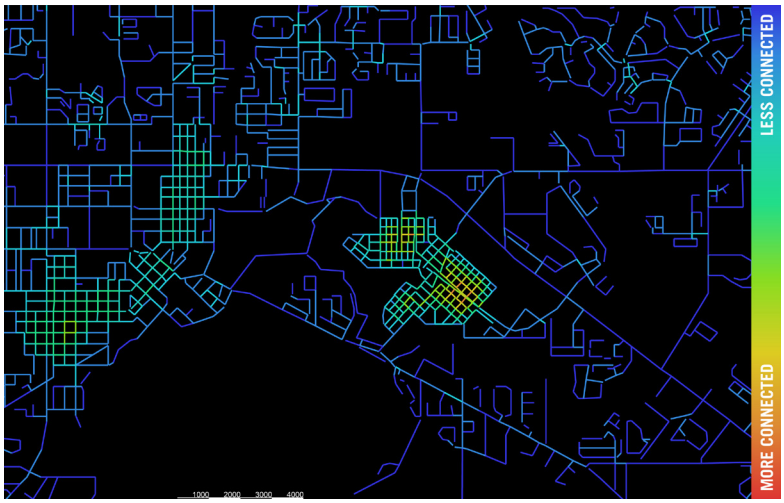
POND LOOP TRAIL / intentionally planned at 5.2 km to allow an ideal circuit for running events. Locations for wildlife and nature viewing points with interpretive signage are planned along the route.

GREENWAY TRAIL / Looping through the wider district this greenway trail allows opportunity to pass in front of active uses and directly connect businesses to the trail network.

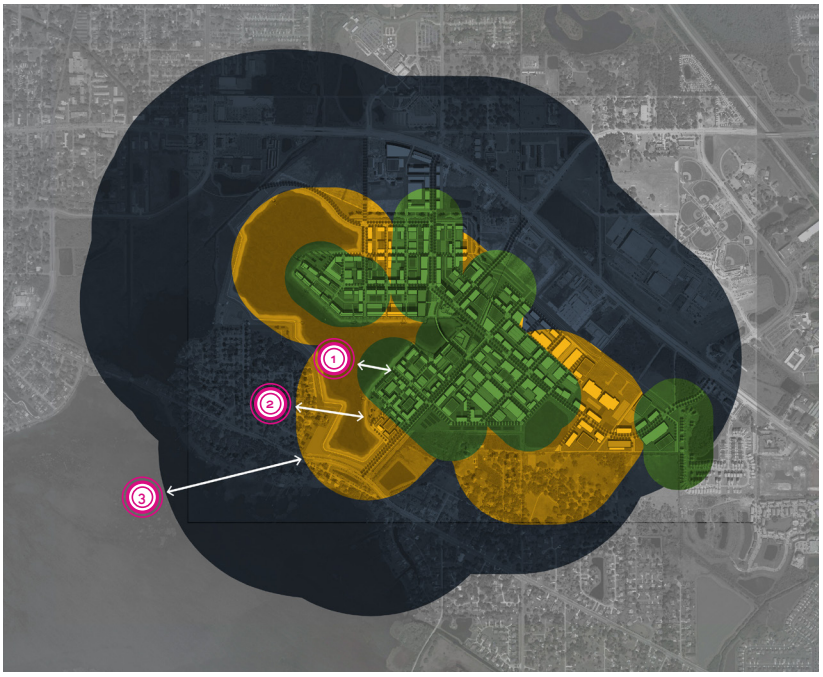
Walking Connectivity + Catchments

The Framework Development Plan establishes the potential for a highly permeable block structure of between 350' to 400' blocks. Blocks of this length create a high number of intersections per square mile, which is proven to support walking.

In addition, consideration has been given to primary streets and nodes aligning with a quarter mile radius catchment, which is a comfortable 5 minute walk.



Space syntax model demonstrating connectivity of pedestrian accessible routes within NeoCity Master Plan. Yellow and orange links identify greater connectivity for pedestrians within the street and alley network created (Space Syntax, Depth Map, UCL)



Open space catchment diagram showing access to a range of open space types. Catchments are drawn to different types of spaces, moving from local- to neighborhood- to district-level based on how far a person may be likely to travel to use the space. Block-level spaces like pocket parks have the smallest catchments, while district-level spaces like the trails network have the largest catchments.

1 **1/8 MILE CATCHMENT /** linear parks and block level spaces have been carefully placed to ensure that the majority of the NeoCity District is within a very short 1/8 mile walking distance to an open space.

2 **1/4 MILE CATCHMENT/** Neighborhood scale open spaces which provide more facilities such as pavilions and grills for small scale events are an easy 1/4 mile walk from the majority of the district.

3 **1/2 MILE CATCHMENT /** the trails network is within a 1/2-mile walking or biking catchment from areas beyond the NeoCity district providing easily accessible facilities to the wider community, the Osceola Heritage Park, and surrounding potential future development sites.

3. Matrix of Uses

Determining the future potential of a former agriculture site in an environment of competing development interests is a process which requires careful management, particularly at the outset of master plan implementation where investment interest may outstrip available land.

This design principle establishes a spectrum or matrix of appropriate uses across the site ranging from publicly active (a busy cafe overlooking the water) to private and secure (a high tech research facility with expensive equipment). The western and central area of the district is identified for highly public and active spaces with a gradual gradient transitioning to more secure and sensitive uses at the eastern end of the district.

This design principle has led decision making in relation to evaluating block structure to accommodate a variety of development types, and location of greater concentration of connectivity through the street grid to support more active uses.

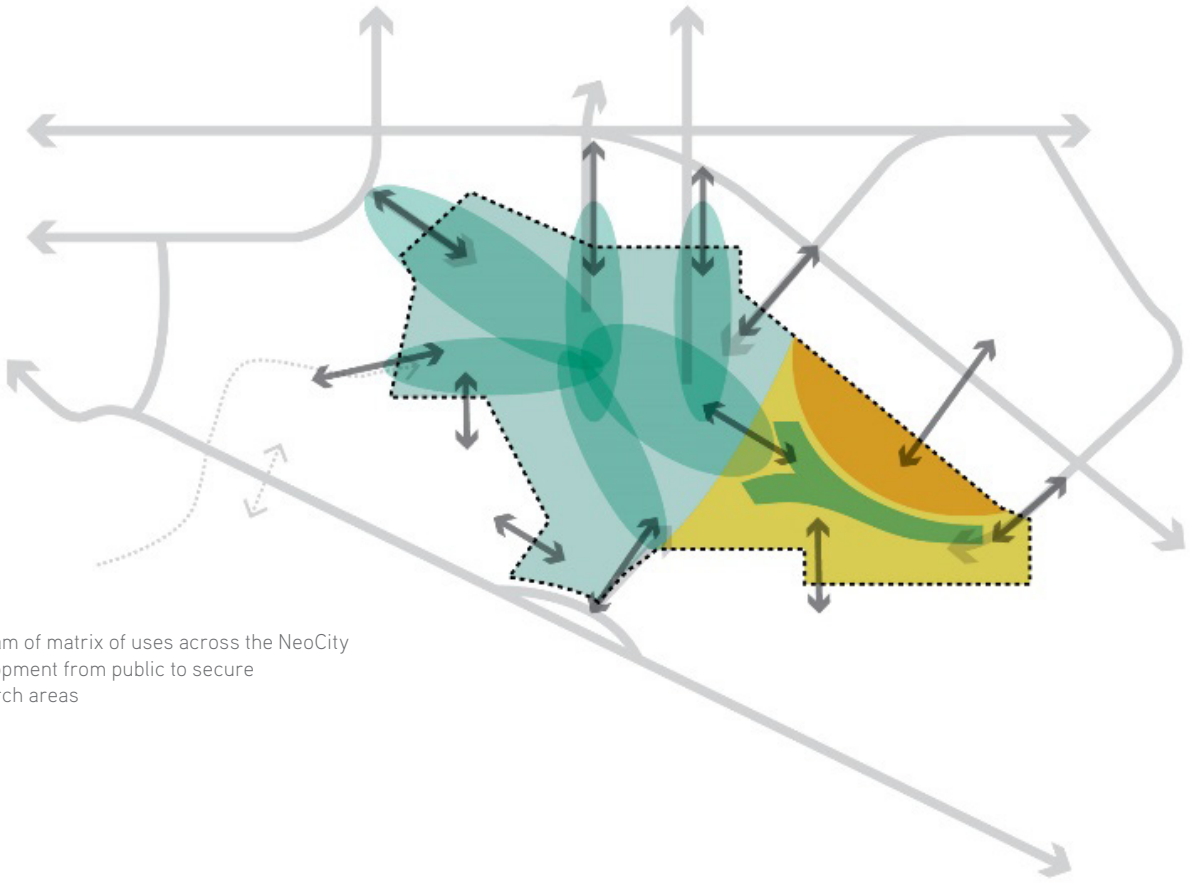


Diagram of matrix of uses across the NeoCity development from public to secure research areas

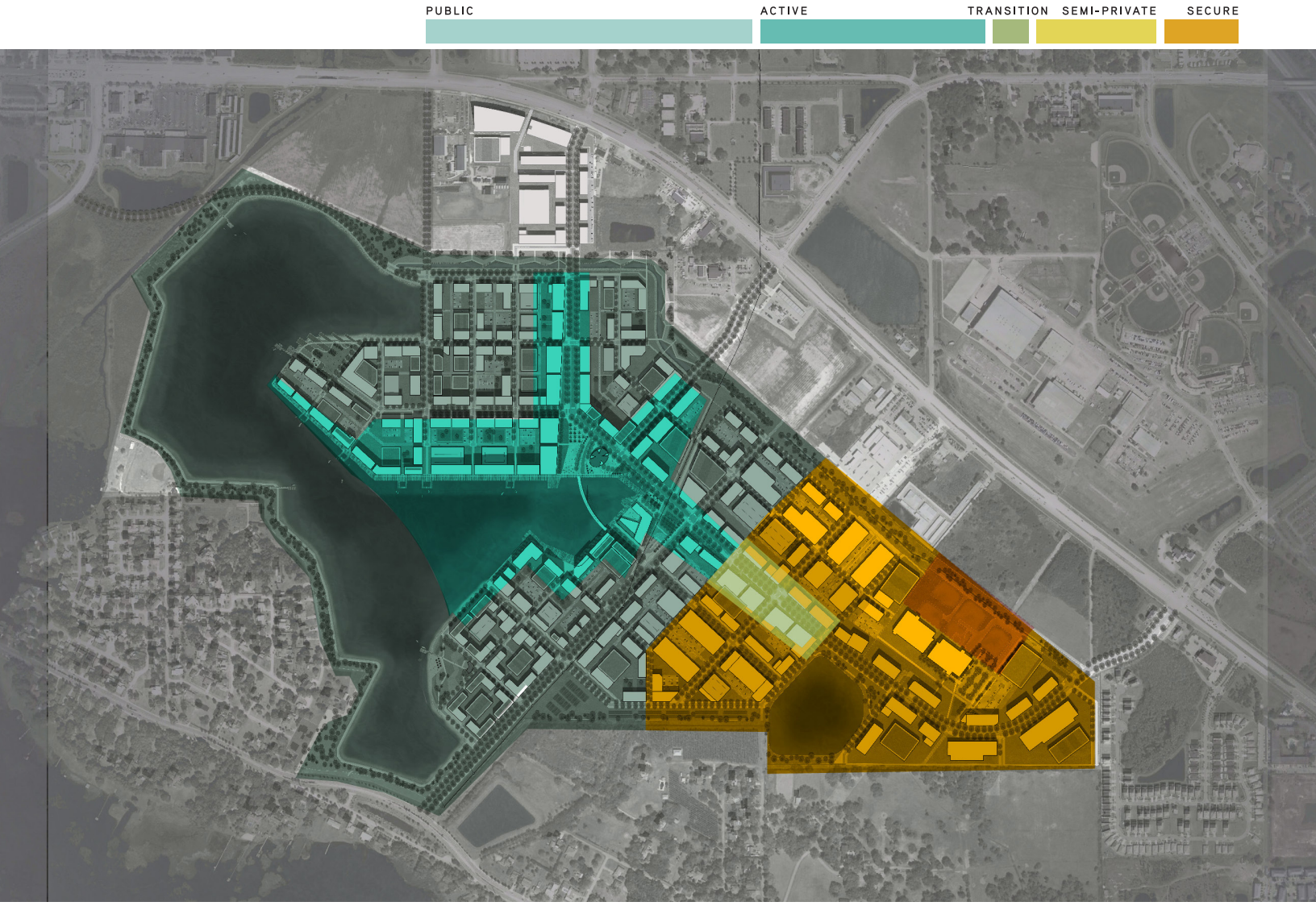


Diagram of use activity matrix over the NeoCity Master Plan

The focal hub generates activity within the epicenter of the site. This pavilion style building fulfills an important role in the NeoCity project. It was identified by multiple stakeholders that there is an ongoing need for a space to exhibit ideas and to act as an initial touchpoint where visitors begin their exploration of the district. The focal hub meets this need by providing a programmable space for events and meet-ups.

FOCAL HUB PAVILION / Centrally located meeting and mixing point for the whole district.

Active ground floor uses support the vibrant street locations within the site. These active uses should initially be focused on the areas of the site that will be the most public, and therefore naturally correspond to the areas around the pond and the central plaza, or here as shown adjacent to the Neptune Neighborhood Park.

ACTIVE GROUND FLOOR USES / Cafes, restaurants, and shops will front open space and primary streets with a focus on prominent corner locations supporting good visibility.

Research and more private uses enclosed within blocks towards the east side of NeoCity

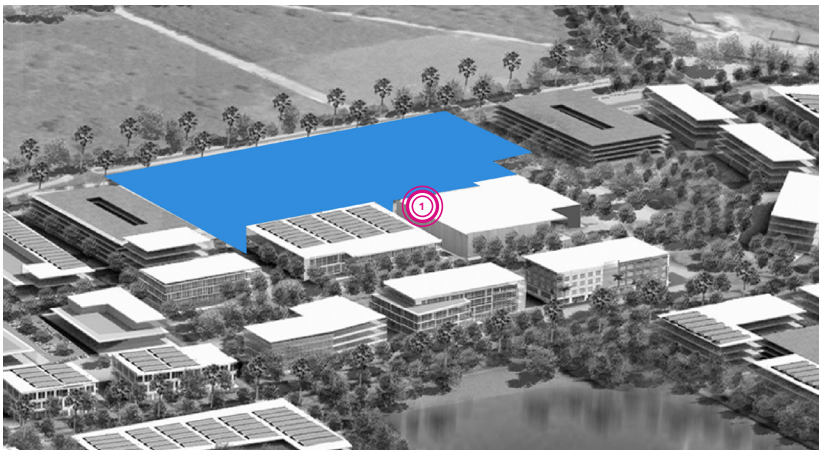
RESEARCH AND PILOTING /
Flexible blocks allow for a variety of development types to meet the predicted demand for flexible large format space.

START-UP DEVELOPMENT /
Closer to the core of the site developments may introduce shared office spaces and co-working facilities for start up companies and entrepreneurial businesses.

The Development Framework Plan allows for areas of the site to accommodate a gradation of security needs. In general, higher security needs are directed to the south east portion of the site. In addition to this, there is a presumption in the master plan that security will be approached in the following hierarchy:

Building-level security will be the principal means of security, after which:

- Plot level security will be allowed where it integrates positively with the public realm or is not visible from publicly accessible locations;
- Block level security will not be permitted without a comprehensive landscape and phased development plan demonstrating how the Design Guidelines for NeoCity are upheld; and,
- Secure zones may be established to the center of the block with building placement and landscape features used to provide necessary security in preference to perimeter fencing.



SECURE LOADING & STORAGE /
Secure loading and servicing facilities associated with the sensor fabrication facilities to the east side of the site.

4. Activity Nodes

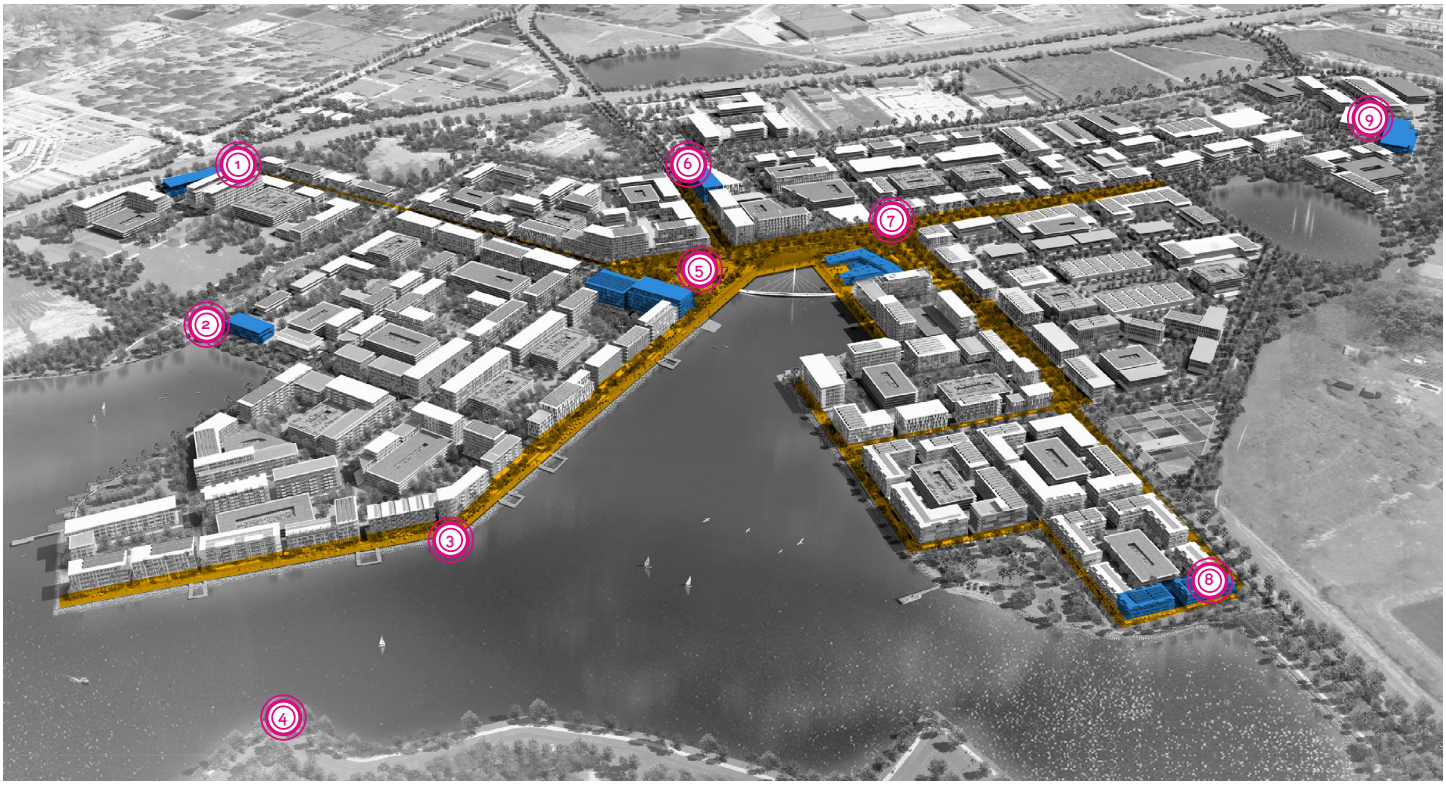
Collaboration, integration, and the formation of accidental interaction are becoming well-recognized as key components in creating a vibrant culture within innovation and technology focused developments. The Master Plan recognizes that this 'bump space' doesn't occur accidentally and that careful positioning of active uses, choreography of streets, desire lines, and the size and shape of open space all have their part to play.

At a high level, this design principle establishes the notion of nodes of activity which will develop over time within the district. In the early phases, it will be important to identify collaboration space to serve the first and second building. Gradually, as activity increases within the district, the creation of these spaces will become easier to plan and implement.

In the medium to long term, the center of the site will begin to act as a focus for collaboration and will become a hub for the high profile activities of NeoCity. This network of active nodes will, over time, expand between nodes and create more continuous active frontages along streets supporting high levels of pedestrian and bicycle activity.

This design principle has led decision making in relation to location of open spaces, spacing of primary streets and key intersections, building frontage and set-back concepts.

Aerial view identifying urban design framework features and focus of active space within NeoCity



1 **DENN JOHN GATEWAY /** Outside of the County owned land, this gateway provides the opportunity for complementary commercial development to support the NeoCity district.

2 **OAK STREET GATEWAY /** In the long term a west connection to Oak Street should be met with an active use welcoming cyclists and pedestrians approaching from the trail.

3 **PUBLIC BOARDWALK /** The entire length of the board walk has the potential to support commercial active ground floor uses from retail to cafés and restaurants.

4 **SCENIC VIEWPOINT /** On a smaller, more remote scale, viewpoints on the trail create spaces to pause and provides locations for aid stations to be set up during sporting events using the trail.

5 **ACTIVE PUBLIC PLAZA /** This space is envisioned as the most highly public area of the site, surrounded by active uses.

6 **FORTUNE GATEWAY /** Set back from the Highway 192 frontage, a gateway building in this location provides the opportunity to activate both the greenway and the approach to the central plaza.

7 **NEOCITY WAY /** the 'Main Street' of NeoCity has a multitude of opportunities to enliven street life, from its landmark buildings to its subtly widening linear park that allows for ample cafe seating.

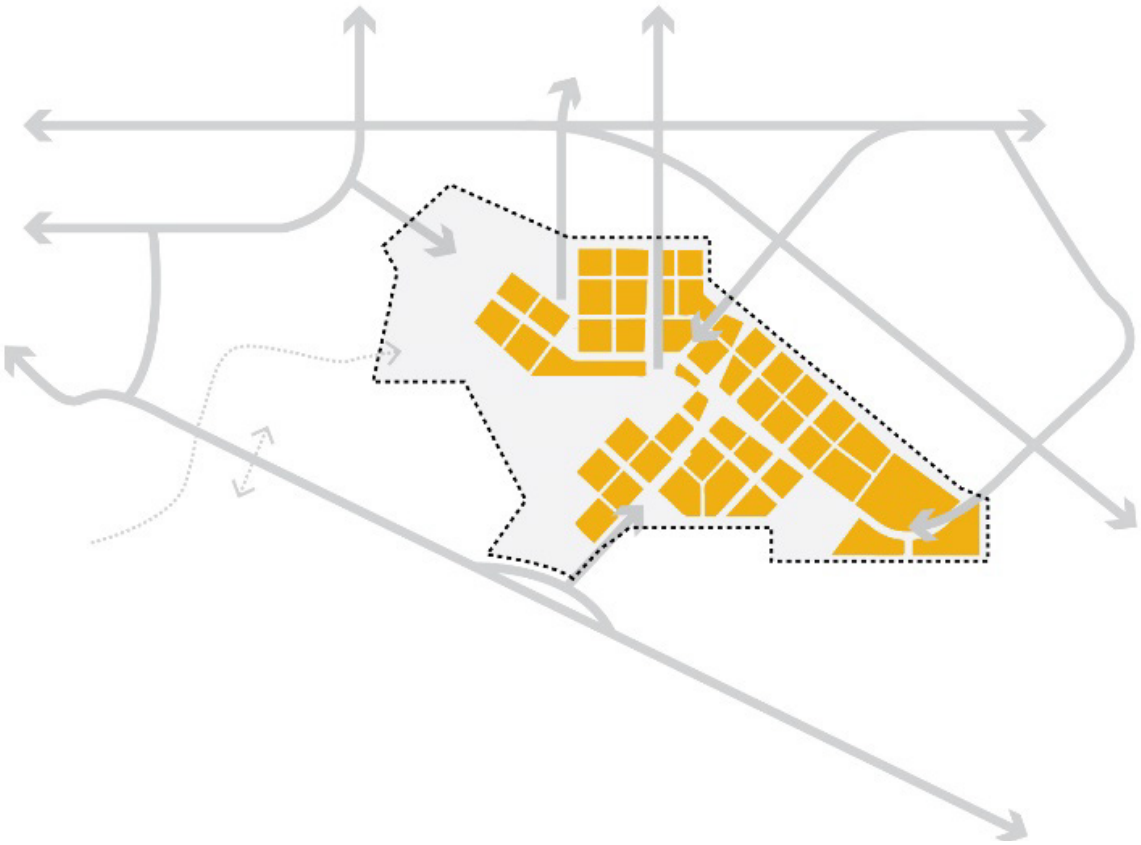
8 **NEPTUNE GATEWAY /** Buildings on this southern edge of the site provide opportunity for active uses to welcome cyclists and pedestrians from the closest connection to the Sun Rail Station.

9 **NEOCITY EAST /** Even the most secure side of the site will benefit from an active street frontage and vibrant spaces for incidental collaboration. Upon entering the site from this gateway a landmark building location provides the opportunity to set the bar for both architecture and ground level activity. A plaza space creating synergy between the BRIDG facility, office building, and future development will seek to establish activity and sense of place early in the project.

5. Block Density

The implementation of a master plan for a complex high-tech manufacturing and research center does not happen overnight. A careful balance needs to be struck between reserving land for future expansion of facilities and the negative outcome of dispersed development where opportunities for collaboration and interaction are lost.

The goal of this development principle is to promote responsible density and avoid sprawl. This design principle establishes a general block size within NeoCity of approximately 400' by 400'. This will create a walkable grid on which to base building positions. Four of these blocks can be clustered to create a quad block surrounded by primary streets while internal cross streets create a secondary grid. Active frontages and collaboration spaces should be focused along the primary streets, with secondary streets more appropriate for lower profile uses, supporting activities, and parking. This principle assumes that if a use exists which is not appropriate for a primary street it should be located toward the center of a block, allowing sufficient space on the block for future frontage buildings to come forward. Similarly, parking should be located toward the center of the block set back from the frontage, making it clear that there is an expectation for future development to line primary streets.



In order to achieve the walkable robust grid, the Master Plan Framework allows a typical block length of between 300' and 500'. Each Block is approximately 3–4 acres in size. To allow flexibility, the Master Plan Framework envisions that development of combined blocks will be allowed by a single developer in double and quad blocks provided that building enclosure and frontages are maintained at primary streets.

Aerial view identifying typical blocks of research, office, and commercial uses within NeoCity.

Aerial view identifying alternative configuration of large format flex space for small business start up within the same primary street grid structure.

The block structure provided by the master plan is designed to allow flexibility in the type of development that it can accommodate without losing the core intention of the design principles. This approach places priority on primary streets, with a subset of secondary streets which can be adjusted or removed to allow for large footprint buildings should need arise for such building types.

The aerial renderings illustrate this design principle through replacement of smaller footprint office buildings with larger footprint flex space while retaining the frontages to the principle streets and linear park street structure.

The following page sets out the full extent of two of the scenarios designed within this structure. These scenarios were ultimately carried forward as the basis for analysis of the economic impact and tax impact potential for NeoCity.

Development Scale and Floorspace Yield

In addition to the potential for the master plan to support a variety of building typologies and footprints, it also considered the implications that the height and scale of these typologies would have on overall development floorspace.

Planning this far in the future, assumptions must made that the market can and will support development of the scale intended to create the design characteristics in the design principle.

In order to assess the implications of each development scenario, a live design/reporting tool was used with the master plan model to assess the right baseline development heights. This tool worked in concert with the creation of the Form Based Code, informing the creation of ROW widths, setbacks, etc., and the allowable development that resulted from adjusting these parameters The model was also used to generate an upper level of development to identify where broad floorspace numbers started to place additional demands on utilities and highways flow.

The overall development potential identified for assessment through the master plan arrived at an approximate 11 million square foot of development over the 50 year build out, with building scale between 3 and 8 floors.

DEVELOPABLE FLOORSPACE YIELD RANGE:

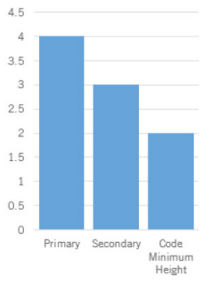
2 floors height minimum = 6 million

3-4 floors building height = 10 million

4-7 floors building height = 16 million

Street Frontage	# of Floors
Primary	4
Secondary	3

Code Minimum Height 2



Use	Total # of Buildings	# of Buildings - Primary Streets	# of Buildings - Secondary Streets	Code Minimum Gross SF	Max Gross SF Based on FAR	Modeled Gross SF Based on Scenario
GeneralResearch	15	9	6	674,240	1,403,856	1,190,386
LabOffice	121	72	49	2,850,560	17,722,423	5,191,817
LargeFlexSpace	14	6	8	677,886	1,306,089	1,112,552
Residential	38	12	26	838,332	1,936,843	1,365,180
RetailOffice	21	16	5	625,396	2,117,944	1,154,875
SensorResearch	2	0	2	230,000	7,016,667	230,000
Special	5	4	1	284,202	436,966	539,100
Total	**216**	**119**	**97**	**6,180,616**	**31,940,788**	**10,783,910**

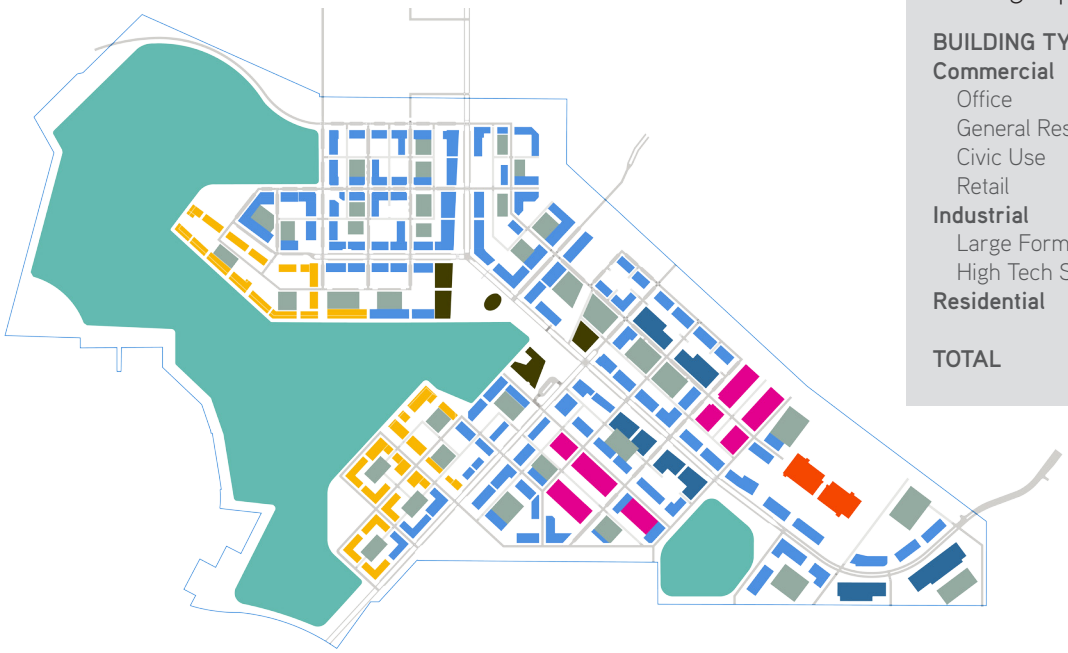
Parking	
# of spaces in surface	2,020
# of spaces on street	2,322
# of levels for structur	5
# of spaces in garages	14,161
Total Parking Spaces	**18,504**
Total spaces needed	19,091
Delta	-587

Use	10 Year	25 Year	50 Year
GeneralResearch	445,715	866,861	1,190,386
Office (Lab & Retail)	651,844	4,242,848	6,346,691
LargeFlexSpace		603,960	1,112,552
Residential		409,715	1,365,180
SensorResearch	230,000	230,000	230,000
Special		539,100	539,100
Total	**1,327,559**	**6,892,483**	**10,783,910**

Tax Revenue Potential (Order of Magnitude Modelling)

	10 Year	25 Year	50 Year
Commercial	$ 34,654,923	$ 251,794,952	$ 735,745,768
Industrial	$ 529,865	$ 16,761,567	$ 68,430,901
Residential	$ -	$ 7,810,702	$ 117,534,836
	$ 35,184,788	**$ 276,367,222**	**$ 921,711,506**

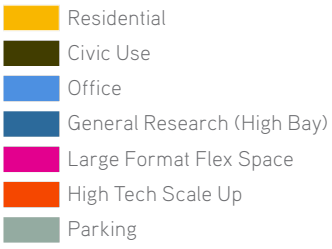
Scenario 1 / Office Weighted Scheme



Building Square Footage by Category

BUILDING TYPE	Millions of SQFT
Commercial	**8.5**
Office	7.2
General Research + Office	0.7
Civic Use	0.3
Retail	0.3
Industrial	**0.7**
Large Format Flex	0.5
High Tech Scale-Up	0.2
Residential	**1.7**
TOTAL	**10.9**

Figures have been rounded, see appendix for further detail



Scenario 2 / Industrial Weighted Scheme

Building Square Footage by Category

BUILDING TYPE	Millions of SQFT
Commercial	**7.1**
Office	5.2
General Research + Office	1.5
Civic Use	0.3
Retail	0.3
Industrial	**2.2**
Large Format Flex	1.8
High Tech Scale-Up	0.5
Residential	**0.5**
TOTAL	**9.9**

Figures have been rounded, see appendix for further detail

CREATING RESILIENCY

Resiliency Process

As part of the master plan process the consultant team ran several resiliency workshops to identify whether the emerging Master Plan was fully considering the potential economic, environmental, and social impacts on NeoCity in the future. These impacts, when identified, then require the evaluation of the Master Plan to determine if it is resilient enough to withstand that shock of a sudden impact, or the stress of a chronic impact. The process also considered the impact of NeoCity itself on its immediate context and wider region.

Initial Resource Efficiency

At baseline master plan level, the following considerations for resource efficiency were identified and discussed during the master plan workshops:

- Innovative stormwater strategies;
- Native and/or xeric landscape;
- Low intensity landscape maintenance – requiring fewer inputs;
- Condensate capture from research buildings;
- On-site power generation (solar and wind);
- Solar orientation, building layout, and materials to minimize solar gain;
- Prevailing wind considerations.

County representatives and stakeholders participate in a resiliency workshop.

Understanding Special Uses

NeoCity is a new major urban district, it is not a short-term isolated project. It requires all of the integrated planning considerations that come into play with managing a dense urban area. Within its life cycle, beyond the 50-year build out horizon, the development must be able to accommodate replacement buildings, changes in use, shifts in industry, and adjustments in regulatory controls. As part of the introduction to resiliency with the client, discussions included consideration that sensor lab buildings have reuse opportunities as data centers or other secure facilities. They also have the ability to be subjected to a controlled shutdown and complete seal of a facility if needed for a period of time. In extreme events they also provide shelter in place capacity.

Resiliency Summary

The following page summarizes the top four resiliency issues addressed in the Master Plan and uses the design principles to articulate the response of the design to these potential issues. These considerations demonstrate Osceola County's holistic view of the NeoCity project and their commitment to its long-term success.

Block Density

Activity Nodes

Block Density

Matrix of Uses

Gateways + Connectivity

Gateways + Connectivity

Integration of Water

Issue:
Hazardous materials accident.

Potential Impact:
Evacuation, stress on healthcare system, cost of site shut-down/clean-up, loss of trust and credibility on a global scale, damage to Everglades, impact on drinking water.

Stakeholders:
Local industry ecosystem, neighboring residents, Osceola County.

Response:
Matrix distribution of uses from public to secure, from block to building. Consideration of security and safety requirements, supporting emergency response times study.

Issue:
Industry collapse/market crash.

Potential Impact:
Loss of investment, unemployment increase, withdrawal of funding, lower quality construction, longer term O+M costs, alternative development strategy which provides lesser job creation.

Stakeholders:
Businesses on site, local property owners, Osceola County.

Response:
Using robust development form, connected street grid, and adaptable building development guidelines to create flexibility for a wide variety of land uses to come forward over the 50 year master plan timeline.

Issue:
Infrastructure not sized for growth.

Potential Impact:
Loss of trust and credibility on a global scale, commercial and personal disruption, loss of research, localized pollution.

Stakeholders:
Local industry ecosystem, developers, neighboring residents, Osceola County.

Response:
Scenario planning of potential outcomes and utility need, options, costs supported by a utility study of potential impacts.

Issue:
Severe Storm / Flooding.

Potential Impact:
Property damage, research downtime, increased cost of insurance, local water contamination.

Stakeholders:
Businesses on site, local property owners, Osceola County.

Response:
Regional water management and irrigation strategy, raising level of the site and development, embedded low impact design solutions within site, streets and buildings.

03

NEOCITY

03

FEATURE SPACES

03

FEATURE SPACES

The Master Plan creates the opportunity for a wide variety of memorable townscape spaces and experiences based on the configuration of streets and views to buildings, from enclosed, intimate courtyards to open plazas.

Feature spaces are critical to place-making within NeoCity

1. CENTRAL PLAZA (see enlargement on adjacent page)
2. PENINSULA PARK
3. NEPTUNE PARK
4. LINEAR PARKS
5. GREENWAY
6. URBAN FARM

PONTOON / Allowing interaction and experience over the water, pontoons will either be piers or floating on the variable pond level.

CENTRAL PLAZA AND HUB PAVILION / Focal pavilion provides exhibit and interaction space for civic and corporate events in the plaza.

GREENWAY / Interactive water feature allows contact with water that is controlled while giving the illusion of connection to the pond itself.

BRIDGE / Spanning the connection between linear park and plaza the bridge offers a change in level and elevated perspective on the space.

EVENT + CONFERENCE SPACE / Centrally located at the heart of the district this building site provides for a civic focus and indoor and outdoor event spaces.

GREEN ROOF / Surrounding development and parking structures contribute to cleaning and slowing rainwater before it flows into the reclamation pond.

Central Plaza and Boardwalk

CENTRAL PLAZA AND BOARDWALK

A multi-functional plaza space forms the heart of the NeoCity district. It promotes flexible gathering, informal activities, water interaction, and is tied together by a signature bridge adding verticality of views across the space and over the water. A water feature with a controlled water level draws the eye in from the main body of water in the pond and allows for direct interaction with the water before connecting visually eastwards along the main street linear park.

The plaza space creates the buzz that people talk about, a place to see and be seen. It is the natural location for arranging to meet a new client, a colleague, or friends. This location will serve as the start point for future recreational events and the gathering spot for tech launches. It is adjacent to private entertainment spaces, outdoor patios and verandas. It is the space that everyone can direct you to with ease and familiarity. A play of light and water will create engaging 'rooms' of both activity and tranquility within the overall development, with the flexibility to allow for larger gatherings and events.

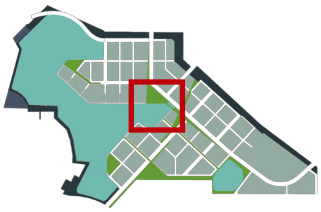
Flowing out from the plaza space the boardwalk boulevard is at the center of a network of a community-wide trails, which connect the site to adjacent residential and commercial uses, as well as local and regional public transit. The boardwalk has moments of projecting pontoons that allow for greater interaction with the water.

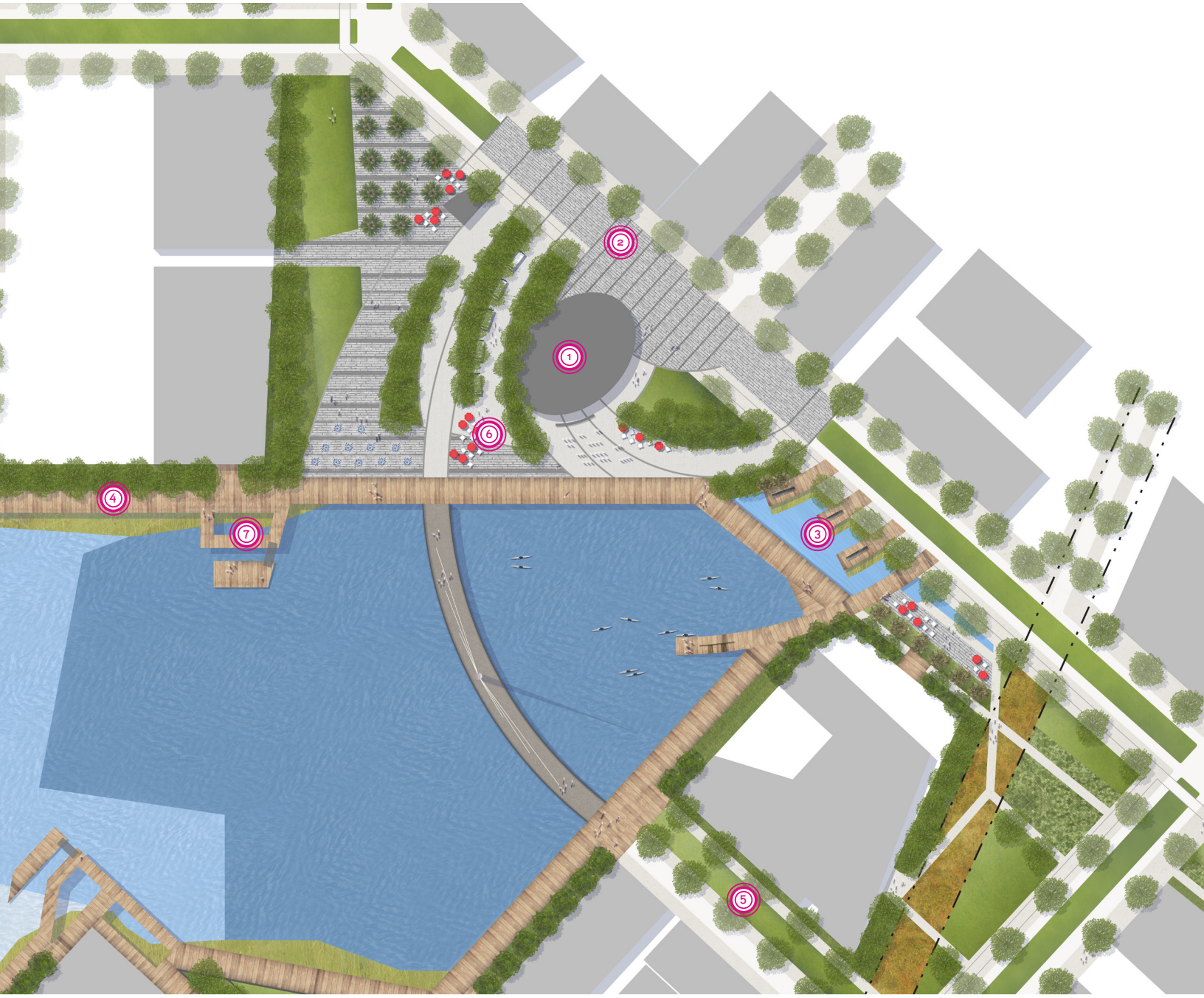
Play of light and water will create an engaging plaza space (images provided by GAI)

1 FOCAL HUB PAVILION /

2 PAVED SHARED SURFACE STREET SECTION /

3 INTERACTIVE WATER FEATURE /





Central Plaza Landscape Detail

4 BOARDWALK BOULEVARD /

5 LINEAR PARK /

6 CAFE SEATING /

7 FLOATING PONTOON /

NEIGHBORHOOD PARKS

Peninsula Park

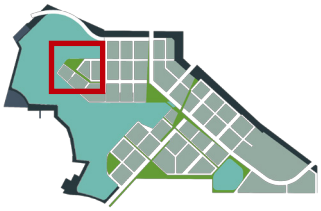
Across NeoCity a wide variety of public spaces have been created for gathering, incidental meeting, and collaboration. They embrace native landscapes and moments of water interaction. Every building has the potential for a view of a greenway, a tree-lined street, open space, or an expanse of water. The Master Plan creates these spaces as functional components in the overall strategy for the district by incorporating water reclamation, shade and cooling, and social spaces.

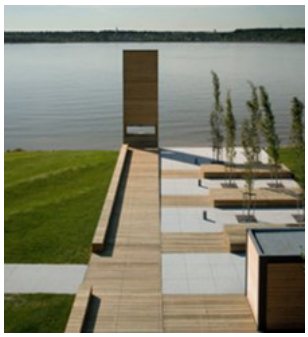
Peninsula Park with board walk providing a continuation of the street out over the water.

1 COMMUNITY SPACE /
Node of interaction within the space provides a focal point for gathering and shade during summer evenings.

2 PONTOON EXTENSION /
Continuation of the line of NeoCity Way / main street over the water as a symbolic terminus of the street running through the entire district

3 NATIVE PLANTING /
Structured landscape designs contrast flowing native grasses, subtly referencing a move from riparian edge to upland trees.



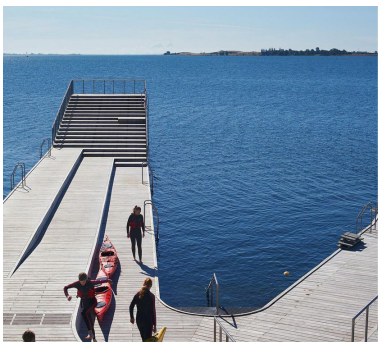


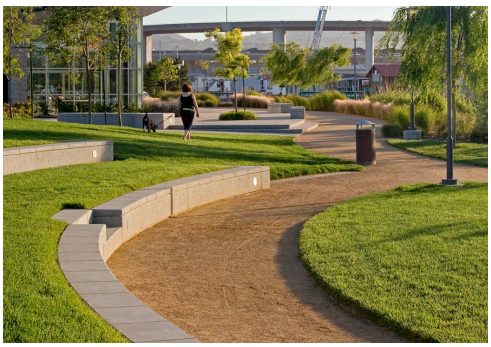
Combinations of stone and boardwalk wood provide visual contrast and comfortable varied seating options (Landscape comparison images provided by GAI).

Neptune Park

On the south edge of NeoCity, closest to Neptune Road, a neighborhood-scale park provides an amenity to new residents and a softer edge at the closest point of development to existing residential scale properties. This park is also located as part of the 5.2km running trail around the pond and adds to the interest and experience of the trail.

Opportunity exists in the landscape treatment of this park to provide space for family activity and introduce a variety of materiality to the landscape utilizing stones, rock, and sand with native grasses and palms.





Peninsula Park with board walk providing a continuation f the street out over the water.
(Landscape comparison images provided by GAI).

COMMUNITY HUB / Shade structure providing accessible outdoor seating and tables for both community and visitor use.

PONTOON EXTENSION / Diagonal boardwalk extension from the community hub provides a lookout point back to the park and over the pond.

'BEACH' / Artificial beach constructed in place of a rip-rap edge section to provide a variation of materiality and texture unique to this park.

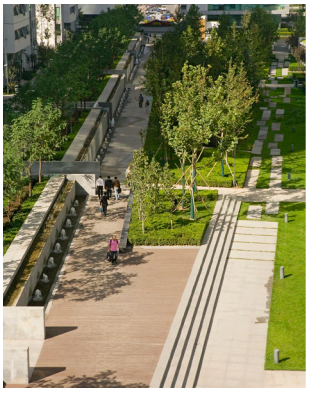
Neptune Park: 'Beach' area with unique pond edge treatment and programming is the most family friendly and residential focused space within NeoCity.

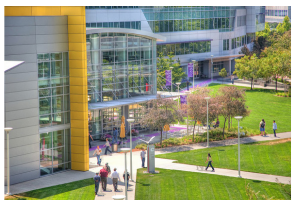
LINEAR PARKS

Linear parks form an important component in the Development Framework Plan of NeoCity. Not only do they provide a distinctive street characteristic ensuring that future buildings will have views of trees and green streets, they also provide the opportunity for Low Impact Design features and incidental clustering space for indoor/outdoor meeting, cafe tables and restaurants.

Linear park Street Section showing narrow vehicle traffic lanes and on-street parking creating an accessible street along the length of the park.

1. ON-STREET PARKING /
2. SHADED SIDEWALK /
3. FLEXIBLE CAFE SEATING /

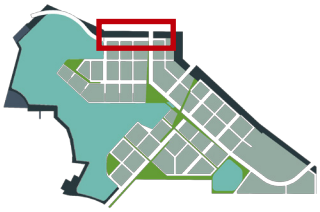




Water can be introduced along the length of the linear park as well as seating and other streetscape components which allow for flexible use of the space. Shade is supplemented by additional trees beyond the typical street tree planting. (Landscape comparison images provided by GAI)

Greenway

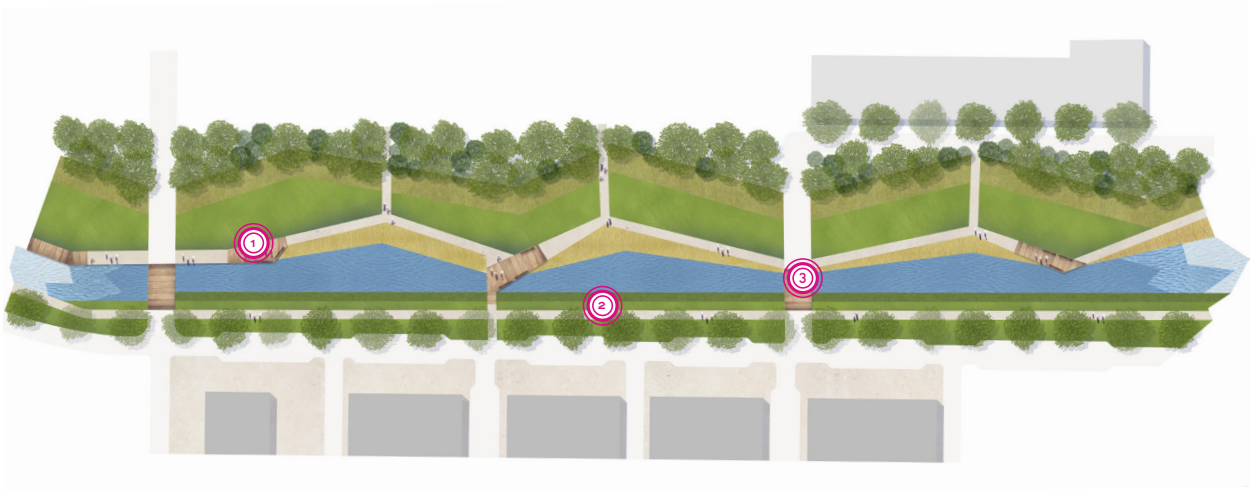
Part of the structural water management concept for the site includes a stormwater channel along the northern side of the district. This channel presents an opportunity for development to face onto this green space as a grand green corridor or greenway. This space will be one of the first experiences of NeoCity for visitors entering the district from the north or west and strikes an engaging first impression.



1 NATURAL WALK / Weaving through native planting, a slow pedestrian walk follows the northern side of the greenway. This softer buffer edge will aid a transition to properties to the north which may develop at a later time-frame than NeoCity.

2 SHADED SIDEWALK / The southern side offers a more traditional pedestrian promenade along the greenway shaded by street trees with periodic connection nodes.

3 PEDESTRIAN BRIDGES / Light weight small bridges allow frequent crossing opportunities from north to south providing a structure for good pedestrian connectivity for future development to the north.

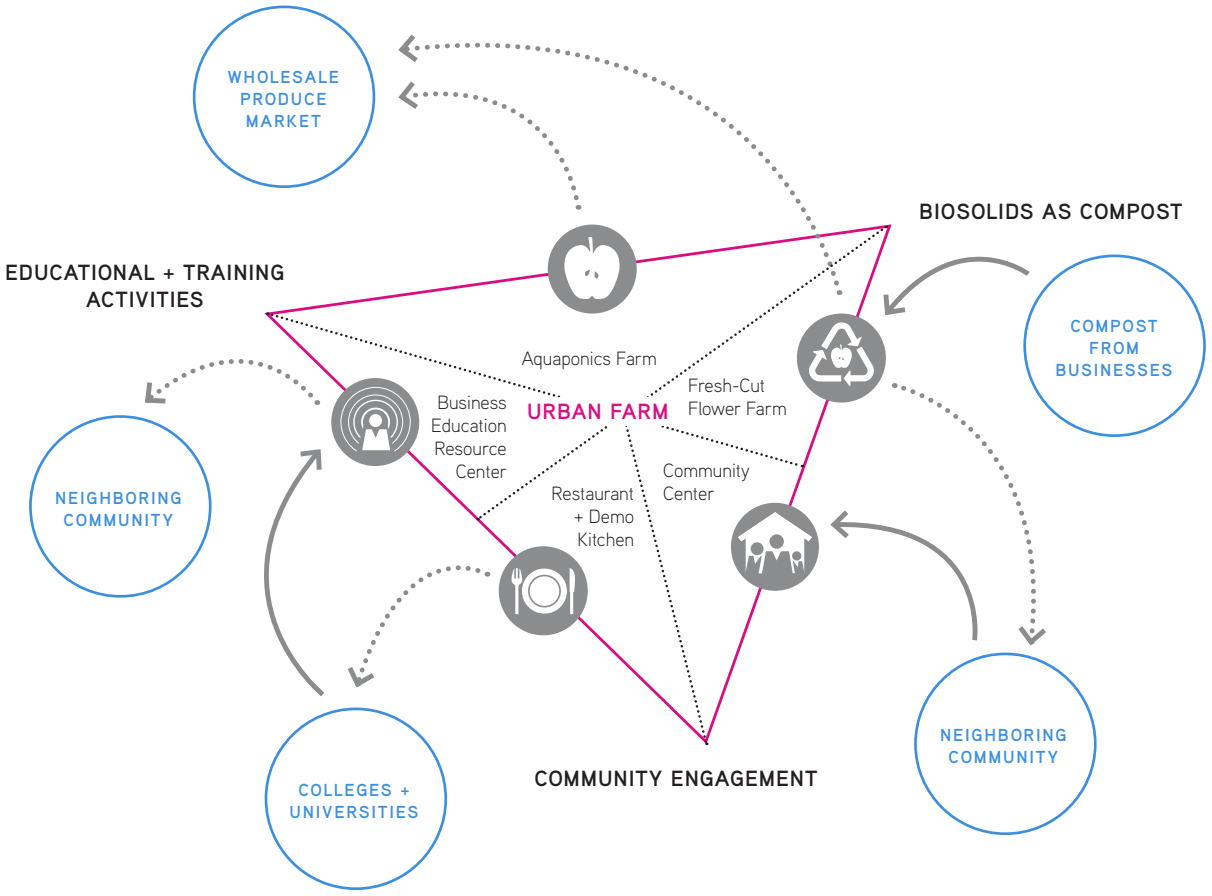


Linear strips of boardwalk and seating areas interact with the naturalistic treatment of the water channel. (Landscape comparison images provided by GAI)

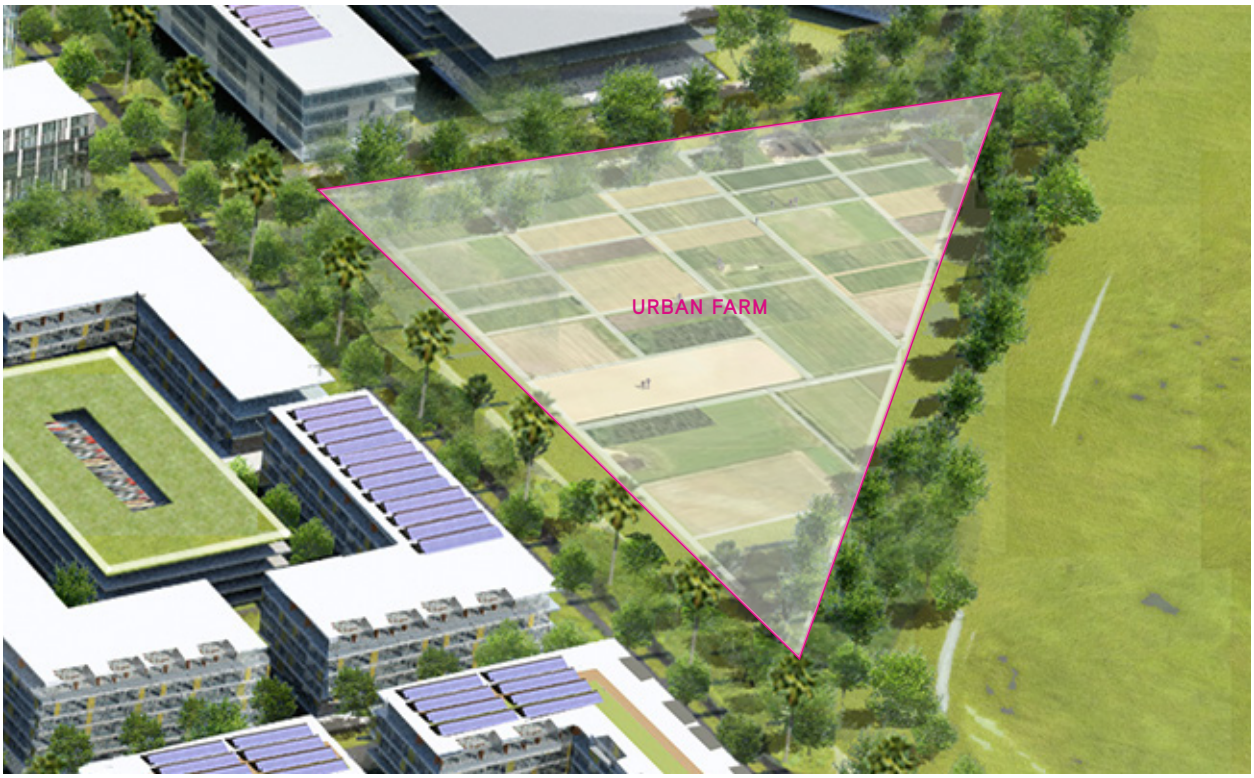
URBAN FARM

NeoCity provides an opportunity to develop synergies between the emerging sensor industry and the historic agricultural past of the site to create a modern test bed for advances in farming. Opportunities range from:

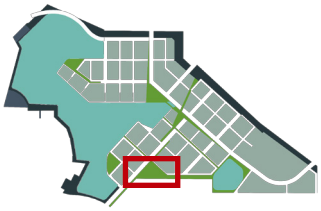
- Farm management software which provides a dashboard to aggregate all relevant information needed to run operations making it easier to spot inefficiencies and issues.
- Hardware solutions in the farm environment provide data streams about performance of crops, machines and micro-climate conditions.
- Farm robotics are increasing as new ways to assess farm health and condition. Combination farming in the urban setting may include new technologies from LED lighting, to aquaponics, and vertical farming.
- Distributed small-scale vertical farming is increasingly being integrated into urban areas. NeoCity provides an opportunity to combine indoor and external farming providing a test lab for growth patterns, remote monitoring, and new technologies in LED lighting and robotics.
- Food grown at NeoCity to support on-site restaurants as well as providing food for local delivery and farmers markets.



NeoCity 10 acre Urban Farm:



The urban farm also provides a community focus and a link to the heritage of the site. A farmers market should be established and partnerships should be sought with restaurants looking for locations within NeoCity to support a fresh food, 'Farm to Fork' culture. The urban farm would support a farmers market on-site, distribution locally to small scale delivery for companies and local residents, and commercial Farm to Fork restaurants.



04

NEOCITY

04

DESIGN GUIDELINES

04

DESIGN GUIDELINES

Introduction

The Design Guidelines section of the Master Plan is split into three parts. The first part concerns the implementation of infrastructure necessary to develop the site and produce the high-performing district envisioned by Osceola County. It covers aspects of implementation of the reclamation pond and the character of the pond edge. It also covers the coordination of the streetscape hierarchy and the installation of utilities.

The second part of the Design Guidelines covers aspects of implementation which will apply to development of parcels within the district. It covers important design characteristics from parcelization to scale, building relationship to the street, and active uses.

The third part deals with architectural palette and landscape palette. This focuses on comparison imagery while illustrating the direction of the design intent for NeoCity.

As demonstrated in the illustrative render, basic streetscape components are included in the Design Guidelines including building constructed to the back of sidewalk/right of way line, active ground floor uses, and building heights which provide street enclosure.

PART 1 :

SITE IMPLEMENTATION

A: POND EDGE IMPLEMENTATION

B: STREET + UTILITY IMPLEMENTATION

Phase 1 of NeoCity is underway. With one building complete and a second under Request for Proposals. The site still requires significant engineering works to establish the water reclamation pond, stormwater management, urban farm, and trails.

Phase 1

Introduction

This section of the Design Guidelines focuses on the requirements necessary to implement development on the NeoCity site. It sets the foundation for construction of the reclamation pond and early configuration of edge typologies to match future development opportunities.

This part of the Design Guidelines also details the street hierarchy characteristics from street section design to phasing of roadways for growth and coordination with utility installation.

A. POND EDGE IMPLEMENTATION

Stormwater management can be integrated as an amenity to the site as shown in these examples

Pond and Stormwater Management

Over twenty design scenarios were created in the first design workshop for the NeoCity Master Plan and its master stormwater management system. Each one took a variation on the pond location and provided specific design functions, such as increasing potential water frontage, consolidation of water in one large pond and separation into multiple smaller ponds to distribute catchment.

These options were evaluated through meetings with Toho Water Authority (TWA) and Osceola County's consultant engineer leading to the creation of two possible scenarios. The two refined scenarios were discussed with representatives from planning, engineering, and transportation departments at the County.

A preferred scenario concept was selected which created the balance between near-term stormwater catchment needs for the first buildings on the site and the long-term requirements of the regional water reclamation and management needs of the County and TWA. The primary features of this selection were to create an outstanding world class location at NeoCity, using water to benefit its character, identity, and sense of place. Particular attention was given to creating interaction with water throughout the site, treating it as an amenity rather than a utility.

Part of the wider network of water management features on site includes a channel through the greenway which collects water from the east side of the district and moves it west to the reclamation pond. From its eastern end this channel is a functional feature of the site, however it becomes progressively more active towards the west of the site once it connects to the Greenway trail.

The pond shape was elongated, and control structure weirs were placed to maximize holding time for storm-water runoff within the permanent pool volume of the pond. The exact boundary of the pond required multiple iterations of design review between the engineering team and the design team to balance functionality with design aesthetic demanded by the site.

Low impact design solutions intended to benefit the environmental conditions of the pond led to the creation of a contiguous connection for the entire western edge of the lake boundary. This boundary and buffer were refined from initial design scenarios allowing a seamless connection for ecosystems, birds and animals to cross between the pond, the wetlands, and Lake Toho to the south. Earlier design options reduced this connection, but practical and environmental consideration led to redesign that opened up the entire western boundary of the pond to meet the wetlands around Mill Slough.

Consideration has been given to operation and maintenance of the facility and an effort to minimize the treatment needed to clean the pond water. The design team introduced low impact design solutions within multiple linear parks aligned with the flow of water from east to west on the site, allowing cleaning of surface water prior to entry into the pond and thus reducing maintenance requirements.

The stormwater pond system has been designed to provide for an 85% impervious area throughout the NeoCity development. Note that as a source for TWA's reclaimed water, the pond has been designed to have varying water levels with a differential between stages of approximately 12'. The table below includes the expected staging from the permit.

Master Storm-water Pond Staging

STAGE	ELEVATION (NGVD 29)
Top of Bank	58.00
Design High Water Line (DHWL)	57.00
Normal Water Line (NWL)	55.00
Low Water Line (Pumping Elevation)	43.00
Pond Bottom	37.00

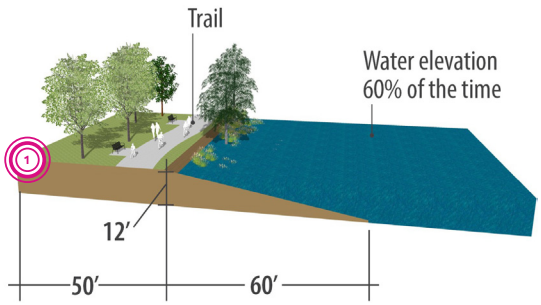
Elevation data provided by Dewberry

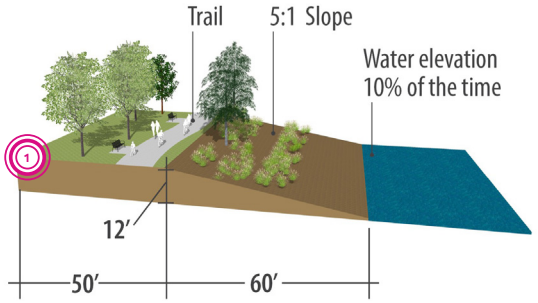
A. POND EDGE IMPLEMENTATION

Initial Pond Edge Construction

An earthen edge to the pond will be constructed with a maximum slope of 5:1. Along the southwest there will be a berm to protect existing houses and a minor ditch to the south of this to manage run off from the neighborhood.

To the north the level of the land will be raised to meet the level of the berm giving a consistent edge around the pond at a minimum construction cost.



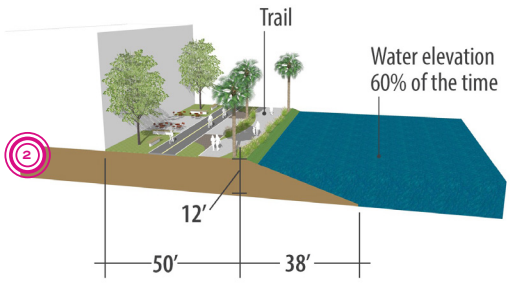


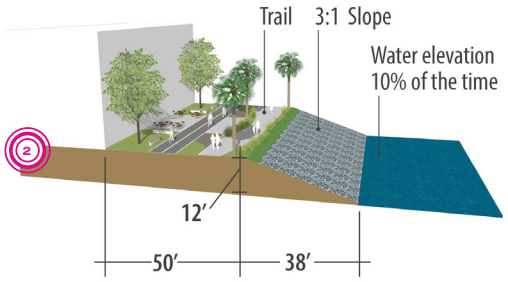
Initial permitted Phase 1 Pond configuration

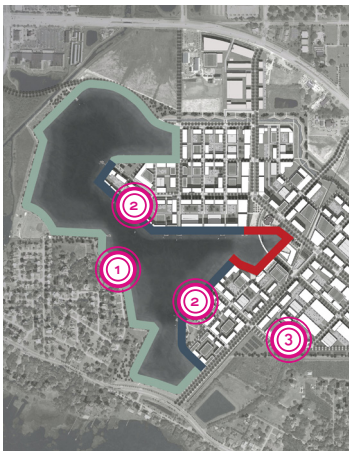
1 EARTHEN BANK EDGE/

Long-term Pond Edge Construction

As development takes place on the pond edge, parcel developers will be required to assist the County in implementation of the long-term pond edge strategy. Two additional types of edge from the initial soft pond edge are intended: a rip-rap edge built at a 3:1 slope, and a vertical bulkhead at the core of the district which provides the most urban condition of the site around the central plaza and bridge.





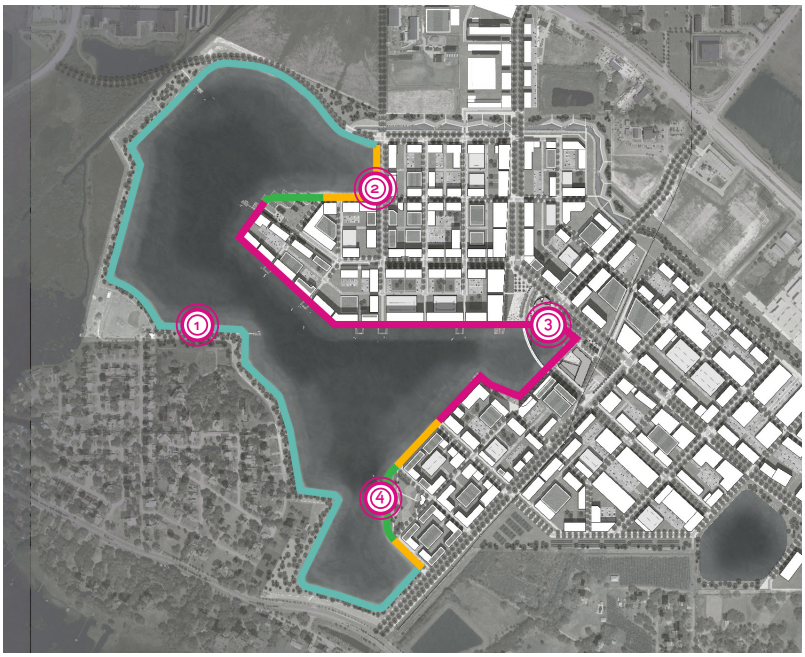


Final pond configuration including Oak Street connection and improved edge treatment

1 EARTHEN BANK EDGE/

2 RIP-RAP EDGE/

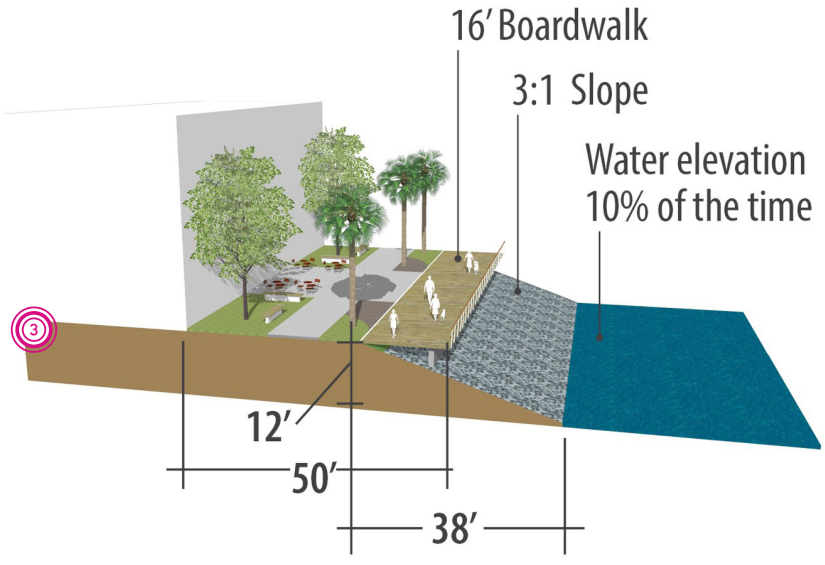
3 BULK HEAD EDGE/



Pond Edge Character

In addition to the construction typology of the pond edge, its character will evolve based on adjacent development coming forward. There are four pond edge characteristics envisioned for the long-term perimeter of the pond.

1. **SOFT LANDSCAPE TRAIL/** Natural feeling pond edge with trail.
2. **BUILDING FRONTAGE PROMENADE/** Wide sidewalk, active building frontage and on-street parking for easy access.
3. **BOARDWALK + PLAZA/** Direct connection from building to boardwalk with spill-out cafe seating.
4. **PARK LANDSCAPE EDGE/** Varying materials and design providing unique moments within the pond trail loop.



Example section of Boardwalk over Rip-Rap pond edge creating a specific character and extended public ream for interaction and circulation around the reclamation pond.

Different treatments and extents of the pond edge have been considered for first phase and long-term implementation of the pond, including a sloped bank edge and rip rap edge. The varying extent and location of these have been through a significant number of design iterations corresponding to the creation of appropriate edge conditions in relation to the proposed development form for NeoCity. Cost implications have been considered for the location and extent of each. Osceola County code requires 4:1 side slopes, but steeper slopes (up to bulkheads) may be used for up to 40% of the pond perimeter.

B. STREET + UTILITY IMPLEMENTATION

Street Hierarchy and Street Sections

Streetscape design, typically approached through a street section, is a critical element in ensuring the logistical needs of the right of way to carry traffic, people, utilities, and stormwater are met and is done in such a way which is attractive and engaging for those using the street. Streets are the primary way we engage the City, and as such have many competing demands.

The street sections developed throughout the master planning process of NeoCity reflect a shared agreement from the stakeholders of the multiple needs required in the right-of-way and the desire to create, above all, walkable urban environment.

Initial street section showing single lane in either direction and wide median planted with street trees.

Potential long-term street section showing conversion to two lanes in each direction.

Street Phasing

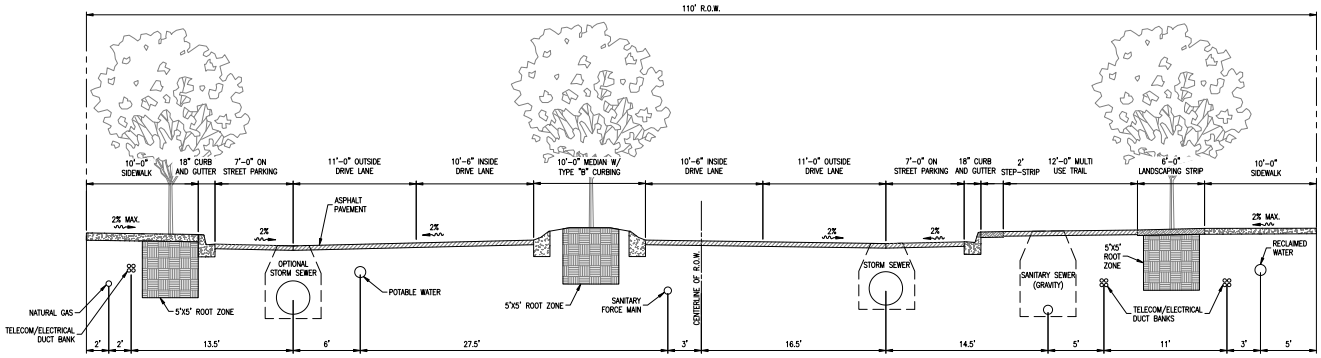
NeoCity is designed for vehicle speeds of 25 mph. An approach has been taken that will see the primary streets initially built as single lane in either direction with a wide median. This will allow access while reducing vehicle speeds and providing easier crossing for pedestrians. In locations where it is required, turn lanes could be added, and in some locations even adding a second lane in each direction. However, the presumption will be that transportation demand management will be used prior to road widening, and walking and cycling within the district will be given priority over vehicle use.

Utility and Street Section Strategy

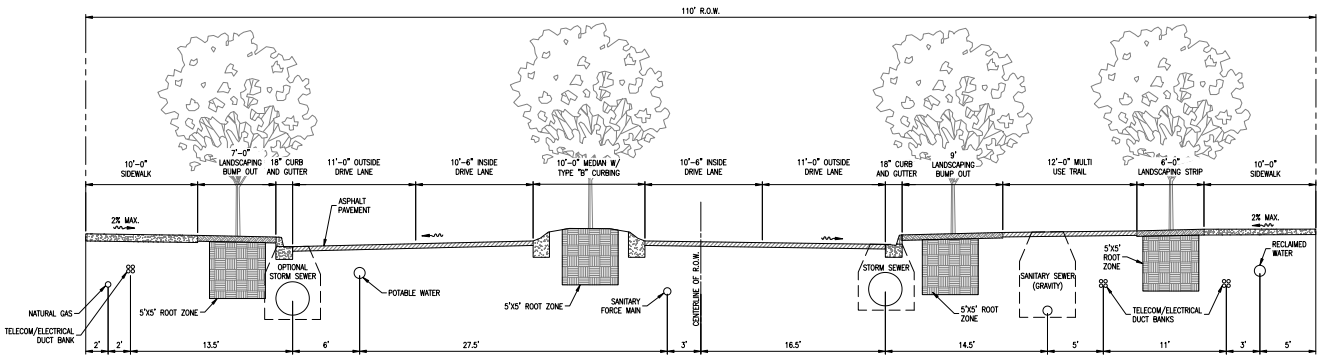
The methodology used to integrate utility considerations into the master plan includes data from Osceola County resources, South Florida Water Management District, and available mapping from utility companies. Analyzing the collected data included site investigation visits, design charrettes/workshops throughout the master plan process, plus discussions with relevant utilities and County personnel. All utilities will be provided for within the ROW in order to create an urban street scene with buildings permitted to be built to the edge of the sidewalk to facilitate active ground floor uses.

This integrated strategy provides concepts designed to be flexible in order to accommodate users with varying needs for land area. The primary street network represents areas that will need to be completed in order to facilitate efficiency and movement throughout the development. The secondary street network represents areas that may or may not be constructed based on user's land needs (i.e. roads that are not constructed due to a single user procuring multiple adjacent blocks).

It is recommended that service laterals, and other related infrastructure such as meters and back-flow preventers are located within the secondary streets. This will eliminate the need to provide open cut connections or disrupt the primary street, which are programmed to be constructed in the near-term phase of development. An alley section is also recommended, as an alternate opportunity to connect utility services or for communication duct banks outside of primary street.



Primary street section at on-street parking location showing position of street tree relative to storm sewer and other utilities



Primary street section at bulb out location showing position of street tree relative to storm sewer and other utilities

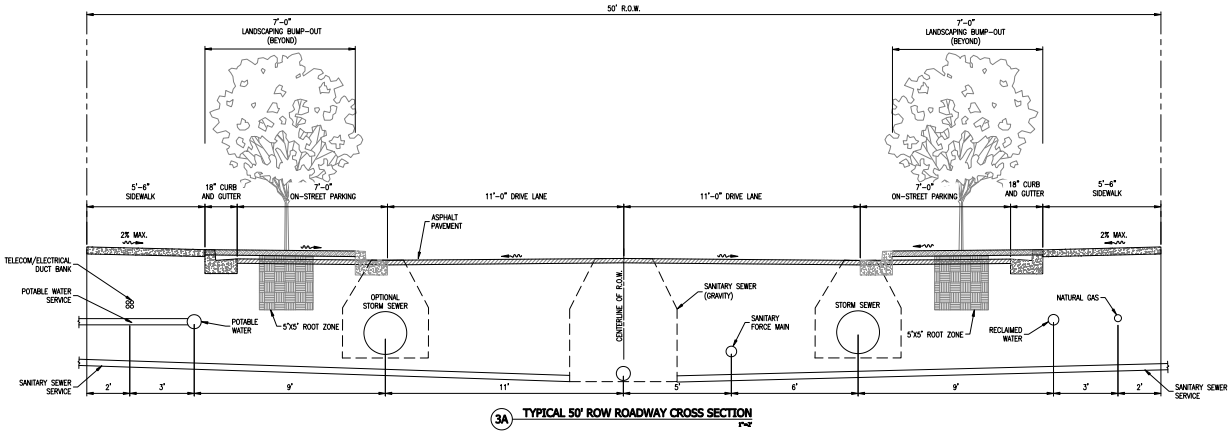
B. STREET + UTILITY IMPLEMENTATION

Sanitary Sewer and Forced Mains

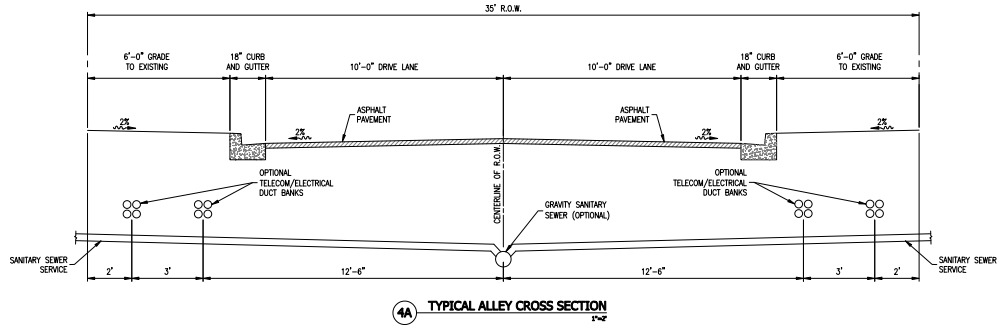
Public sanitary sewer service is provided by the Tohopekaliga Water Authority (TWA). At total build out (50+ years in the future), all on-site force mains are anticipated to be designed as 12" pipes, although this may vary depending upon peak loading and site wastewater generation. The proposed configuration sends the flows to the South, to TWA's existing 16" force main in the Neptune Road right-of-way. This means the existing force main, and also potentially TWA's receiving wastewater plant, would have to be upgraded to adequately serve the development as growth continues.

Natural Gas Services

The natural gas service provider for this area is TECO Peoples Gas (TECO), who provide gas service to the FAMRC site via NeoCity Way (East). A 4" steel gas main will be located along the north side of the road, 3' from the right-of-way line. Future extension of the gas main should be located near the Right-of-Way line, as TECO will not install a gas main longitudinally under the roadway pavement. Three foot minimum of separation is required from electric duct banks. One foot minimum of separation is required from communication duct banks with the condition that they are housed in plastic conduit.

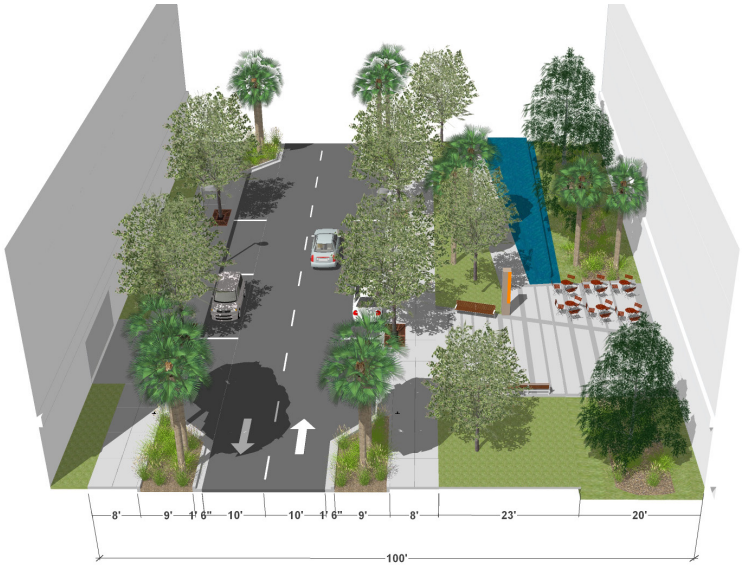


Secondary street section showing position of street tree relative to storm sewer and other utilities



Alley section showing potential alternative position of utilities

The section below shows the Linear Park Street with the vehicle lanes located off-center within the right-of-way to allow a greater amount of space on one side of the street for sidewalk activity. Utility configuration is entirely within the 50' circulation corridor as within the secondary street.



Potable Water Utility Separations

Potable water service is provided by the Tohopekaliga Water Authority (TWA). As is the case with the sanitary sewer system, the water main network would be constructed within the public right-of-way within NeoCity to avoid utility easement setbacks. Some services lines may to be located under parking lots or green space to efficiently serve each building. It is highly recommended that all water mains be constructed at the same time as the road network. The water system shall be constructed in conformance with the TWA Standards, Specifications, and Details (current edition). In general, the following minimum separation requirements shall be met:

- Trees: 5' (measured from root ball at maturity)
- Gas mains: 10' (measured from edge of pipes)
- Other utilities from TWA structures & mains: 6' minimum (10' preferred) (measured from edge of pipes/structures). Exception is that TWA requires a minimum of 10' (and possibly more to allow for future excavation) if facilities are at a lower elevation. See also TWA standard detail for specific instances where 3' separation is allowed.
- Must also meet FDEP & TWA separation requirements (per standard detail)
- Minimum cover requirement: 36" unless ROW agency requires deeper
- Pipes to be positioned outside of load bearing zone from buildings. Must also provide adequate offset to allow installation of trench box to access the TWA facilities without disturbing/entering the load bearing zone.
- The proposed potable water system shall be adequately looped with connections to the TWA existing water mains along Highway 192 and Neptune Road. Internally to the NeoCity district, the block structure will lend well to a looped system, which will create a reliable water system network.

Reclaimed Water Mains

Reclaimed water service is provided by the Tohopekaliga Water Authority (TWA). A 12" reclaimed water main trunk line is proposed to connect to both existing water mains at the North and South edges of the NeoCity district. All proposed water mains within NeoCity will be 8" lines. The reclaimed water main network will be constructed within the public right-of-way. Some services lines may be located under parking lots or green space to efficiently serve all areas requiring irrigation. It is highly recommended that all reclaimed water mains be constructed at the same time as the road network.

Electricity

The Kissimmee Utility Authority (KUA) typical underground main line "feeder" consists of (3) 500 MCM Copper cables in (1) 6" PVC conduit. All 13.2kV switchgear will be pad mounted and typically spaced 450' apart. The Type 11 Pad Switch is approximately 8'x8' and about 4' high. The Type 7A Junction Box is about 6'x3' and 4' tall. Accommodations will need to be made for the large switchgear, potentially in an easement located on private property, or located in park/open space areas. These should be discretely located on secondary streets or integrated into street walls to avoid over prominence in the street scene.

PART 2:

DEVELOPER REQUIREMENTS

A residential development in the Netherlands with an exceptional relationship to the waterfront.

The Design Guidelines found in this section create the foundation for building a walkable, active, and vibrant development at NeoCity. Building on the Development Framework Plan, these guidelines support a strong public realm across the site by creating standards for buildings that compose public space, orient activity to the street, and create a distinct feeling of place. They provide for a diverse mix of uses across different portions of the site, allowing for flexibility where needed.

The Design Guidelines are organized around three fundamental elements – the urban transect, street hierarchy, and development parcel. Beginning from this organizational framework, the guidelines specify appropriate site organization, building scale, and activity across the development. The guidelines create a set of baseline criteria from which to begin the development negotiation process between Osceola County and other entities, providing a clear set of expectations for both sides. More specifics on the development approval process are provided in Chapter 05, Implementation.

Design guidelines are the foundation of implementing the vision for NeoCity.

A: OVERVIEW

Urban Transect

NeoCity is divided into three transect zones which dictate the intensity, scale, and form development takes across all portions of the site.

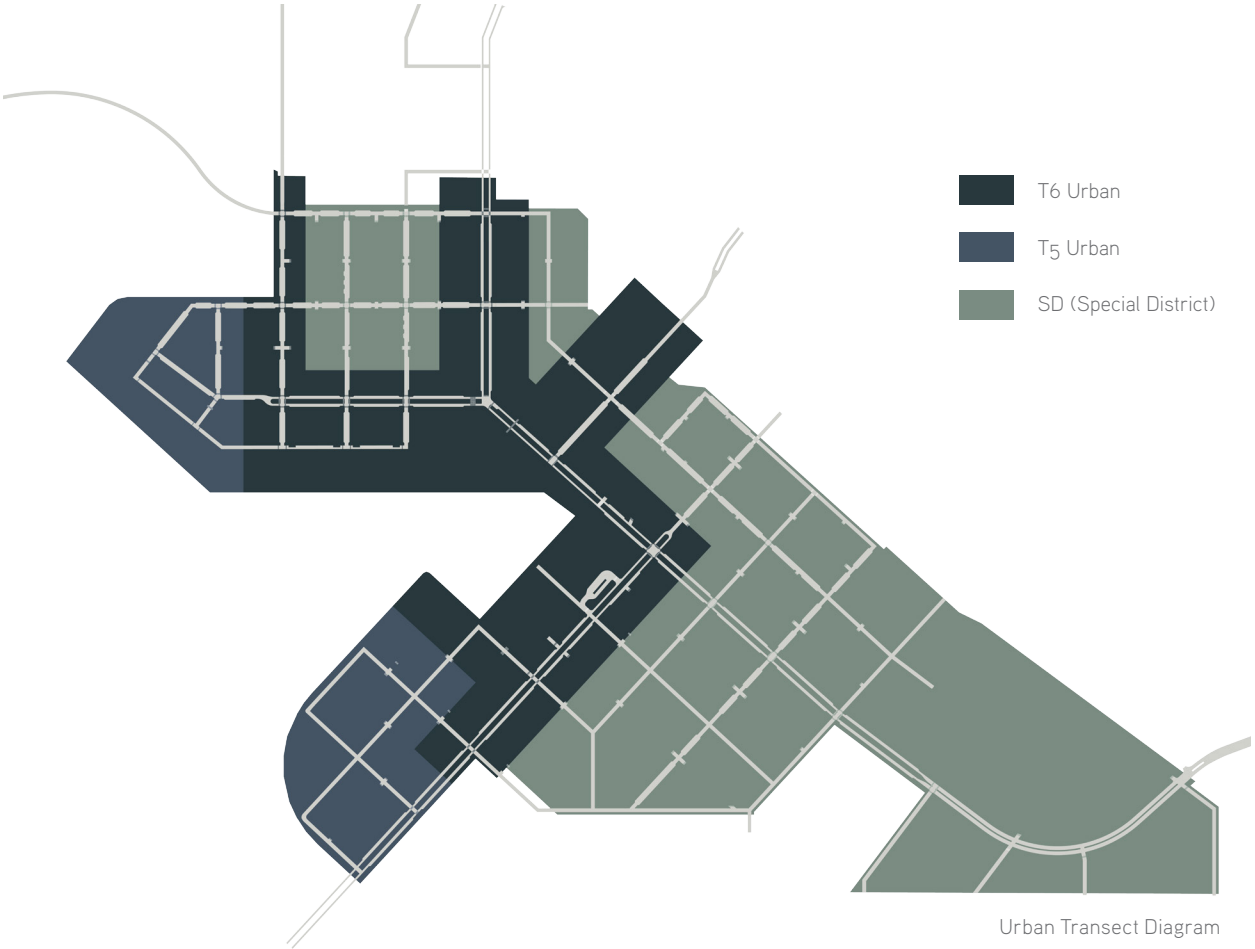
The master plan is divided into three "transect" zones which exist to guide the development form in each zone. These transects are meant to allow for different development forms across the site, corresponding to the matrix of uses design principle. The transect zones do not dictate uses, but rather each transect zone dictates different levels of density, massing, site disposition and organization, as shown in the Form Based Code Table. This approach is meant to promote consistency in urban design while allowing sufficient flexibility in building use and architectural design.

While each of the three transect zones (T6 Urban, T5 Urban, and SD – Special District) have different requirements, all transect zones promote walkable streets, strong building-street relationships, active frontages, and urban building typologies. The Special District provides the most flexible guidelines to support the needs of specialized buildings, while T6 has the most strict guidelines as it frames many of the most important streets and public spaces on the site.

T6 URBAN / Highest intensity, zero lot line on primary streets, highest requirement for active frontages.

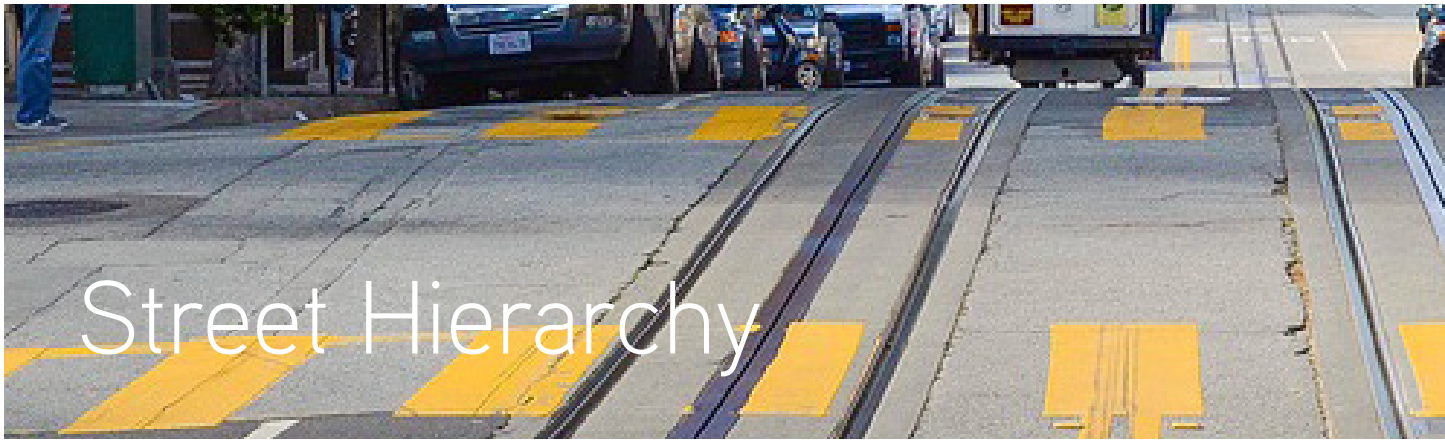
T5 URBAN / Moderate intensity, minimal setbacks, active ground floors on primary streets, most appropriate for multi-family residential.

SD (SPECIAL DISTRICT) / Most flexible, allows for research facility needs while promoting walkable urban development.



Urban Transect Diagram

A: OVERVIEW



Street Hierarchy

A hierarchy of streets organizes the district into a legible urban framework and creates pedestrian, bicycle and vehicular connectivity within and beyond the site.

The Development Framework Plan is structured around a network of streets which create the framework for the district. The streets provide connectivity in and out of the site, circulation within NeoCity, and subdivide the district into blocks for development. Each street has been assigned a level of hierarchy, either primary or secondary, according to the character of development intended in that area of the master plan and the needs of the roadway network. Accordingly, the transect zones described earlier each have specific requirements in certain categories, such as building frontage and setbacks, which correspond to the classification of the adjacent street.

Primary streets are intended have a comprehensive street section from ~100' - 110' that supports a comfortable pedestrian realm, facilitates safe bicycle movement, supports active building frontages, includes LID components, and allows for vehicular and transit connectivity throughout and beyond the site. Development is intended to be oriented to these streets most strongly, with minimal setbacks, more continuous building frontages, and more active uses occurring along these streets.

Secondary streets are intended have a street section of ~50' and still support a comfortable and safe experience for pedestrians and cyclists, providing internal connectivity and access to buildings and parking areas throughout the site. Development is intended to be oriented to these streets secondarily, providing strong street enclosure and comfortable pedestrian environments, while having more flexibility than along primary streets in terms of setbacks and frontage requirements.

PRIMARY / Comprehensive street providing multi-modal connection within and beyond the site.

SECONDARY / Support internal connectivity and access throughout the site.

PEDESTRIAN / A network of sidewalks, boardwalks, alleyways, and trails place a focus on pedestrian movement.

Additionally, the master plan has designed waterfront boardwalks, alleyways, and trails that add an additional level of granularity to the network. The Design Guidelines provide specific guidance for development adjacent to these elements where applicable.

Street Hierarchy Diagram

A: OVERVIEW

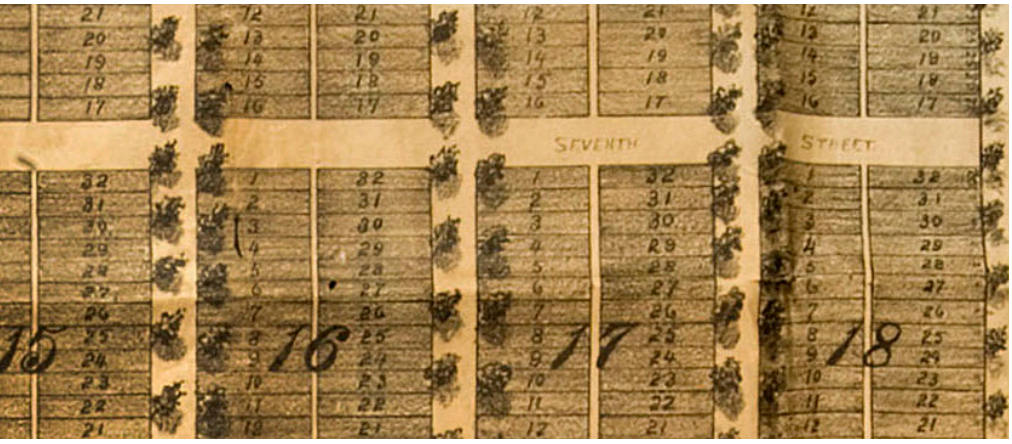
Parcelization

A compact and connected block structure provides a flexible development framework and walkable urban fabric.

The district is divided into blocks which represent the developable area of the Development Framework Plan. These blocks are generally ~400' along any one side, though these dimensions vary, especially where the site area meets adjacent property or a water body. The blocks have been designed to accommodate a wide range of development, and are not expected to be altered to a significant degree. Provision has been made for certain blocks that fall in the SD transect, such that certain blocks may be combined by removing a portion of a secondary street to accommodate a special requirement or unforeseen need of a prospective facility, with minimal impact on the overall connectivity of NeoCity.

The blocks are further subdivided into individual parcels within each block, typically ~30,000 square feet or less, although certain parcels exceed this threshold. These parcels provide the starting point for the conversation with prospective developers regarding the expected scale and specific requirements of any proposed building. Osceola County intends to promote urban-scaled development at NeoCity that uses available land efficiently, and as such should seek to encourage higher density buildings on smaller development footprints.

The Design Guidelines allow for the combination of multiple parcels for a single building or development. The combination of multiple parcels should only be allowed where the necessary square footage cannot be achieved on an individual lot, and should be limited to the fewest number of parcels possible to achieve the building program needed.

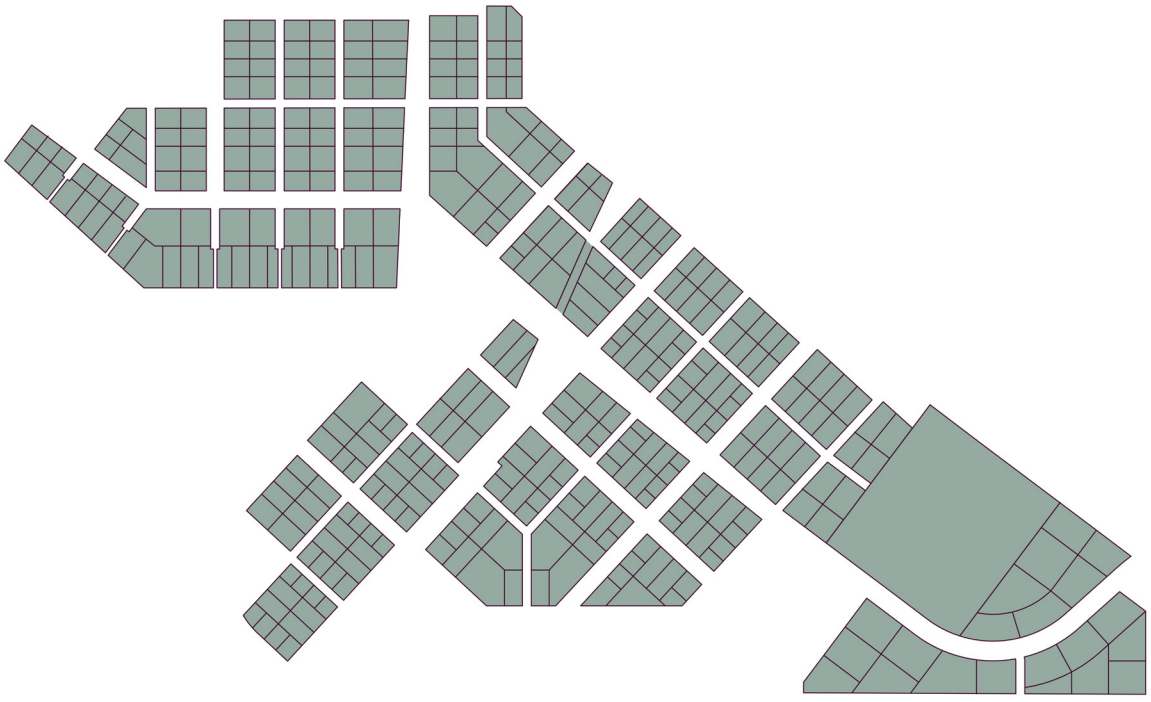


BLOCKS / urban block structure with typical lengths ~400' on any side.

PARCELS / lots are broken down into development parcels of varying sizes, typically less than 30,000 square feet.

DEVELOPMENT / may occur on multiple parcels, but should be limited to the smallest area necessary to achieve the building program.

Along with providing a baseline for determining the site area necessary for development, the parcel map provides an understanding of how proposed buildings will relate to the rest of the development, and what Design Guidelines will be applicable where a building fronts a primary or secondary street. This parcel map should be updated as development progresses; any necessary modifications should conform to the typical sizes and allow for appropriate street and alleyway access for all parcels. Detailed block and parcel areas are provided in Appendix 3: NeoCity Parcel Portfolio.



Parcel Diagram

B: LOT OCCUPATION

This section sets out details of maximums and minimums for lot coverage that comprise the developable area within any given lot or combined set of lots.

The blocks drawn in the master plan have been broken down into individual lots, generally between 30,000 and 50,000 sq ft, varying by individual block. The intent of this parcelization is to provide an urban structure for the development and require development interests to fit their building needs within this framework and contribute positively to creating the "sense of place" at NeoCity, in contrast to selling or leasing larger tracts that can be typical of traditional research park models.

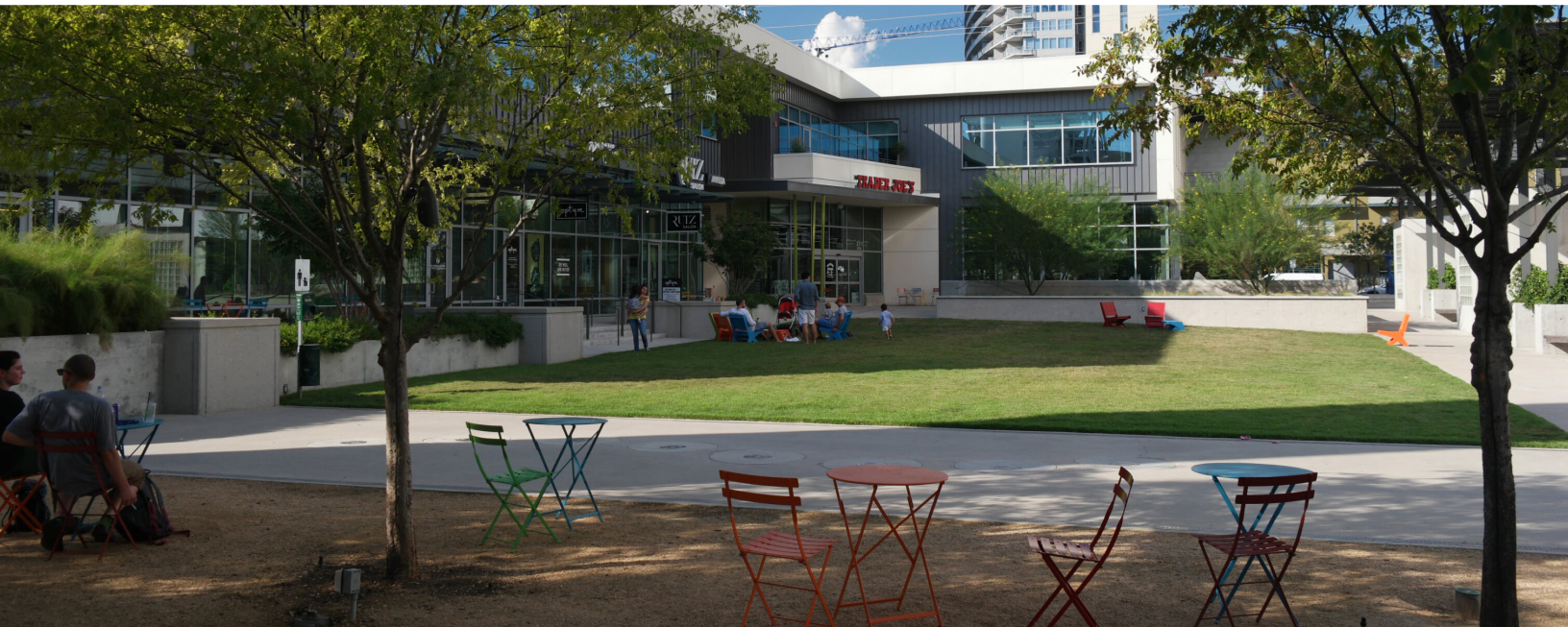
The lot breakdown provides for a level of granularity in the urban environment that encourages a variety of experiences, uses, and designs within the development. Combination of multiple lots is possible under this criteria, but development should take place on as few lots as possible to maximize site efficiency and overall development capacity. The following pages break down development requirements for how buildings must be laid out on the site, specifying developable area, building footprint and length, open space, setbacks, and parking location.

SETBACKS / buildings should front on the street network to support the public realm.

PARKING / parking structures fronting on the street network should employ screening and active uses.

LOT COVERAGE/ development may utilize the full lot, provided it meets other specified requirements.

USABLE OPEN SPACE/ small open spaces should be integrated into developments to supplement larger parks, plazas, and trail network.


TRADER JOE'S

B: LOT OCCUPATION

B.1 Lot Area + Coverage

Development must follow guidelines dictating developable area, footprint, length, and open space, which are at the foundation for compact and human-scaled urban development.

1. Lot Coverage

The stormwater management at NeoCity has been designed such that all of the developable parcels indicated in the master plan layout can be fully developed at 100% impervious cover. As such, there is no limit placed on the total lot coverage (occupiable buildings, parking, other covered surfaces), outside of other criteria in this section.

2. Building Footprint

The Form Based Code Table creates maximums for individual building footprint size that vary by transect. These maximums create the desired granularity of development throughout each transect, while providing for efficient building floor-plates for each district. The Special District transect contains the largest allowable footprint, meant to flexibly accommodate the needs of specialized research functions, while the T5 transect has the smallest allowable footprint to maintain the desired scale of development.

3. Building Length

Similar to building footprints, the Form Based Code Table lists, for each transect, a maximum building length, meant to create variation and porosity in development blocks.

4. Usable Open Space

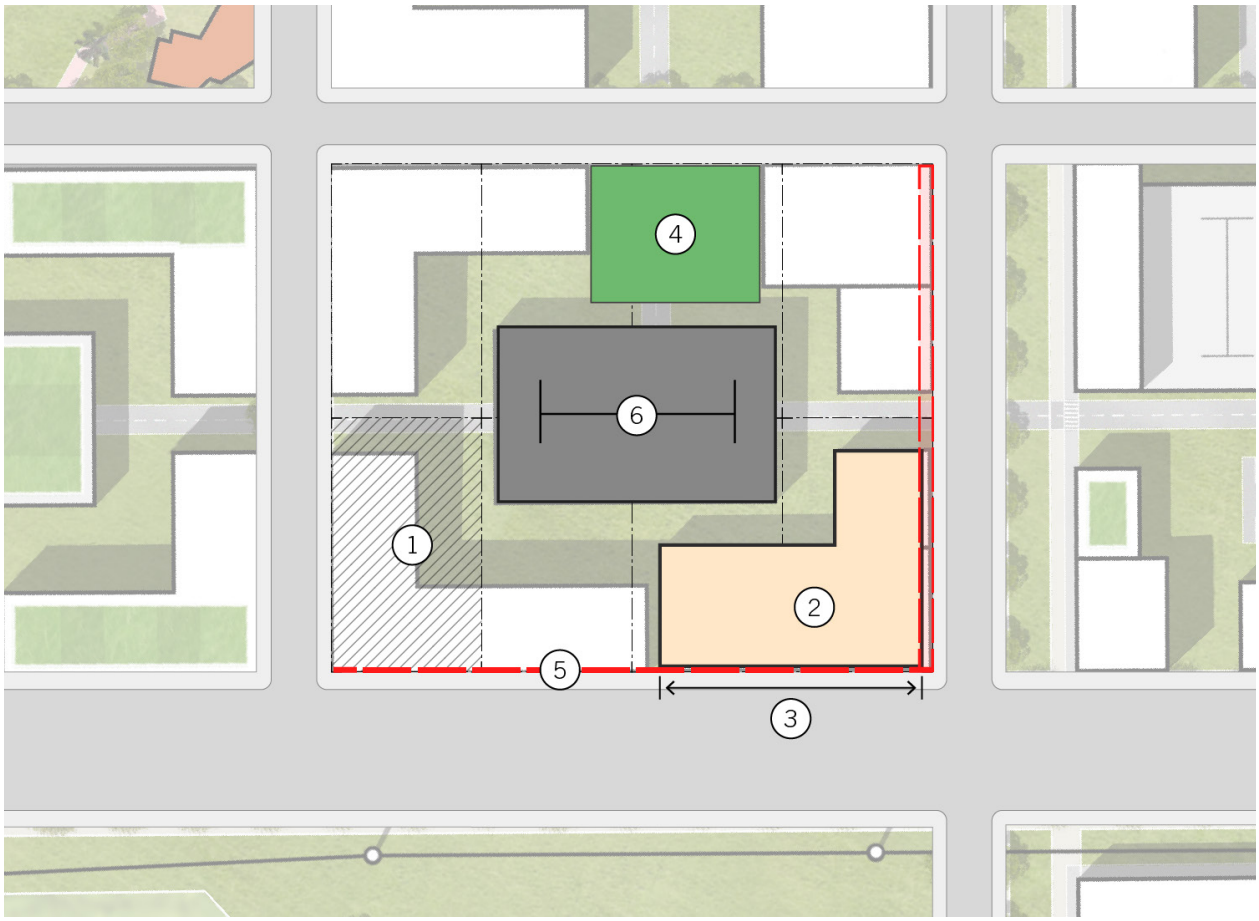
The master plan provides for several larger district and neighborhood-serving open spaces, as well as linear green spaces along several streets. Within each block, however, smaller public spaces are intended to be created. Developers are required to provide usable open space as a percentage of the development parcel, according to each transect. Required open space can be combined across multiple parcels on the same block to create one larger open space. Alternatively, developers may pay a fee-in-lieu, as defined by NeoCity CC&Rs.

5. Setbacks

Addressed in B.2 on following pages.

6. Parking

Addressed in B.3 on following pages.



Lot Coverage Diagram

B: LOT OCCUPATION

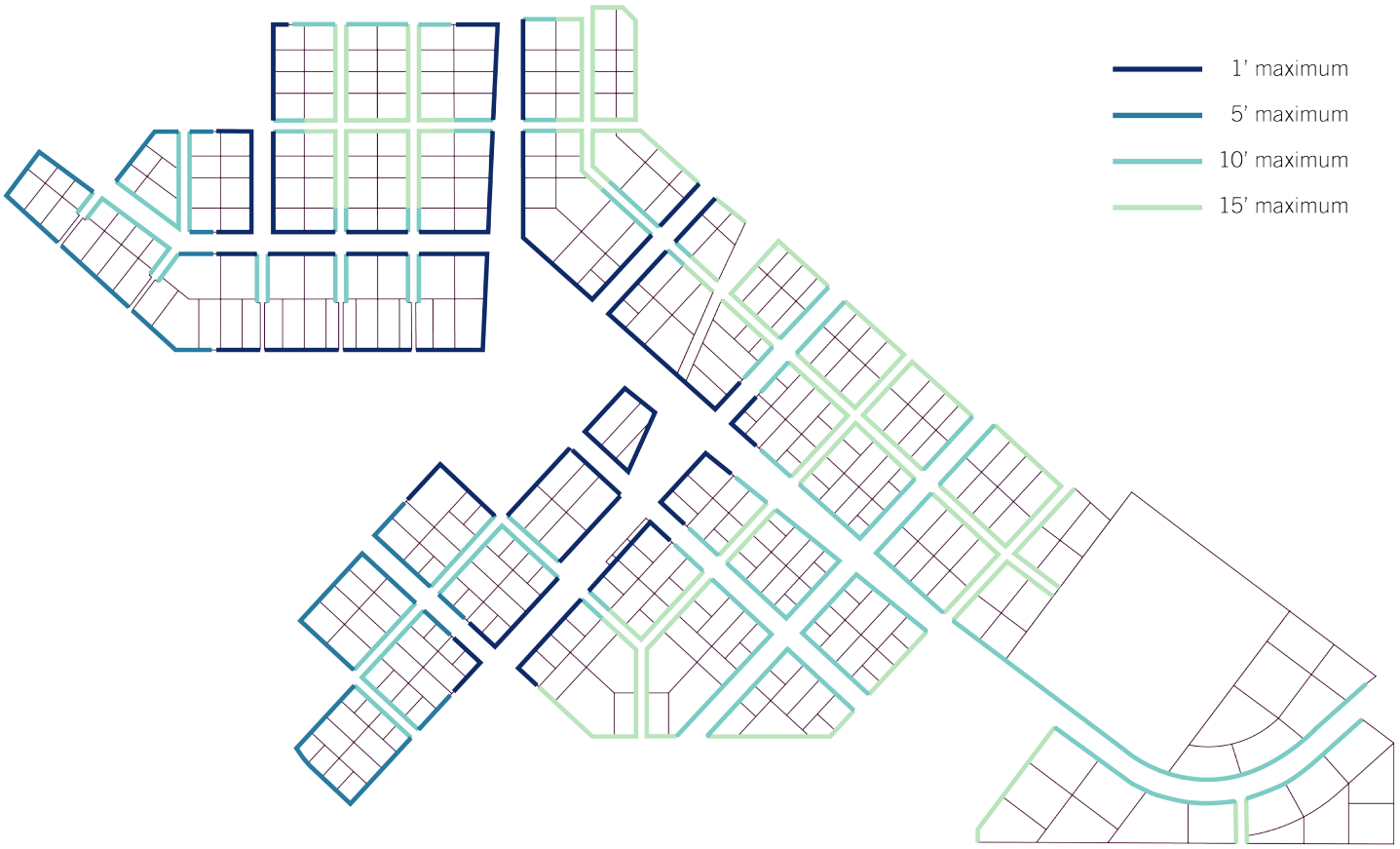
B.2 Setbacks

Building setback zones have been created along all streets, circulation network elements, and public spaces in order to promote walkability and an active public realm.

The Form Based Code Table states building setback minimums and maximums for each transect according to the classification of the street on which the building fronts, as identified in the street hierarchy diagram. While the minimums and maximums vary across transects, each standard is intended to promote walkability and active streets throughout the district.

The strictest setback requirements are in the T6 transect along primary streets, where a sense of enclosure and continuous street wall is most critical, while the most flexibility is provided in the SD transect to accommodate more specialized building needs. Additionally, further flexibility may be provided for buildings with enhanced security considerations within the SD transect; this security should be accomplished through building-level measures, rather than site-level measures, where at all possible. Fencing and gated entrances should be avoided.

Setback guidelines apply to all primary and secondary streets. Parcels facing on waterfront boardwalks, parkland, or pedestrian / bicycle infrastructure should be treated the same as primary streets.



Setback Diagram

B: LOT OCCUPATION

B.3 Parking

Parking is intended to be managed and created by a district-wide entity which will work to provide mobility options and limit parking demand. Where surface parking is provided, it should be discretely located, employ LID elements, and be designed with a view to replacement by structure parking or building footprints in the future.

Parking for NeoCity will be managed through a Mobility and Parking District agreement. Therefore, these Design Guidelines do not specify any standards for parking requirements as they apply to any individual development. Instead, the Mobility and Parking District will work to provide multi-modal transportation and mobility options and provide and manage parking with the intent to reduce parking need, improve site efficiency, and enhance the quality and walkability of NeoCity. Osceola County has parking requirements in place for the East 192 CRA which can be used as a guideline, however, the Mobility and Parking District should continuously monitor and evaluate parking demand based on implemented demand management strategies and actual occupant behavior. More details on the Parking Management District recommendations are included in Section 05: Implementation.

Where surface parking is constructed, it should employ landscape and shading devices to limit the heat island effect and increase pedestrian comfort. Green infrastructure treatments, such as permeable paving, bioswales, and rain gardens, should be implemented to reduce and treat stormwater runoff. Streets in NeoCity are intended to contain on-street parking along most blocks, which can supplement parking needs particularly for visitors and along retail oriented blocks.

Where parking structures front any street, they must adhere to the same guidelines for active use as spelled out in Section C, according to their specific transect and street classification. Parking structures without active frontages are not permitted along any primary street. Parking structures may be placed internally to the block behind the primary building in a manner that allows for future development along primary streets. Designing parking structures with level (non-sloping) floorplates allows for greater flexibility in future repurposing of the structure, should they become obsolete.

1 Parking garage with active ground floor, architectural screening, and distinctive entry element.

2 A distinctive parking structure can add architectural character to the urban environment.

3 Large parking structure with level floor plates and architectural screening.

4 Surface parking lots can employ green infrastructure to beautify the area, minimize heat island effect, and manage stormwater.

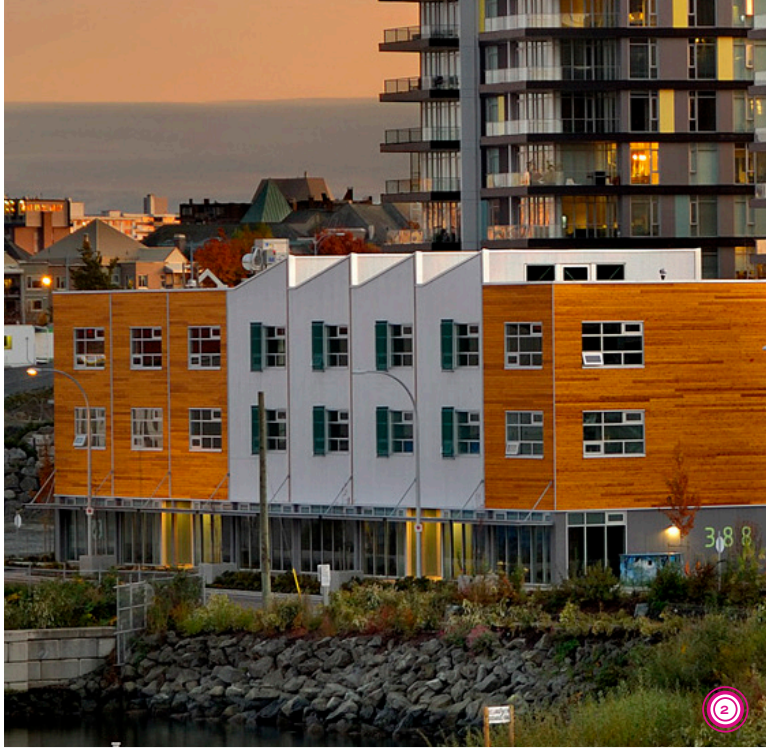
C: DEVELOPMENT SCALE

NeoCity is intended to have an urban scale of development throughout the district, with comfortably scaled buildings at moderate but efficient densities. Owing to the site occupation standards in the previous section, as well as district-level management approach to stormwater and parking, more development density of occupiable floor space is anticipated without an overwhelming scale of development. The intent of these standards is to create efficient development, responsible use of available land, and a development intensity that supports a diverse mix of uses that could not be sustained through lower density development.

This section creates guidelines for minimum and maximum development intensity. Building density is guided in each transect by a floor area ratio (FAR) range with a maximum and minimum value, or with a dwelling unit per acre (DU/Ac) maximum and minimum value in the case of residential. These ranges are meant to guide scale and intensity of development but are subservient to other criteria; where FAR conflicts with building height, lot occupation, or setback requirements, those requirements should take precedence over FAR.

This section also provides guidance on scale in the form of building height minimums and maximums. The form based code table provides specific requirements by transect, but it should be noted that single story buildings are not permitted in any portion of NeoCity. Special exceptions to this standard may be made for special use buildings, such as small pavilions, sales offices, and kiosks or buildings needed for specialized storage or utility.

1. A mid rise building with research and office functions.
2. Row house style housing along a rip-rap waterfront edge.
3. 7-8 story building at the upper end of appropriate heights for the district.
4. Mixed-use mid-rise development with building step backs on upper levels.
5. Development at the lower end of the intensity scale.
6. Four story residential density appropriate for the district.



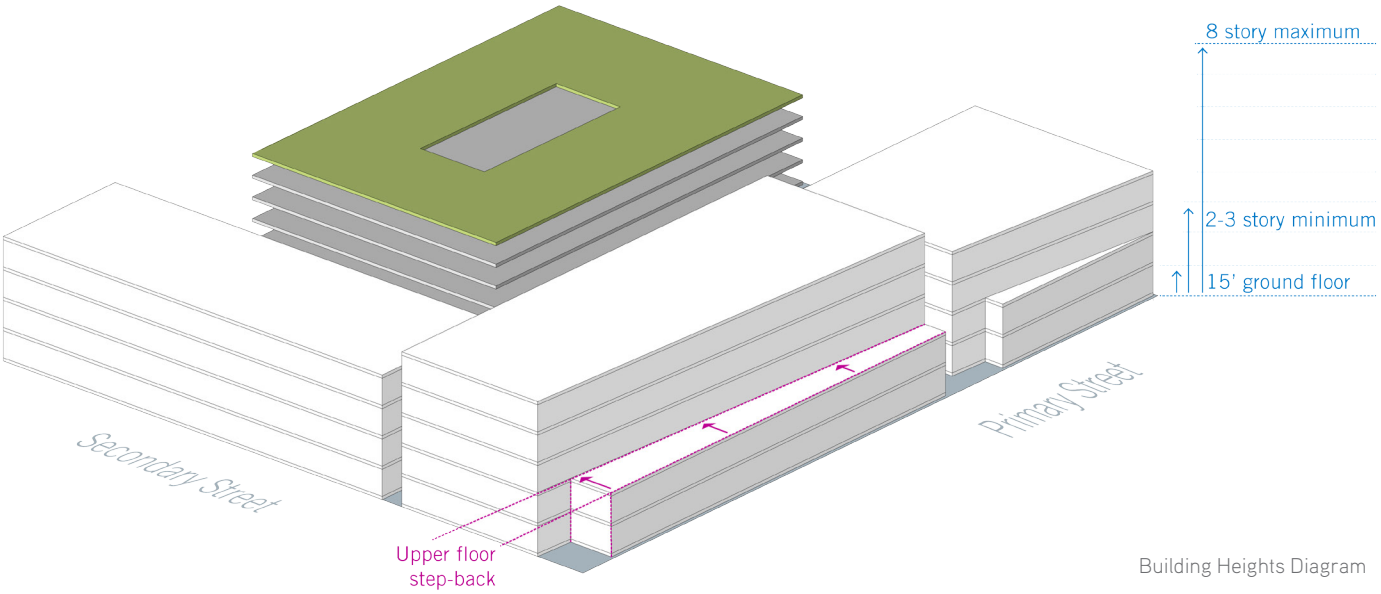
C: DEVELOPMENT SCALE

C.1 Building Heights

Minimum and maximum building heights have been established across all transects to guide the desired scale and massing of development.

Building height is a critical component in ensuring that land is efficiently used and that Osceola County maximizes the return on the investments that have been made at NeoCity. There are far-reaching benefits from ensuring a minimum density and minimum building height, including sense of enclosure, increased safety via eyes on the street, and shade during the hotter months from buildings and shade structures.

Along with height minimums and maximums, additional standards relating to floor heights and upper floor setbacks are included within these guidelines and set out in the form based code table according to transect. The first floors of all buildings are set at a minimum height of 15' across all transects to support a flexibility in uses, so that as the district evolves buildings may be adapted to changing and unpredicted occupants.



Building Heights Diagram

C: DEVELOPMENT SCALE

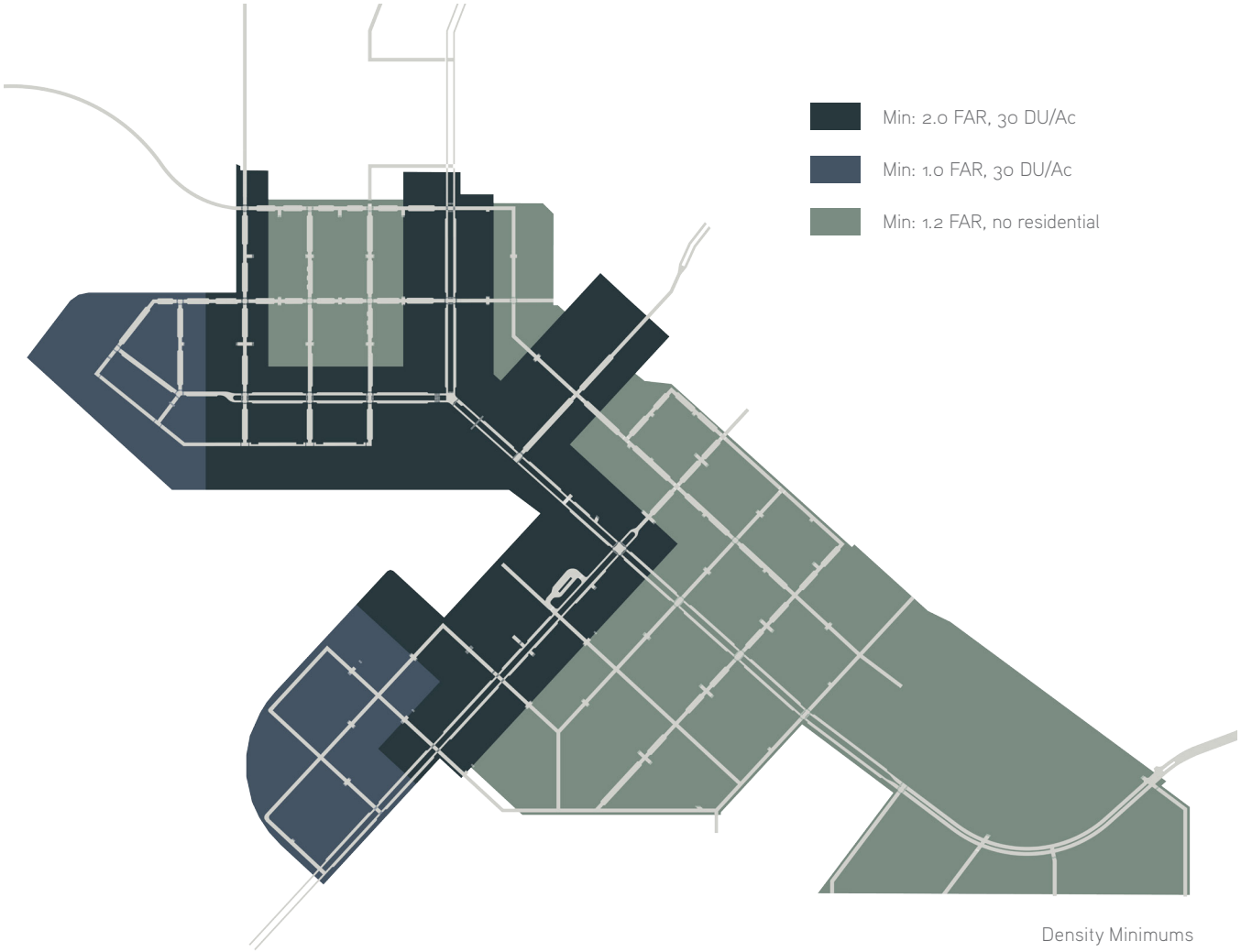
C.2 Density

Minimum levels of density are required across all transects to support efficient use of land, desirable building typologies, and baseline development density in all parts of the site.

In addition to height and step-back requirements, building volumes are defined by Floor Area Ratio (FAR) and Dwelling Units per Acre (DU/Ac) minimums established in the form based code table. These measures of density establish minimum acceptable requirements for development within each transect, and ensure a baseline density across the site.

By including an FAR value in addition to other massing requirements, the Design Guidelines are able to ensure minimum development floor space within each transect. While other criteria guide the positioning and form of the building on the site, the FAR requirement establishes the minimum building mass which must be developed within these other requirements. The FAR is a minimum value for each individual parcel, and development is encouraged to exceed this baseline while conforming to other design guideline criteria. Its inclusion is not intended to lead the design, but rather to create a level of density across the site that supports efficient development, diverse uses, and an active environment.

Where residential development is allowed (T_5 and T6) the minimum density is 30 DU/Ac. This eliminates lower density development types such as single-family homes and duplexes, but would allow for attached row houses and lofts at a moderate density at this minimum level. Other anticipated development types would include stacked row houses or flats of 3-4 stories, or mid-rise residential between 5-8 stories.



Density Minimums

D: BUILDINGS

The detail of how a building responds to the street is a critical element in achieving an active and vibrant urban area. Buildings which have blank or inactive facades dissuade users from walking, don't support active and healthy lifestyles, and impact the potential for revenue generation for small businesses that thrive on foot traffic.

NeoCity will be a creative and forward thinking development. As such, prescriptive regulations on architectural design and style are not part of the Design Guidelines. Instead a focus is placed on structural or framework elements which create a positive relationship between buildings and the public realm, inspiring high quality architectural response, with creativity and flare that brings the innovation from within the building to the people and spaces outside the building.

1. Active ground floor uses along a pedestrian plaza.
2. Glazing at ground level allows interaction between interior and exterior realm, activating the street.
3. Signage and wayfinding integrated into the public realm and building architecture.
4. Active ground level in a mixed-use building.
5. Street trees and vegetated screening create a comfortable environment for pedestrians


FIRST NATIONS
INDUSTRY

1


ORILLIA PUBLIC LIBRARY

2


1621

3


BLENZ COFFEE
OPEN
BLENZ
3D EVENT

4

5

D: BUILDINGS

D.1 Frontages

Building frontages should orient to adjacent streets and be designed to frame public spaces and streets, creating a consistent street wall enclosure and comfortable public realm.

Building Frontage

Each building must be designed such that it fronts on the street according to the percentages dictated in the form based code table, according to its street hierarchy and transect category. The percentages indicate the total amount of the building frontage which must be located within the setback area along the street network in order to meet this criteria. Other portions of the lot line along the street network may be set back beyond this area or left unbuilt.

Bay Width + Façade Jog

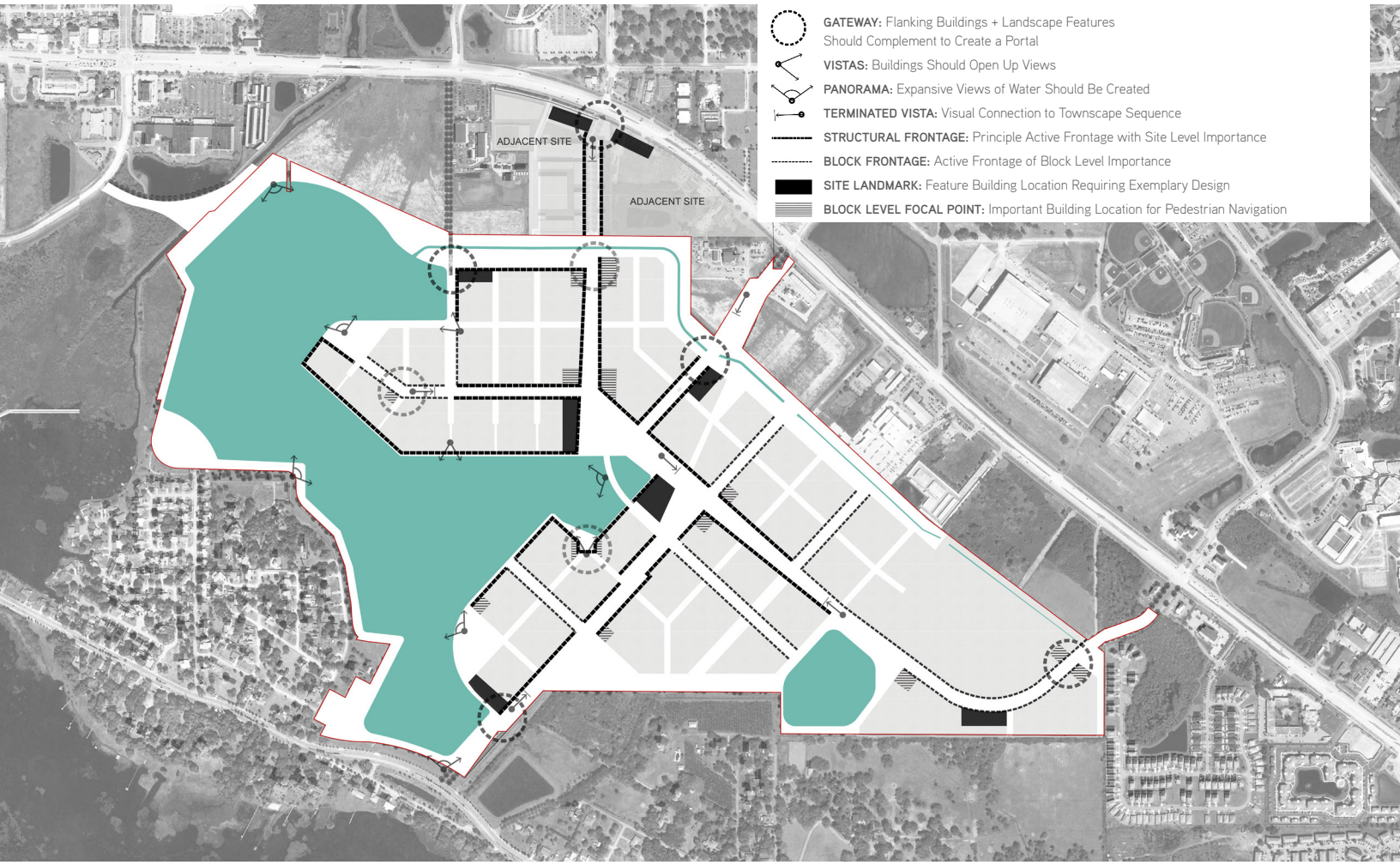
Buildings should contain articulation and differentiation along the length of their frontages to create rhythm, visual interest, and support pedestrian activity. In order to foster creativity and flexibility in design, no specific restrictive standards have been included in the Design Guidelines. Buildings should avoid monotonous frontages by employing use of pattern, color, material changes, fenestration, small jogs from main building line, and other architectural detailing proportionate to the scale of the overall frontage.

Blank Walls

No building should have a blank wall longer than 50' or 30% of any building façade along a street network, whichever is less.

Materials

No specific material requirements are indicated in the form based code table. However, buildings must comply with active use requirements listed in D.2 and glazing which is not overly opaque or reflective should be used to allow visual connections between indoor and outdoor spaces, .


ADJACENT SITE
ADJACENT SITE
GATEWAY: Flanking Buildings + Landscape Features Should Complement to Create a Portal
VISTAS: Buildings Should Open Up Views
PANORAMA: Expansive Views of Water Should Be Created
TERMINATED VISTA: Visual Connection to Townscape Sequence
STRUCTURAL FRONTAGE: Principle Active Frontage with Site Level Importance
BLOCK FRONTAGE: Active Frontage of Block Level Importance
SITE LANDMARK: Feature Building Location Requiring Exemplary Design
BLOCK LEVEL FOCAL POINT: Important Building Location for Pedestrian Navigation

D: BUILDINGS

D.2 Active Uses

Buildings should incorporate active uses and other design elements at ground level to encourage pedestrian activity, visual interest, and relationships between indoor and outdoor space.

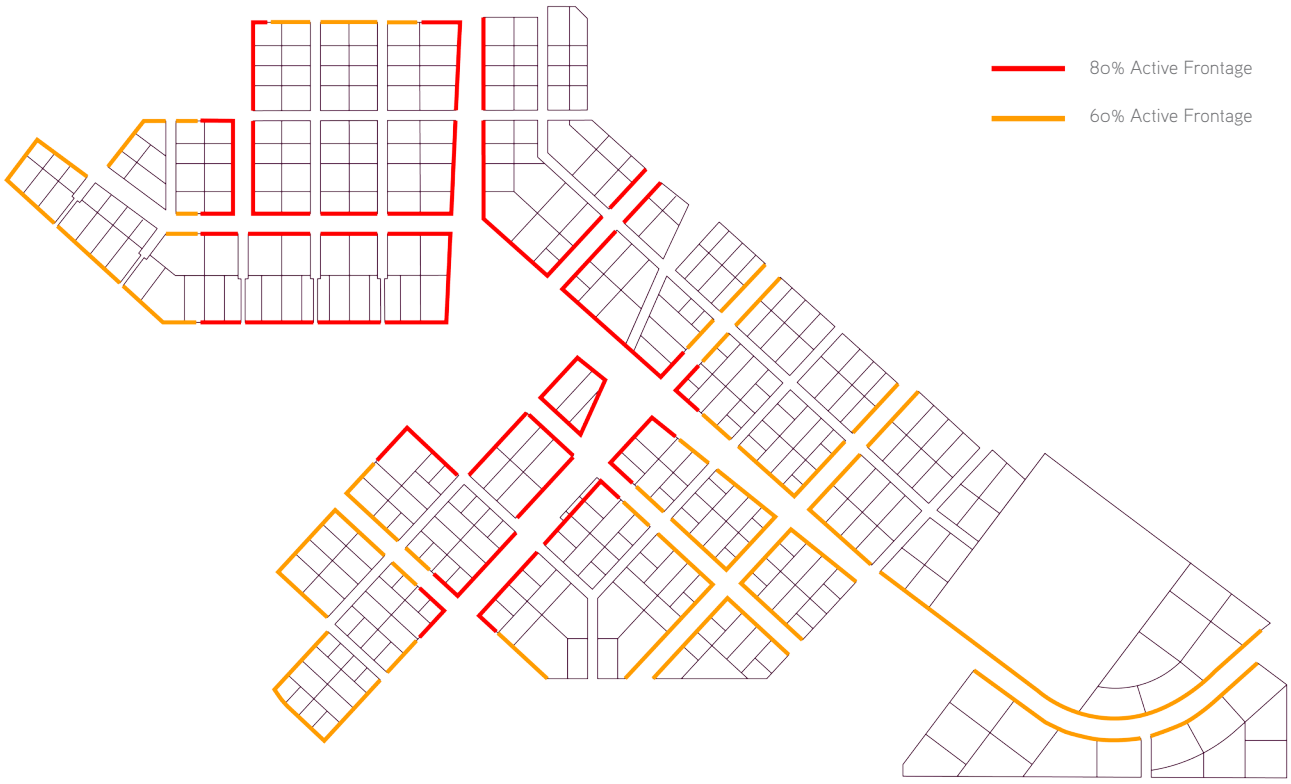
Buildings throughout NeoCity are expected to have active ground floors. Ground level active uses, frequency of building entrances, and visual connections between indoor and outdoor spaces help create a walkable urban environment.

The Form Based Code Table specifies a minimum percentage of building frontage where ground floor active uses are required in designated areas of the plan, outlined in the Active Use diagram on the adjacent page. These active frontages are designated along primary streets, waterfront areas and park blocks, with percentage required corresponding to the transect overlay. Buildings in T6 along these designated blocks are required to have an 80% active frontage, while buildings in T5 and SD transects are required to have 60%.

For the purposes of these Design Guidelines, "Active Use" is broadly defined. NeoCity seeks a diverse mix of uses including retail activity, but the development will need to meet a critical capacity before it will support significant retail floor space. Therefore, "Active Use" is not only intended as ground floor retail space but could also be identified as, but not limited to, the following:

- Ground floor office space with visual connection to the street along this frontage;
- Residential blocks with building entrances spaces with high frequency along the pedestrian network;
- Cafes, bars, and restaurants which are open and accessible to the public;
- Retail shops for convenience or comparison shopping, but are typically of a downtown scale smaller than 10,000 square feet;
- Pavilions and exhibit spaces, which operate events or exhibits on a full time or regular basis of a minimum of once a week;
- Maker spaces and workshop space which is open to the public;
- Gyms and fitness centers which are open to the public; and,
- Information centers and other civic uses.

Further discussion on uses within NeoCity is contained in Section 05: Implementation.



Active Uses

D: BUILDINGS

D.3 Entrances

Primary building entrances should front on the circulation network at frequent intervals to support an active pedestrian realm.

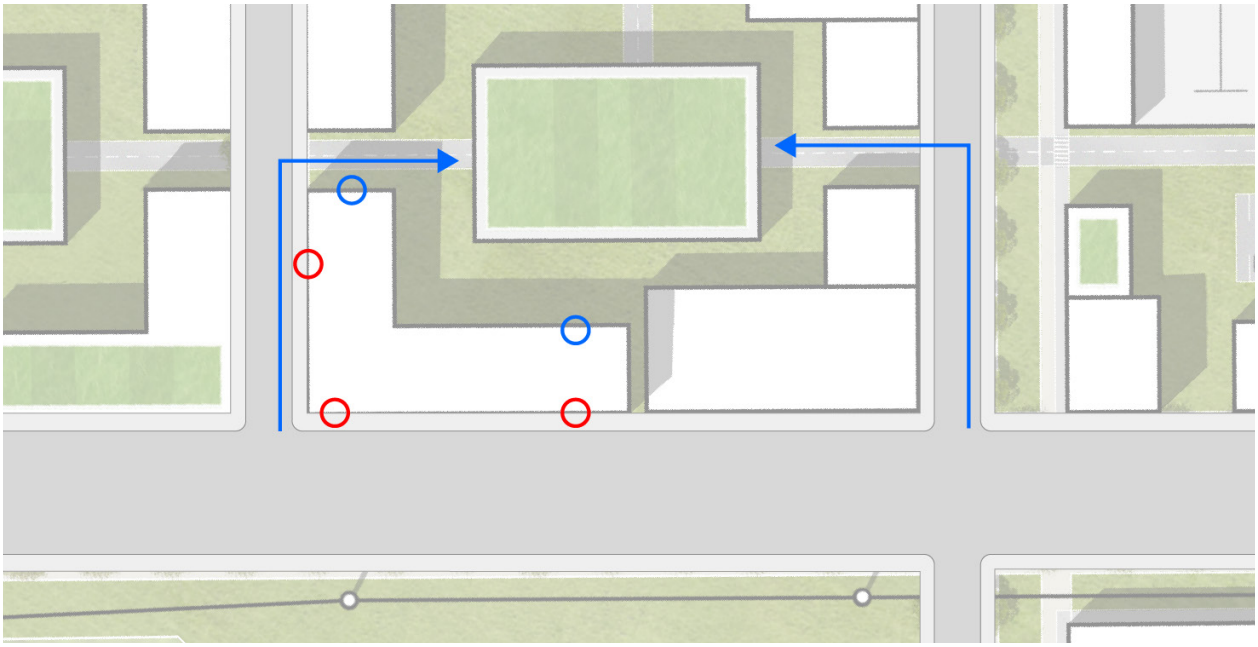
Primary building entrances should be designed with direct access to the sidewalk facing the circulation network. Primary entrances may also orient onto a public space or small plaza with direct connection to the pedestrian circulation network. Primary building entrances should not face on to parking lots.

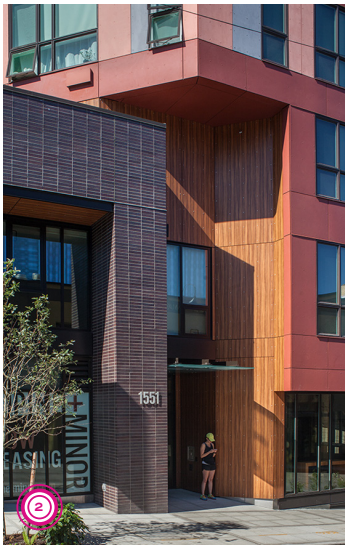
Other functional entrances to the rear of buildings may face internal open spaces, parking lots with pedestrian connectivity, unattached parking structures with pedestrian connectivity, or attached parking structures with direct entrances into the building.

To provide flexibility in building design to meet varied and unanticipated uses, no fixed standards on spacing of entrances on to the circulation network have been established. Entrances should be spaced frequently and prioritize street facing pedestrian networks as much as possible. Retail frontages should have the most frequent spacing, followed by residential, mixed use, and office. Research buildings should also consider frequent entry spacing onto the circulation network, but may have other programmatic needs that must be prioritized.

primary entrance at street
secondary entrance interior to block
vehicular access on secondary street

Building Entrances and Drives





1 Building entrance on a small public space connected to the circulation network, identified by change in color and material in multi-story volume.

2 Primary building entrance directly on circulation network, articulated by change of materials and multi-story vertical void behind main building line.

3 Retail entrances should occur frequently along the pedestrian circulation network or onto public spaces, not on parking lots.

E: FORM BASED CODE TABLE

The table included below defines the applicable design criteria which developments must meet. Each category below corresponds to the sections preceding this table, which provide more descriptive and illustrative guidance on the intent of these criteria. Variance from these criteria may be available with approval of the NeoCity Board of Governors in special circumstances.

Criteria	T5 Proposed	T6 Proposed	SD Proposed	Notes
1.1 Lot Occupation	**Lot Occupation**	**Lot Occupation**	**Lot Occupation**	
a. *Lot Area* [1]	Defined in parcel map	Defined in parcel map	Defined in parcel map	(1) Sizes vary by transect but ar
b. *Lot width* [2]	Defined in parcel map	Defined in parcel map	Defined in parcel map	(2) Lots sizes are designed to er
c. *Lot Coverage* [3]	100% max	100% max	100% max	(3) The entire lot may be includ
d. *Building footprint*	30,000 GSF max	50,000 GSF max	125,000 GSF max	
e. *Building length* [4]	175' max	225' max	500'	(4) Maximum length without bre
f. *Usable Open Space* [5]	10% total lot area	5% total lot area	10% total lot area	(5) Applies to developer's comb alternative provision for space w
1.2 Building Set Back	**Building Set Back**	**Building Set Back**	**Building Set Back**	
a. *Primary* [6][7]	0' min, 5' max	0' min, 1' max	0' min, 10' max [8]	(6) Setback applies to first and
b. *Secondary* [6][7]	0' min, 10' max	0' min, 10' max	0' min, 15' max [8]	(7) Setback zone applies to amc
c. *Side of lot*	No fixed standard	No fixed standard	No fixed standard [8][9]	(8) Uses which require DOD or s
d. *Rear of lot*	No fixed standard	No fixed standard	No fixed standard [8][9]	(9) 10' setback from T6 and T5
e. *Public Space / Greenway*	None requried	None required	None required	
1.3 Parking [4]	**Parking**	**Parking**	**Parking**	
a. *Surface parking setback* [10]	7' from ROW	7' from ROW	7' from ROW	(10) Parking should be set back
b. *Trees* [11]	40% shaded	40% shaded	40% shaded	(11) Shading percentage at time
c. *Green infrastructure* [12]	No fixed standard	No fixed standard	No fixed standard	(12) Green infrastructure to mar
2.1 Building Height	**Building Height**	**Building Height**	**Building Height**	
a. *Minimum Height*	2 floors	3 floors	2 floors	
b. *Maximum Height*	8 floors	8 floors	8 floors	
c. *Upper Floor Step Back*	Allowed above 2nd	Allowed above 2nd	Allowed above 2nd	
d. *Ground Floor Height* [13]	15' min	15' min	15' min	(13) Measurement from floor of
e. *Other Floor Heights*	No fixed standard	No fixed standard	No fixed standard	
2.2 Density	**Density**	**Density**	**Density**	
a. *FAR (Gross)*	1.0 min	2.0 min	1.2 min	
b. *Residential (du/ac)*	30 du/ac min	30 du/ac min	No residential	
3.1 Frontage	**Frontage**	**Frontage**	**Frontage**	
a. *Frontage* [14]	70% min	80% min	60% min	(14) This critera designates the
b. *Façade 'Jog'* [15]	No fixed standard	No fixed standard	No fixed standard	(15) Horizontal articulation of th
c. *Bay Width* [16]	No fixed standard	No fixed standard	No fixed standard	(16) The appearance of "bays" a
d. *Vertical*	No fixed standard	No fixed standard	No fixed standard	
e. *Materials* [17]	No fixed standard	No fixed standard	No fixed standard	(17) An architectural pallette fo
f. *Blank wall to street* [18]	<50' or 40%	<50' or 40%	<50' or 40%	(18) Buildings may not have any
3.2 Active Uses	**Active Uses**	**Active Uses**	**Active Uses**	
a. *Principal Streets*	60% of façade	80% of façade	60% of façade	
b. *Secondary Streets*	No fixed standard	No fixed standard	No fixed standard	
c. *Waterfront and Parks*	60% of façade	80% of façade	60% of façade	
3.3 Building Entrances	**Building Entrances**	**Building Entrances**	**Building Entrances**	
a. *Location* [19]	Main Entry at Street	Main Entry at Street	Main Entry at Street	(19) Main entrance must open o
b. *Entrance Spacing*	No fixed standard	No fixed standard	No fixed standard	
c. *Driveway Spacing* [20]	2 max per block	2 max per block	2 max per block	(20) No more than two curb cut
d. *Driveway Width*	22' max width (entry and exit)	22' max width (entry and exit)	30' max width (entry and exit)	

e generally ~30,000 sf, with a number of larger parcels available. Adjacent parcels may be combined to form larger where necessary, though vertical density is encouraged before combining parcels.

ncourage more individual buildings and tenants per block, increasing granularity and diversity of development along any given block length.

ed in the development footprint. Stormwater management has been calculated on a district level to allow for this level of impervious cover.

eak for street, alley, or pedestrian path.

ined lot ownership. Open space is defined as usable and accessible to the public, including seating and landscape features. Options include payment in lieu up to 100% of the space for community greenspace or negotiated ithin the block.

second floor, setback third floor and above is defined under Building Height

ount of frontage dictated in 3.1-a

similar security measures may set back a maximum of 60' from the lot boundary providing security measures are integrated into a street scape improvement landscape design.

should be created as a buffer where SD abuts these zones.

from circulation network to allow for landsape buffer and tree planting zone.

e of tree maturity. Does not apply to loading areas.

nage, treat, store, and re-use stormwater is highly encouraged in both surface and structured parking.

ground level to floor of second level. Design should allow retail/commercial use as part of original design or through retrofit with ADA accessible entrances storefront windows.

amount of building frontage which must fall within designated setback zone. Percentage applies to primary frontage of building.

he building envelope toward and away from the circulation network along its length is encouraged, but no standard distance is applied.

long a single building is meant to break up a façade into apparent smaller dimensions. This can be desirable along retail and residentail blocks especially, however no fixed standard is applied.

llows this section as a set of guidelines and recommendations, but no specific materials are required or prohibited.

y continuous length greater that 50' or 40% of total façade which is left blank facing the street network.

on to sidewalk or public plaza accessed from primary circulation network. Main entry may not be accessed through parking lot, garage, or interior to the block.

s for driveways allowed along any block segment.

PART 3:

ARCHITECTURAL + LANDSCAPE PALETTE

A: ARCHITECTURAL PALETTE

B: LANDSCAPE PALETTE

C: SIGNAGE + WAYFINDING

Part 3 of the Design Guidelines covers architectural and landscape palette. This section departs from the prescription of requirements and instead identifies imagery and ideas which have helped inform and illustrate the design intent of the NeoCity Master Plan.

These example projects pull from a wide diversity of existing buildings and of available plant and hardscape materials which have been selected for their appropriateness to the NeoCity district. Both the County and future developers within NeoCity should refer to these palettes for identifying potential styles and materials at the design stages of development projects.

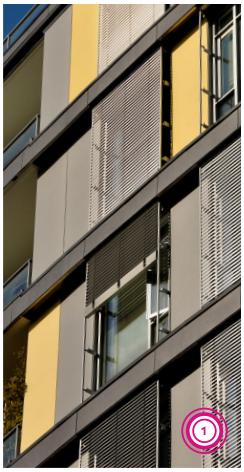
The Signage + Wayfinding for NeoCity is to be choreographed as part of the overall branding strategy for the district. As with the streetscape, landscape, and architectural palette, signage and wayfinding can contribute to a cohesive whole. This section includes a recommended hierarchy for wayfinding, a palette of sign types, and example imagery to assist in creating and implementing a wayfinding strategy.

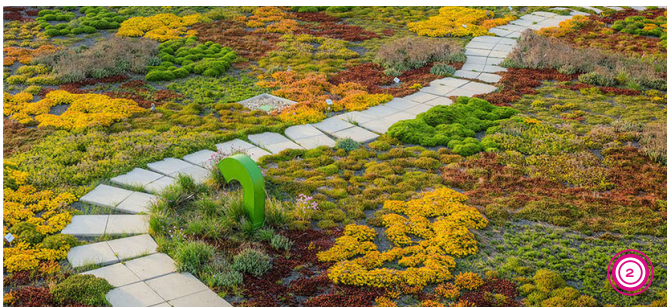
Materials, textures, colors, and shades form the subtle differences that bring a place to life and that embed an air of continuity and cohesiveness to the urban realm.

A: ARCHITECTURAL PALETTE

This architectural palette section provides inspiration and design direction for development within NeoCity which will fulfill the vision of Osceola County. These design features are not a prerequisite for future developments but incorporation of these elements as a base palette will provide consistency and continuity across the development, adding to the long-term identity of NeoCity.

1. Louvers and solar shades.
2. Green walls, roofs, and integrated planting.
3. Material use including sustainable sourced wood and metal cladding.
4. Glazed atrium entrance spaces and breezeways





B: LANDSCAPE PALETTE

Landscape and open space standards have been set at the parcel level to provide quality public spaces throughout the development, with the landscape palette provides guidance on streetscape, furniture, fixtures, and planting.

Parcel Level Open Space Requirements

The form based code requires open space to be provided at a parcel level. This varies based on the location of the parcel in either transect T5, T6, or SD. The open space amount corresponds with the typology of that specific location within NeoCity and provides a subtle variation in the built form which reinforces the logic of the framework.

Developers building on multiple adjacent parcels are permitted to combine the open space provision to provide a single open space location within the combined parcel development.

Private open space design will be required to meet the quality expectations of the County and the design intent of the Master Plan. It should be design to foster collaboration and integration of industry, academic, and community partners following the lead of the rest of the Master Plan. Where spaces are intended solely for private uses these spaces should be located on rooftops or internal to the property, allowing all spaces visible from the public right of way to be accessible and usable by the public, providing connections between streets and buildings.

Benches, Seats and Platforms

A fundamental aspect to the NeoCity Master Plan is the intention to create spaces and places that inspire interaction and collaboration, incidental meetings, and passing greetings. In order to facilitate that a range of opportunities should be provided for lingering in the public realm. The diversity in types of spaces and furniture for this purpose speaks to the need to allow an element of personalization or ownership of the user to the space, appealing to the millennial culture of wanting to define the parameters of the world surrounding you: be that reconfiguration of chairs, or adaptation of statues, plinths and other non-traditional seating areas for informal gathering.

1 Movable metal chairs

2 Metal Benches

3 Pre-cast Benches

4 Seating platforms

Images provided by GAI Community Solutions Group

B: LANDSCAPE PALETTE

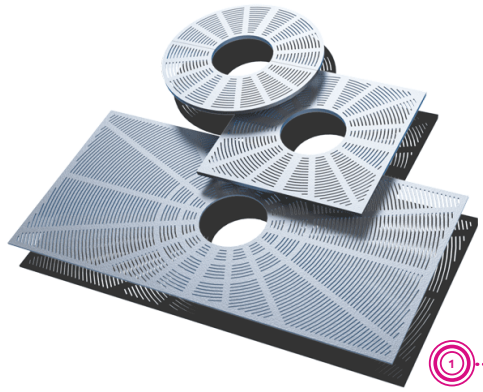
1. Feature bike rack design
2. Integrated bollard lights
3. Subtle design trash receptacles

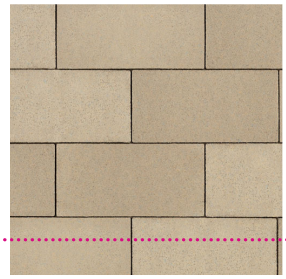
Streetscape furniture strategy

The design of the NeoCity streetscape must build on the design intent of the entire Master Plan. It is the daily experience that will set aside this place from any previous development within the County or even the region. Particularly with the early phases, due to the limited number of buildings and site landscape, there is a need to commit to creating a high quality street setting through street furniture to set the tone for future development.

Exploration of pilot typologies of street furniture should also be encouraged, including photo-voltaic lighting, power and wifi enabled benches, and underground compression trash receptacles.

Images provided by GAI Community Solutions Group





Hardscape palette

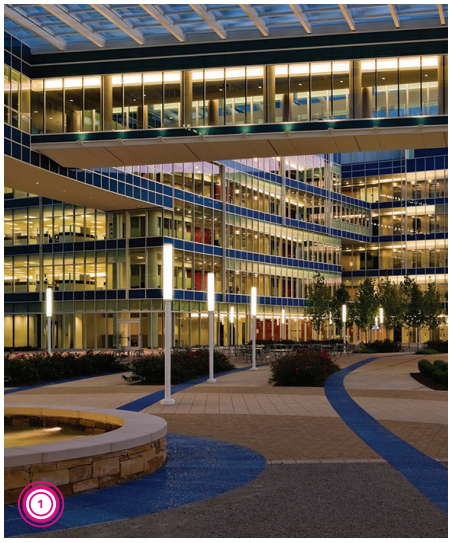
A hardscape palette which is simple and clean allows for flexibility in cost approaches while maintaining the overall character of the streetscape.

1. Tree Grates
2. Paving - Concrete / Concrete Pavers / Aggregate
3. ADA compliant tactile paving

Images provided by GAI Community Solutions Group

B: LANDSCAPE PALETTE







1. Pedestrian space lighting
2. Combined pedestrian and vehicle lighting in shared space
3. Character lighting
4. Building Lighting
5. Branding materials on street light poles

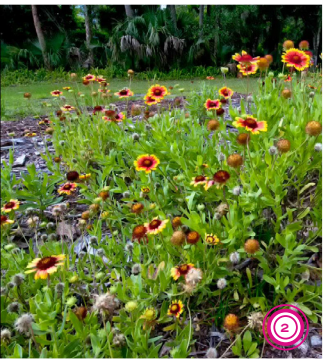
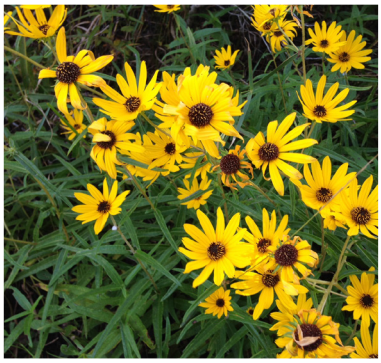
Lighting

Lighting is one of the most critical components of a streetscape due to the impression it creates during day and night time hours. Lighting is critical to a place feeling safe and secure, attracting and supporting evening activity and the 18-hour economy provided by bars and restaurants.

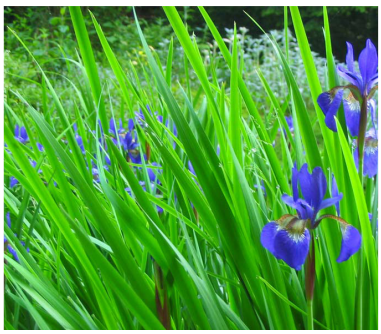
Images provided by GAI Community Solutions Group

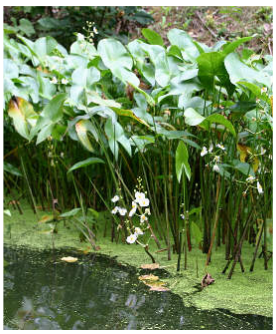











Grasses / Wild Flowers / Aquatics

Local native grasses and wildflowers add texture, movement, seasonal color and change to the landscape with minimal maintenance requirements. Use of grasses should be integrated into landscape designs with large simple geometric groupings creating LID components and structural order yet contrasting their natural character with linear streetscape and space features.

Aquatics should be introduced into linear parks and streetscapes which feature water and where appropriate, included in pond edge treatments within the neighborhood parks.

1. Native grasses
2. Native wildflowers (annuals / perennials)
3. Native aquatics and pond edge treatments

Images provided by GAI Community Solutions Group

B: LANDSCAPE PALETTE

Groundcover

Shrubs

Shrubs / Groundcover

Native plant species should be used whenever possible. Building level landscapes should include shrubs to delineate edges and pathways and anchor building foundations to the site. A variety of native groundcover plants are encouraged, avoiding the use of lawns unless intended for a specific activity or purpose.

Images provided by GAI Community Solutions Group








Trees

In order to provide seasonal variation and moments of color within the streetscape, judicious use of flowering trees is recommended. These should be coordinated with the urban design framework to reinforce the hierarchy of the public realm with the greatest detail and color being added to those locations which have an active or civic function.

Street trees should be used for shade along sidewalks and palms should be identified for locations where they can add a sculptural dimension to a development in coordination with the building design.

Images provided by GAI Community Solutions Group

C: SIGNAGE + WAYFINDING

Signage + Wayfinding

Wayfinding, as well as being a navigation tool, forms a critical component in the overall branding and messaging for the district. This approach embeds the design intent of the master plan and streetscapes directly into the wayfinding elements, further distinguishing the district within Osceola County and the wider urban context of Orlando.

The master plan recommends that detailed design of wayfinding and branding within the following hierarchy should be established tying into the long-term vision.

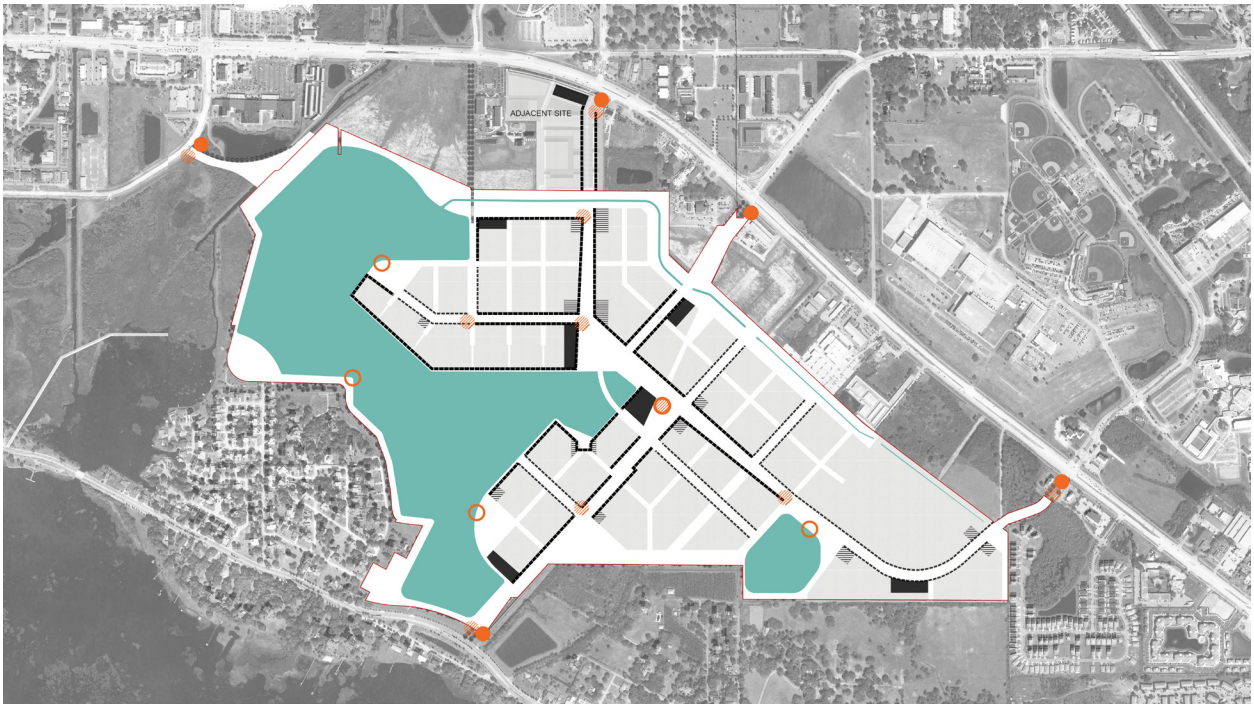
Type 1: Main Entrance Gateways
Type 2: Building Entrances (driveway and pedestrian entrances)
Type 3: Street Name Signage
Type 4: Pedestrian Directory / Wayfinding
Type 5: Branded Bike Racks
Type 6: Vehicular Directional

In addition, interactive and informational signage which provides more than just wayfinding should be incorporated within NeoCity. These elements fall in two distinct categories:

Interactive Wayfinding Kiosk - accessibility to real-time data and information is an important component of ensuring that the NeoCity embedded technologies are equitable for all users. A central location or network of interactive kiosks could be used to trial run new methods of predicting user interests and information based on past preference. The ideal initial location for this type of kiosk would be within the transit hub.

Educational/Feature Signage - NeoCity has a story to tell. Embedding that story in accessible passive information points would allow for improved interpretation of the site and the regional and global significance of the district and its development. Ideal locations for these signs would be around the pond edge and along trail routes.

NeoCity Wayfinding and Signage Location Diagram



- **NEOCITY BRAND SIGNAGE:** Signage within CRA Requirements
- **INTERACTIVE WAYFINDING LOCATION:** Mobility Hub Options + Information
- **WAYFINDING:** Pedestrian Focused Wayfinding + Information
- **EDUCATIONAL SIGNAGE:** Pond, Habitat, Resilient Design Information

Concept Pedestrian Wayfinding typologies; Type 2: Building Entrances and Type 4: Pedestrian Directory / Wayfinding.

Pedestrian Wayfinding

Pedestrian directory and map signage should be located adjacent to the flow of pedestrians integrated into the streetscape. It should include on one side a map of the site with relevant details and on the reverse walking times to specific buildings or locations of significance such as the transit hub, trail access points, and civic uses.

C: SIGNAGE + WAYFINDING

Concept bicycle and vehicle wayfinding typologies,

Bicycle Infrastructure and Branding

Bollards should be used to demarcate areas where vehicles are not able to access but where the surface of the street remains unified at a single level for improved pedestrian and bicycle circulation and access.

Bike racks at buildings and in public spaces should be used as an opportunity for branding to place emphasis on the cycling and walkable nature of the development.

Vehicle Wayfinding

Vehicle wayfinding should be considered in the context of increased use of mobile navigation systems and should be secondary to good building signage at point of arrival. Street signage should be designed to function for pedestrian use and bicycle use as well as vehicles. Signage should therefore be double sided to allow street name to be read when approaching from either direction. The slow design speed of streets within NeoCity (25 mph) allows for smaller more pedestrian scale signage to be used.

Design overall should be simple clean design in matte finish metal based on the Landscape Palette. Splashes of color for the text or pole base can be used to tie into the overall aesthetic of the NeoCity Master Plan.

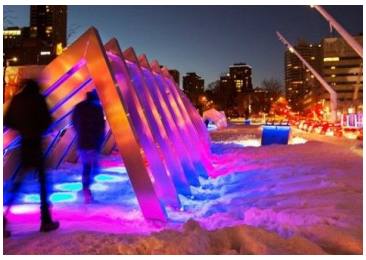
Pole mounted street signage should be consistently placed within intersections to allow ease of recognition and should follow guidance in the Manual for Unified Transportation Control Devices (2009). Signage height should be a minimum of 7' and letter height a minimum of 4".

NeoCity Identity Overview

Gateway branding and art work overlap in their role as marking locations and providing points of interaction with public spaces. The simple intent of these is to form memorable distinctive features in the wider urban area, announcing the presence of NeoCity.

Five gateway locations are identified in the NeoCity Master Plan which would be appropriate for this kind of artwork/branding. The design of these unique wayfinding elements should take into account the recently adopted CRA signage guidelines. A hierarchy of the gateways is recommended as follows: 1) Denn John Lane, 2) Bill Beck Intersection, 3) Neptune Road, 4) Fortune Road, and 5) Oak Street.

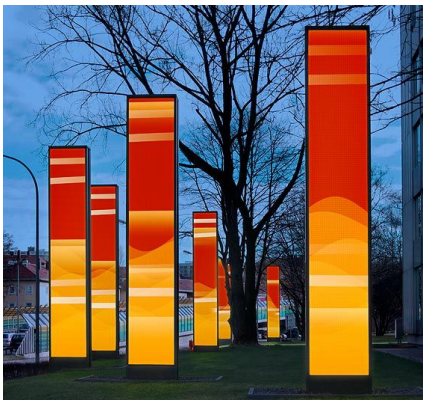
In addition to these gateway locations, art work should be created for the central plaza and at the socializing hubs in the neighborhood parks. The motif recommended uses the angular sculptural elements of the master plan and the softer native landscape planting of the landscape plan. Water and light should be combined to add a dynamic element to the art work.



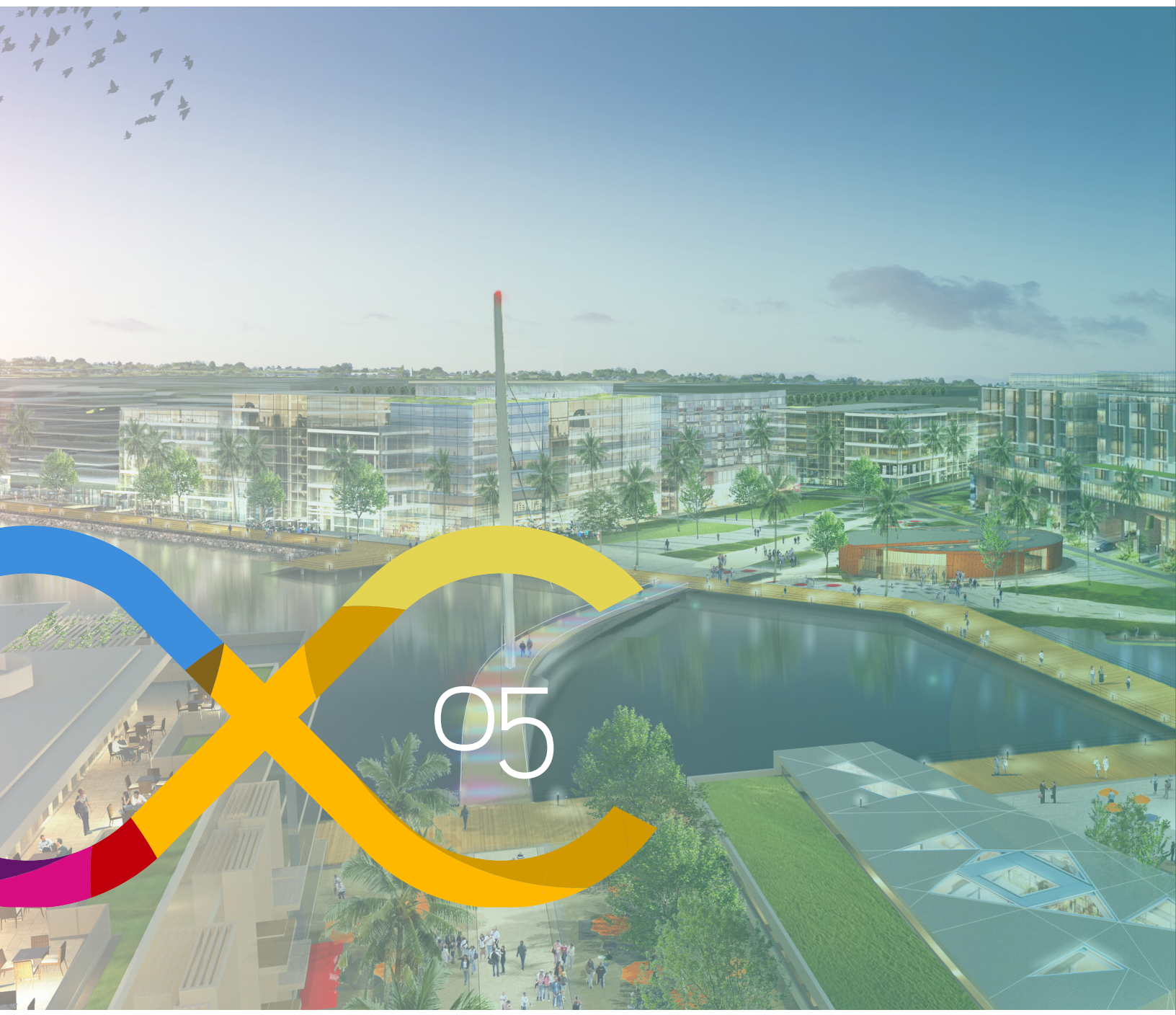
Interactive sculptural wayfinding would be exempt from signage regulations as it contains no words. A motif using light and water should be designed for the five master planned gateways

Playful use of the NeoCity logo in the streetscape also adds to the character and strength of the brand. Bespoke art pieces which are situated in the public realm, linear parks, and open spaces should be included in individual developer discussions.

Monolithic gateway signage can be integrated with creative lighting which changes based on events or activity within the district. This large scale statement should be reserved for the primary entrance to NeoCity, which is planned for the Denn John intersection.



Clusters of digital signage provide a way of both signifying a gateway and creating a common theme for and thread through the district. These should be coordinated with the gateway entrances for maximum effect.



05

NEOCITY

05

IMPLEMENTATION

05 IMPLEMENTATION

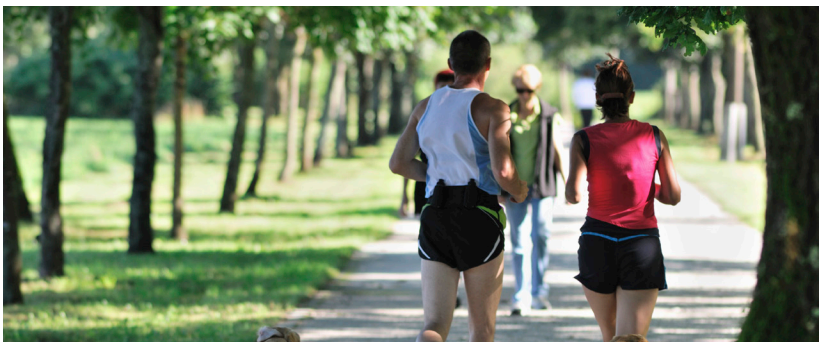
This section sets out an overview of the governance structure established to oversee development of the NeoCity Master Plan, as well as an initial approach to management that is being put in place to launch its near-term implementation activities. Staffing of NeoCity's complex and highly integrated functions may evolve to meet the pace and character of its real estate development, as well as respond to the intensity and diversity of on-site programmatic activities that will be needed to ensure NeoCity's long-term success as an innovation district.

A series of "road map" directions for district management is provided, along with development applications which can be used to guide the decisions for implementation of NeoCity in the future. It is anticipated that the broad intent of these directions/recommendations will be formalized in future ordinances and guidelines in due course.

Governance + Management Overview

The governance and management components of the Master Plan have been developed in tandem with the County's internal discussions to provide feedback and response to the multitude of potential approaches.

These key elements of the future of NeoCity must pass three tests. First, they must ensure that the long-term policy intent of Osceola County is met and sustained. Second, they should promote the ability to conduct day-to-day business transactions at the speed of business. And third, they should provide the efficient flexibility to respond to all types of entities interested in locating within NeoCity—from global enterprises to locally-grown start-ups.



1. A governing body will be established by the County Commissioners in the form of a dependent special district and limited purpose unit of local government: "NeoCity Maintenance District"

The NeoCity Maintenance District's purpose includes: a) expanding and enhancing economic development activities and employment opportunities; b) maintaining common facilities within NeoCity under contract with the County; and c) enforcing the restrictive covenants imposed by the County within NeoCity. The District will be governed by a seven person Board of Supervisors, with general powers defined by County Ordinance. This board will oversee the running of NeoCity and will include persons with expertise related to the local development market and the global industry that NeoCity is seeking to attract, as well as representatives from the University of Central Florida and Osceola County Government. This blend of individuals will provide the right mix of knowledge and direction to ensure the goals of NeoCity are realized.

2. Land within NeoCity will remain owned by the County, with long-term leases (or sale) granted under approval by the NeoCity Board of Supervisors.

The County will execute a "service agreement" (contract) with the NeoCity Maintenance District to market NeoCity land and facilities to companies, relevant non-profit entities, or to developers (who would build facilities to house the former). Deals will be negotiated and transactions closed by the NeoCity Board of Supervisors (The Board), based on pre-set criteria established by the County Commissioners and spelled out in the Service Agreement. If these criteria are met, transactions may close automatically with the County executing transfer of leasehold (or title), but not negotiating or approving.

3. Public/Private Partnership Infrastructure

In the spirit of NeoCity and its partnership approach to both the Master Plan and its future implementation, The NeoCity Board of Supervisors and management will actively seek out public/private partnership opportunities for projects that promote the intent and aspirations of the plan. Examples could include the following:

- County, university, industry-managed incubators / accelerators;
- Programs or initiatives that promote entrepreneurship and networking;

- Commercial provision of parking structures or investment;
- Investment partnerships: the County will identify where opportunities arise for partnerships on projects which align with the vision for NeoCity; and,
- Partners for pilot or test infrastructure; for example, street construction utilizing solar road/bike lane surfacing.

These concepts should promote development of NeoCity's ecosystem and tie into the broad vision for NeoCity as a healthy, vibrant, walkable district.

4. NeoCity Will Require Staff in the Long Term

In the near term—as NeoCity establishes itself—existing County staff will fill a variety of roles necessary to its launch and operation, including solicitation of developers, negotiating early real estate transactions, recruitment of "low hanging fruit" tenants, as well as marketing and brand development, maintenance, administrative functions, limited programming, and general daily management. As the development grows, however, dedicated staff will be necessary to oversee the management of the district.

NeoCity Roles and Responsibilities

The nature of an innovation district or similar enterprise ultimately requires full-time, dedicated staff. NeoCity is both a place and a set of functions which define it as clearly distinguishable from other real estate across the Central Florida region. Drawing on best practice models from exemplary U.S. research parks and innovation districts, these functions which need to be performed by NeoCity staff include (but are not limited to) the following buckets of activity, with the skill-sets and capabilities they imply:

- **Functions related to land and its development:** Ensuring conformity with master plan vision, goals and requirements; establishing, modifying and overseeing the regulatory framework for development and construction of buildings; additional land acquisition; land leasing or sales; ongoing infrastructure planning and implementation; and public space / amenity planning.
- **Development and management of facilities:** Developer recruitment / relationship management; self-development of facilities by the district entity (if not using a master developer or project-specific developers); ongoing property management; public space management.
- **Marketing (broadly defined):** Strategy and brand development; advertising plus related communications tools, e.g. websites, print material, way finding (signage), etc.; PR and media relations; serving as the "public face" of the district.
- **Attraction of tenants:** Creating and implementing the business recruitment strategy, including trade shows, prospecting trips, etc.; establishing broker policies; "sales" (closing functions including incentives packaging); establishing / maintaining key partnerships essential to business recruitment, e.g. state government, regional chambers or economic development corporations.
- **Retention and support of NeoCity tenants:** Liaison between tenants and partner universities (e.g. to help access the full spectrum of resources, from faculty to students, equipment to facilities, or special privileges such as library or athletic facilities); "ombudsman" role; staying on top of tenants' ongoing real estate or business growth needs.
- **Innovation Ecosystem coordination and collaboration:** Incubation (direct support to start-ups and fast-growth small enterprises); coordination with investor and entrepreneur networks; liaison with technology transfer offices; building a pipeline of new entrepreneurial tenant prospects or helping existing start-ups find new space in which to grow.
- **Fostering a sense of place:** Activities programming, ranging from conferences or substantive networking events for targeted industry sectors, to food trucks

or after hours social activities— sports, concerts, arts or family events, farmers markets, etc.; tenant-oriented services (e.g. daycare, access to fitness facilities); communications tools (e.g. tenant-oriented newsletters) to build awareness of NeoCity, its ecosystem, and to promote connectivity with outside activities and resources.

- **Issues related to talent attraction and workforce development:** Organizing structured training and professional development opportunities for targeted growth industries or specific companies; maintaining / accessing human resource databases.
- **Stewardship of the Strategic Business Plan for the district as a whole:** Establishing, refining and regularly updating goals, objectives, work plans (priority setting); alignment of NeoCity plans and processes with those of the university and other key partners / stakeholders; advocacy and coalition building; accountability (success metrics); identifying and accessing new resources to support the NeoCity mission (e.g. funding, institutional support, etc.); coordination with the full range of community and stakeholder interests.

Consistent, Singular Vision for NeoCity

Irrespective of all other considerations, there is a need for a single vision of how NeoCity is to operate, especially as it executes its strategy to evolve from being a fully Osceola County-directed initiative to becoming a free-standing (though dependent) "Maintenance District".

NeoCity needs to be led by an executive level CEO whose focus is solely on moving the NeoCity agenda forward: building capacity to address gaps in the current delivery system; then helping actualize the building blocks for NeoCity as the innovation district that it is destined to become. The key feature for this role is centralization of management roles and responsibilities to an individual charged with addressing the innovation district enterprise from a 360-degree vantage.

The CEO position should be structured around the ability to focus management time and attention on the game plan in its entirety, and then to follow through with execution—crossing over multiple functions, e.g. from planning to real estate; branding and PR to tenant recruitment; or from interfacing with the university to building community, within. This in turn requires a variety of skills and no one person can do it all. Therefore, while some innovation districts do have large staffs, staff per se is not the full answer: the specific expertise for each function can reside either inside the primary management entity or outside, e.g. it can be carried out by contractors instead of employees.

The CEO can also act as a "single point of contact" for outside parties - prospective tenants - to be able to effectively interact with and to access NeoCity. This role therefore also serves as a portal for companies wishing to access the exceptional research and technology commercialization capabilities at BRIDG, the University of Central Florida, or other likely academic and research partners.

NeoCity's Biggest Challenge: Coordination of Planning and Action; Strategic Business Planning

The intent behind having full-time, dedicated staff—in the form of a CEO— is to address the challenge of coordinating the many functions that are central to the effective functioning of NeoCity as an innovation district. For the NeoCity enterprise as a whole the Strategic Business Plan is a continuous, ongoing function that requires sustained management leadership. Operational planning must be updated at regular intervals and provide for alignment with County and key partners strategic priorities (e.g. BRIDG, UCF, High Tech Corridor), as they too evolve.

The Strategic Business Plan should incorporate the physical Master Plan's goals and assumptions and demonstrate how those physical elements are intended to be implemented. It should address how all manner of programmatic elements will overlay the physical plan.

Entrepreneurial Support Programs

The role of ensuring robustness in the local entrepreneurial ecosystem (for example, running incubators) is a function that some districts actively lead, while others operate more as a benevolent landing place for businesses generated by the ecosystem. Regardless of whether an incubator / accelerator function is directly run by the district entity—versus by a separate, special purpose or partner organization—these and other innovation activities need to align closely with the mission and purpose of NeoCity; they are the essence of what distinguishes it from being merely another commercial office park.

NeoCity management therefore may wish to establish a strong partnership with the incubating entity on-site or with the various entrepreneurship and innovation ecosystem entities throughout its region. NeoCity has a head start on this, given its close relationship with University of Central Florida, whose programs are recognized as some of the most sophisticated and effective in the Country. At issue will be how and when these services may be delivered directly to the NeoCity location.

MANAGEMENT DISTRICTS

Part of the roll of the NeoCity Board of Supervisors (The Board) will be to oversee the services and spaces that operate at a district wide scale. The characteristics of maintaining a successful urban area which is walkable, active, and vibrant requires a joined-up approach to management. Management Districts should be established which will play specific key roles in the management of open spaces and parking.

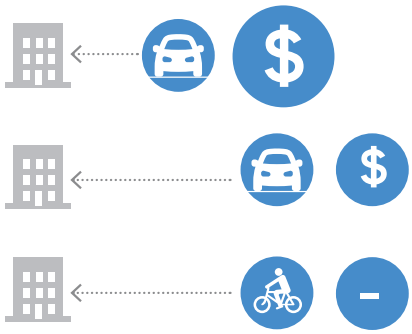
NeoCity Open Space Management

Open spaces within NeoCity, including the parks and right of way areas, will be subject to the oversight of the The Board in their design, programming, and management. Construction of these spaces may be associated with investment by private developer but spaces identified within the master plan as feature spaces will remain in the control of the County. Additional open spaces provided within development parcels will be expected to be maintained and managed by private companies, but should interact seamlessly with the public spaces within NeoCity. The Master Plan also proposes that developers are able to commit a payment in lieu of open space provision. This will be negotiated on a case by case basis and will require approval by the NeoCity Board of Supervisors.

The Board should identify a dedicated staff-member or County staff person responsible for overall cohesive review of open space design, operation, and programming. This individual should be engaged in the design review process where open space is included within a development proposal. This role will work closely with a programming and events coordinator to balance the competing needs for open space uses between public, corporate, and community uses.

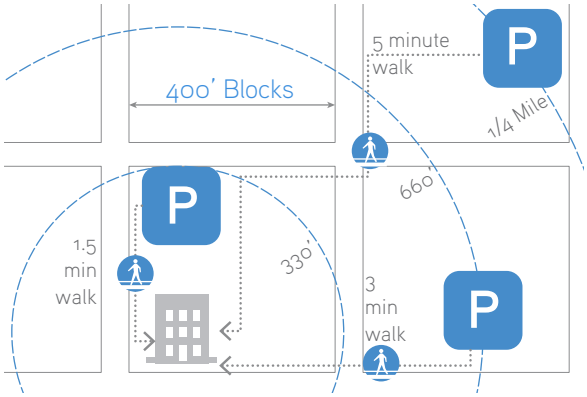
NeoCity Parking Management

As part of the long-term build-out of NeoCity, parking is an essential component but potentially a large compromise when designing buildings and places within the site. With each parking space consuming more area than two individual offices, prudent parking development enables more productive land uses and community spaces within NeoCity. Developing parking at typical "market" ratios of four spaces per 1,000 sf of building area would exceed average office park demand ratios of 2.5 spaces per 1,000 sf, while the compact mix of uses at NeoCity has the potential to require less than half of typical market ratios if parking is shared as a resource pool for multiple tenants. Given amortized construction debt service and maintenance of at least $150 per space each month for structured parking, there is a financial incentive to reduce parking supply and reinvest those resources in a superior shared-resource environment of services, open spaces, amenities, and parking which attracts and retains tenants. However, to promote a shared approach requires both the accommodation of traditional market expectations as well as valuable tenant incentives to participate in sharing.



A Mobility Management District balances investment necessary to support supply of parking against cost for users based on individual company choice of options.

A shared supply of parking may not necessarily be in the same block as the proposed building. The walkable nature of NeoCity means that walking two blocks is as little as a 2.8 minute walk at a typical walking pace.



Shared Parking Incentives

In order to attract traditional market tenants, there will be pressure on NeoCity to offer parking supply ratios in the region of four per 1,000 sf. However, it can incentivize the use of shared parking to drive down parking need and construction cost through a system of tiered parking leases and associated supply ratios. A tiered approach acknowledges that parkers are sensitive to pricing changes , so any increased cost to park—or a financial benefit to not park—elicits a reduction in parking demand. This demand is either pushed to cheaper parking (typically remote spaces) or to other transportation modes, which is why pricing parking can often be replaced with cashing-out its value by subsidizing remote parking or the use of other transportation modes. It is these two features that form the basis for tiered leasing arrangements.

1. Assumes an average structured parking cost of $20,000 per space financed at 3% per year for 30 years. Typical construction financing would require faster payback, so parking cost is instead bundled into rents, resulting in higher monthly rent premiums.

2. The average elasticity for parking pricing is -0.3, which means that for every 100% increase in parking price, 30% of people will chose to park somewhere else (or not drive).

Tenant Leasehold Tiers

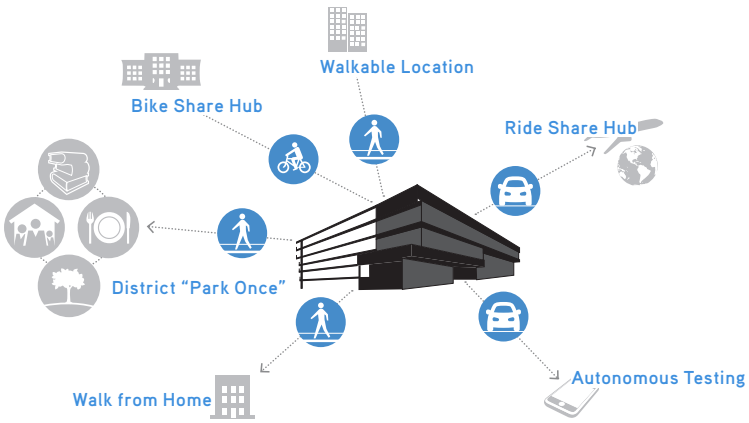
Tier 1: The highest (or standard) parking cost is associated with on-site/nearby reserved parking, which is signed or numbered specifically for a tenant's employees only. Because this parking cannot be used by others when employees are out or after working hours, it is the least-flexible and highest-cost parking supply that NeoCity can offer, warranting the highest lease rates. In initial phases of development, this may be the standard tenant expectation, so it may not be highly-priced as it cannot add a substantial premium to market rents for tenant space (whether or not the parking cost is bundled in rent or charged separately). However, as NeoCity builds out and requires structured parking, the growing cost of building "tier one" reserved tenant parking will weigh on the ability to provide other tenant amenities.

Tier 2: Discounted parking would provide a benefit to tenants willing to have their employees or residents parked in a shared supply without designated spaces. Much like a shopping mall, anyone can park in this parking, allowing NeoCity to take advantage of shared parking efficiencies associated with different peaks of demand from different tenants, as well as normal employee absences or travel. This results in much lower supply ratios (2.5 per 1,000 sf) that reduces the cost of parking provision, releasing more resources for NeoCity to provide additional amenities to tenants selecting this parking options, such as valeted bicycle parking, free electric car charging, and priority carpool parking. Meanwhile, tenants could be charged a 25-50% discount for "tier two" shared parking, or alternately, NeoCity could provide a parking cash-out for the employees/residents of tenants who chose to park in shared parking instead of reserved spaces.

Tier 3: Low-cost remote parking provides substantial benefit to tenants whose employees or residents are willing to park and walk a bit further to their job or home. The lowest lease rates or highest cash-outs would be offered for these "tier three" spaces, which would also have the lowest construction and maintenance costs for NeoCity. Parking discounts of 50-75% could be offered, while NeoCity's cost to provide such parking might be one-tenth that of a structure, resulting in sufficient reserves to provide the highest quality walking, biking and transit amenities to tenants using remote parking.

Pilot Tier: Mobility Labs

A Mobility Lab concept should lead the way in demonstrating the application of new technologies emerging in the autonomous vehicle market and testing parking efficiencies as part of a program to reduce future need for parking structures. This 'pilot tier' of parking provision will actively work with companies and employers to develop new solutions and implement transportation demand management programs with a variety of public and private incentives that evolve over time from bike share to autonomous corporate sponsored shuttles..

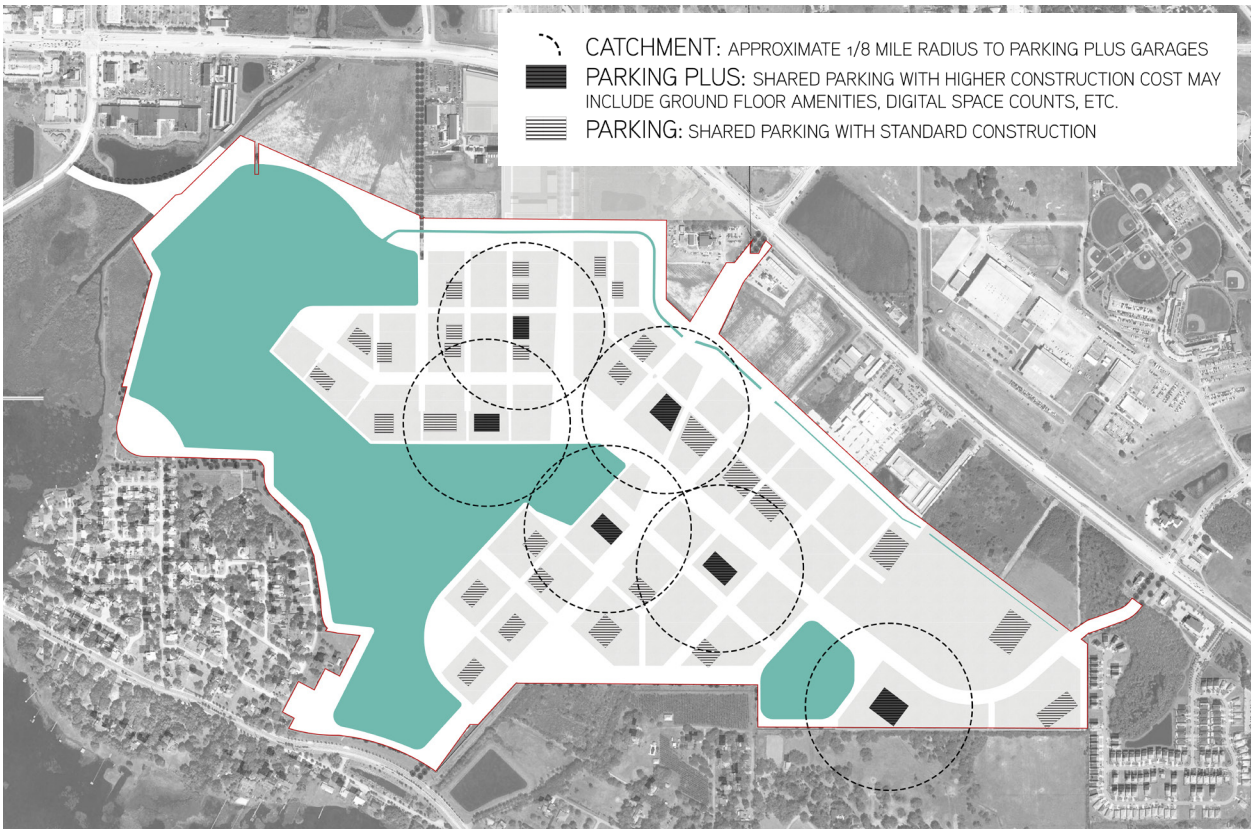


Summary Table of Standard Parking Tiers

	Parking Rights	Sharing	Annual Cost per Car	Rent Premium	Early Participation	Ideal Participation	Comment
Tier 1	Reserved	N/A	$16,000	+ 10%	80%	10%	Restricted number by lot
Tier 2	Shared	Moderate	$10,000	- 15%	15%	75%	General provision to CRA code requirements
Tier 3	Remote	High	$2,000	- 50%	5%	15%	Located on future building development sites

Natural Evolution Of Shared Parking Efficiencies

Initially, it is not expected that more than 20% of new tenants will opt for shared and remote parking. However, over time—and particularly if leases can be easily renegotiated—the financial incentive to both tenants and NeoCity of using shared parking and especially remote parking will see these tiers become the primary type of parking offered, with only limited reserved "tier one" spaces needed. NeoCity will experience substantial savings in the cost of parking provision over time—especially as structure parking becomes a necessity. Through a tiered parking leasehold program, NeoCity can pass a portion of this savings on to tenants while investing another portion in high-quality on- and off-site walking, biking and transit amenities, as well as parking cash-out incentives that attract more tenants' employees and residents to use shared and remote parking.



Parking Plus Concept: Certain garages will be attributed with additional facilities, such as active ground floor uses where they provide a need for contributing to the activity around the center of the district.

Implementation Actions

To implement the tiered parking program, NeoCity should:

- "Unbundle" the cost of parking from tenant rents by revealing the cost of parking provision as a separate negotiable line item in all leasehold arrangements, or separating parking into a separate lease/rent mechanism.
- Provided a tiered parking cost table to all prospective tenants.
- Establish three tiers of parking based on proximity to tenant front doors ("tier one" reserved would be on-site, "tier two" shared would be in a central lot/garage, and "tier three" remote would be at the edges of the developed site.
- Establish walking, biking, and transit amenities and a marketing program to encourage their use.
- Provide tiered cash-out of parking rights to individual employees and tenants willing to park in shared or remote parking in return for a financial benefit or free use of paid on-site amenities.
- Monitor parking utilization monthly at peak accumulation within each tier of parking to demonstrate actual use ratios so that tenants are encouraged to lease less parking over time.
- Pay into a shared mobility program. Each tenant can opt for different levels of commitment to mobility from premium parking in structures, to distant parking, to shuttle, and car share. Options will change over time. Below market leasing rate with parking separated, may be attractive for startup businesses who have minimal capital to start with.
- Expensive infrastructure can be funded through bank loan on the basis of company commitment to enter payment program for mobility options. Agreement can be resigned in a fixed number of years to allow for shifts in availability in mobility solutions and near tenants and new developments.

Controlled Growth of the NeoCity Ecosystem

Several mechanisms are recommended for managing the development of NeoCity over time. These include the creation of covenants, conditions, and restrictions (CC&Rs) which set the ground rules for individual developments to follow the Master Plan and Design Guidelines, but also include review mechanisms for development use types and design review processes. These elements should be refined and embedded in a Strategic Business Plan through the near-term implementation of NeoCity.

Covenants, Conditions, and Restrictions (CC&Rs)

It is the intention of the Master Plan to provide a well-articulated approach to future development that achieves the intended design direction without being overly restrictive or formulaic in its regulations. This approach allows for flexibility when combined with the design review process outlined below.

Under the NeoCity Board of Supervisors direction, a set of CC&Rs should be created that specify the exact rules and regulations for developers, industry partners, companies, or any tenants seeking to locate within NeoCity.

The CC&Rs should be approved by The Board and would become binding on all individual users of designated property within NeoCity. As a formal set of provisions, it should reference or relate at a minimum to the following:

- The Master Plan (as formally adopted by the County)
- Community Redevelopment Authority (CRA) ordinance and relevant County regulations, including zoning
- Creation of Owner's Association and role
- Construction and improvements
- Easements and common areas
- Maintenance of common areas, grounds, private property
- Enforcement, amendment and administration

Companion Documents to the CC&Rs

With the CC&Rs adopted and registered with the County, The Board should seek to develop and adopt various companion documents as specified by the CC&Rs that provide additional and more specific policy, regulatory and operational guidance. Typically, these would include the following:

- Permitted Use Criteria
- Design Guidelines (contained within the Master Plan)
- Establish an internal "Design Review Committee".
- Design Review and Approval Process
- Construction Guidelines
- Maintenance Guidelines
- District Rules and Regulations
- Standard Ground Lease or Sales Agreement document
- Standard Developer Request for Qualifications, and a standard Developer Services Agreement

Owners Association

Once a sufficient number of tenants have begun occupying NeoCity, it is recommended that an owners association is formed. Once activated, the owners association will require its own articles of incorporation and bylaws, further delineating its scope of activity and internal processes.

Land Use Continuum and Responsive/Dynamic Adjustment

Relying strictly on market forces to influence development can potentially lead to an overabundance of certain uses and/or activities, which may hinder the desired evolution of the ecosystem in the early formation of NeoCity as a district. A certain amount of control of land uses is needed to manage the maturation of the district into a balanced development of complementary activities and land uses.

The recommended "Year One Use Card" (adjacent) has been generated to provide guidance regarding the desired land uses. These uses have been broken out into "required land uses, " "incentivized land uses," "allowed land uses," "negotiated land uses," and "not permitted land uses."

INCENTIVIZED	ALLOWED	NEGOTIATED	NOT PERMITTED
CLASS A OFFICE	SENSOR BUILDINGS (COMMERCIAL & UNIVERSITY INSTRUCTIONAL)	PARKING STRUCTURES	GAS STATIONS
URBAN FORMAT RESTAURANT/CAFES	RESIDENTIAL		BIG BOX RETAIL
VISITOR/WELCOME CENTER/PAVILION	LARGE FORMAT INCUBATOR BUILDINGS		ACADEMIC/SCHOOL
	CLASS B OFFICE		LARGE SCALE MANUFACTURING
	URBAN FARM USE		SERVER FARM BUILDING
	URBAN SCALE RETAIL		

Recommended Year One Use Card. Review of this use card should be done on an annual cycle by the County and the Maintenance District Board.

Land uses may, at a certain concentration, reach a saturation point. The land uses should be reviewed annually by the County and The Board, at which time they can be moved between categories based on the current floor space allocated to them in the district at the time of the application. The restrictions implicated by the categorization of land uses should be used as a tool for monitoring the evolution of the district.

This method should also be used to direct future development types. For example, in Phase 1, many development types are in the allowed category but as the development evolves certain uses, such as residential, or retail, or sensor manufacture, may reach a tipping point and be moved into the "negotiated use" column, and eventually the "not permitted" column. This approach will serve the development more responsively than a prescribed land use mix.

Implementing/Incentivizing Uses

Targets for amenity uses, either temporary or permanent, should be considered by phase to ensure a spread across the site. If there is a lack of commercial interest for development of amenities, such as restaurants, The Board should seek public-private partnerships (P_3 development) to fulfill this need, incentivizing their transplant to the site.

Managing Large Scale Development Interest

Should a large acreage development interest arise for a NeoCity site, the master plan is flexible enough to support potential multi-block development but also rigid enough to ensure that the framework of streets and connectivity of the layout is not lost. In this event the NeoCity Board of Supervisors should ensure that:

- A large development interest in the site of over five acres will need to commit to dedicating secondary street connectivity through their ownership parcel as public right of way.
- Streets will be developed to the County specifications and recommendations for the pedestrian and bicycle infrastructure included in the Master Plan.
- Open space will be provided per the requirements in the Design Guidelines.

Developer "Deal Structure" and Models

As indicated above, the master plan envisions a variety of sub-environments throughout the NeoCity site, that by implication lend themselves to a consideration of multiple differing developers undertaking projects within the defined zones or districts. As it begins to operate, the NeoCity Board of Supervisors should consider a range of options for developer relationships that could advance the NeoCity mission while ensuring orderly development consistent with the master plan vision. Such an approach may incentivize developers to play a role more akin to "partner" than merely as "tenant" (or merely being a service provider to a stand-alone, build-to-suit tenant, e.g. a major corporate or institutional user).

OPTION 1: MASTER DEVELOPER.

The Master Developer model might take on a role with "horizontal development" of the entire NeoCity acreage or of a significant sub-area of NeoCity—providing crucial expertise in assessing market opportunity and recommending phasing of development, as well as in financing infrastructure and public spaces, or constructing specific buildings (whether multi-tenant or build-to-suit for a single large tenant).

Initiated preferably through a two-stage RFQ / RFP process, this model envisions a long-term relationship, with the developer playing a significant role in marketing of NeoCity as a whole, in addition to financing certain elements. The developer may, in turn, seek sub-development partners for specific elements, e.g. if residential, retail, hospitality, service or other types of mixed-use activity are anticipated and desired, and companies that specialize in these areas are better able to develop these products.

OPTION 2: CONTINGENT DEVELOPER

This option represents a more narrowly defined but still up-front commitment by the County and the NeoCity Board of Supervisors. In this variation, a developer RFP will pre-approve a developer in advance of known tenants. The intent is to have the RFP process out of the way, so that the district can move quickly in response to either a) an inquiry from a major user, or b) to an accumulation of smaller tenants who may together meet the threshold for developing a multi-tenant structure. The Contingent Developer is selected in advance, and deal terms are established in advance, including establishing financing sources and identifying the trigger threshold that will allow projects to proceed.

A key to the efficiency of the Contingent Developer approach is that it allows for a single developer to be retained for multiple prospective projects. The ability of the developer to continue the relationship to undertake a second, third etc. project may be either performance-based, or may be tied to the nature of the development opportunity at hand. In other words, a Contingent Developer for office buildings may or may not have the skill sets to undertake a highly specialized technology building, or to develop buildings that involve a higher degree of risk.

OPTION 3: SELF-DEVELOPMENT

A third variation involves individual "one-off" RFPs to secure developers for individual sites / buildings, similar to the Contingent Developer but without any commitment to additional buildings; or, where the RFP is not issued until a know tenant or group of tenants has been identified by NeoCity.

This is more or less the process undertaken by Osceola in the case of the BRIDG facility. The importance of considering this model for future applications is that, while the developing entity (presumably in the future, this would be the Maintenance District, but backstopped by the County) must assume the financial risk, there also is the opportunity for upside from the positive cash-flow, that can go towards funding other real estate development and represent an income stream to help cover operating costs of the NeoCity Maintenance District.

Pros and Cons of Developer Models

In considering these options the degree of "risk-reward" being undertaken by the developer versus the County (or The Board), as well as aspects of "control" given out of the hands of the County must be taken into account. A Master Developer—if prepared to make the major long-term investments in infrastructure that are common to this role—will expect a preferred share and structure of any returns; and they may demand to exercise control over the approval of tenants going into the district, so as to maximize their potential for returns. The developer of a "one-off" project (or a fee developer structure) is most responsive to NeoCity's imperatives, but takes the lowest level of risk.

The contingent developer model, if aligned to priority projects, and districts or zones within NeoCity, provides the greatest room for negotiating flexible terms that have the opportunity to result in a win-win for Osceola County and the NeoCity Board of Supervisors. Choice in this matter will be a function of developer interest and therefore all three options should be considered moving forward as NeoCity establishes its operating model.

Design Review Process and Master Plan Monitoring and Updates

NeoCity sets a significantly different direction for development within Osceola County. This change in direction is likely to initially be met with a need for greater attention to the detailed steps which are necessary to get from the historic 'business as usual' design quality and process to a new model of inspired and integrated design.

Necessary steps in this shift will be the coordination of a design review process between the County's planning and engineering staff and the NeoCity Board of Supervisors. The steps necessary for this design review process are recommended as:

01. Application Process

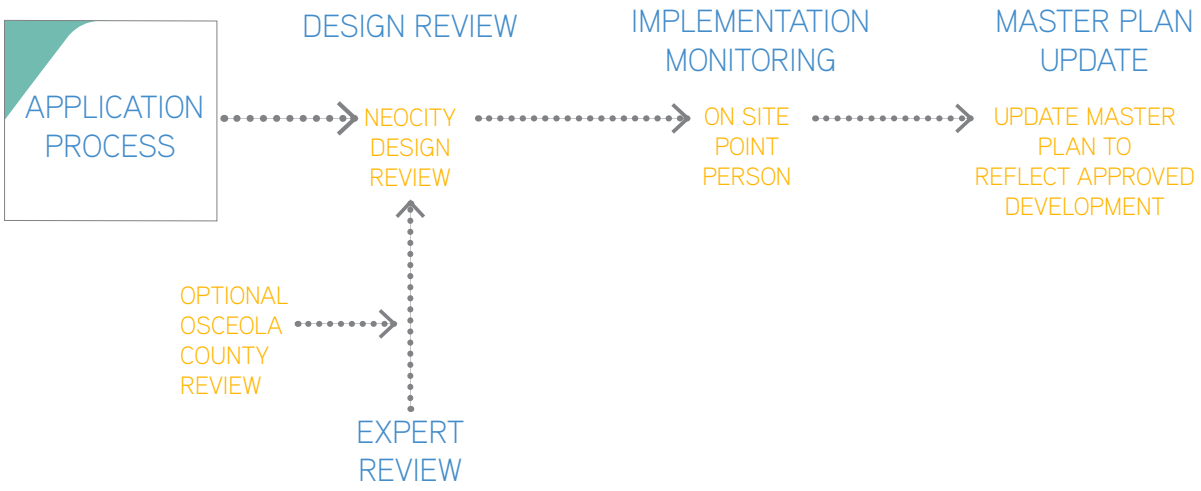
Submission from developer typically precipitated by invitation or discussion with the NeoCity Boar of Supervisors. Submissions should include clear reference to the Master Plan, the Design Guidelines, and any applicable CRA ordinance regulations.

02. Review by NeoCity Maintenance District Design Review Committee

This is standard operating procedure in CC&Rs for greenfield development sites. The committee membership can be small (e.g. 3 people), but is recommended to include at least one professional architect selected by the governing entity (e.g. the District) and one representative of the County;

03. External Consultant Expert Design Review

For large or complex development proposals of more than a single building, The Board should reserve the right to engage an external consultant or expert design review to focus on assessment of the development proposal's ability to meet the design intention of NeoCity at the time of submission. This review should pay particular attention to the status of NeoCity at the time of submission regardless of whether the Master Plan has been updated to reflect these changes. If necessary the external consultant may be required to present their findings directly to the Osceola County commissioners.

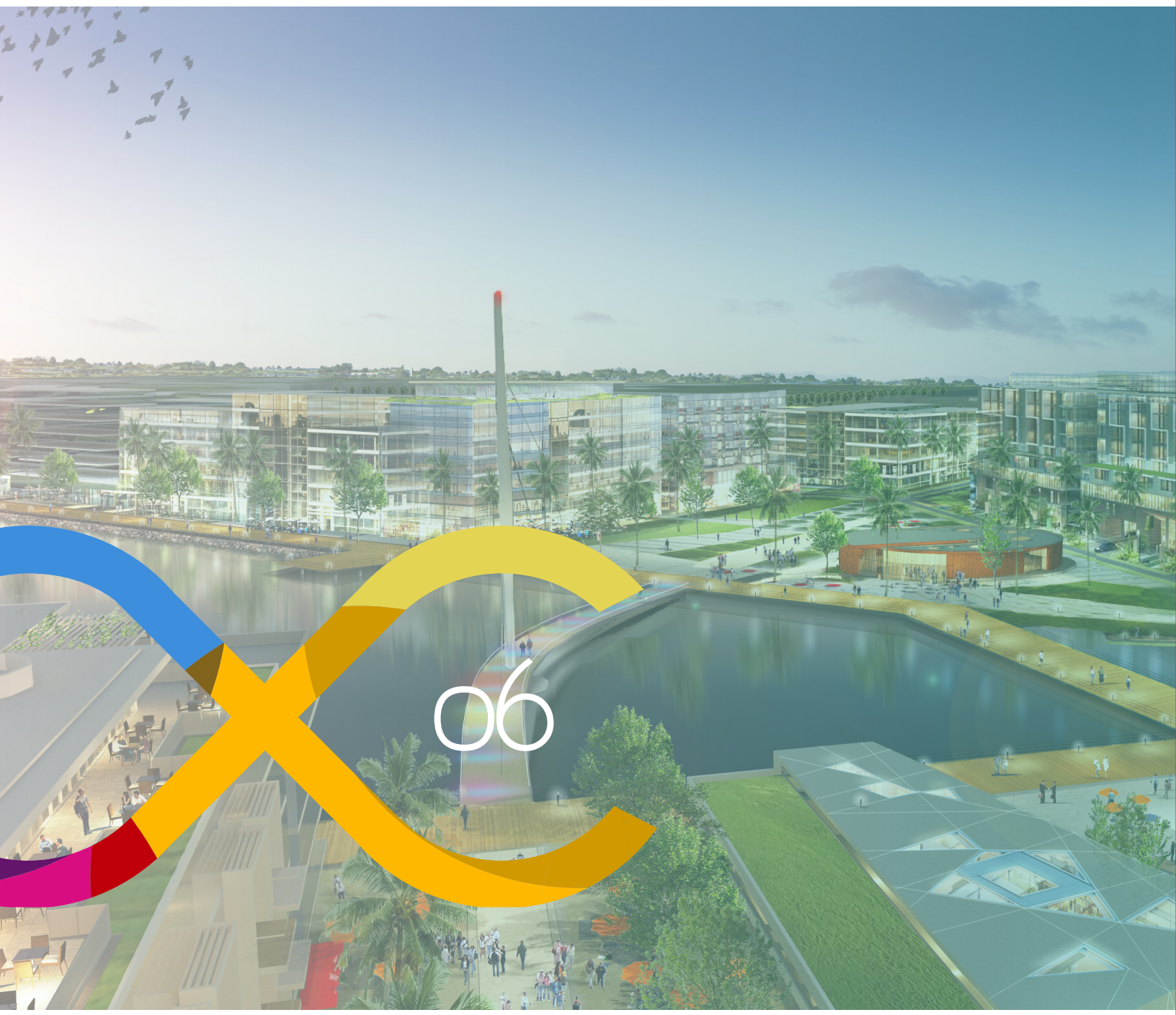


04. On-site Point Person

It is recommended that a single point of contact be identified by either the County or the NeoCity Board of Supervisors to oversee the quality and implementation of construction of all future projects within NeoCity. This role should engage actively in the design review process, any future Master Plan updates, and should be on-site to oversee quality of design implementation from development to utilities.

05. Master Plan Update

It is recommended that a periodic review of the Master Plan is implemented initially on a two year basis, and then moving to five year basis after the first ten years. This will allow for an update on the initial site mobilization and close review of the emerging design direction during the construction of the first million square feet.



06

NEOCITY

06

IMPACTS + MEASURES FOR SUCCESS

06

INNOVATION ECOSYSTEM

"Qualified persistent entrepreneurial teams + subject matter investors + interconnected community of resources = wealth creation for everyone and the economy."

—Blaire Martin,

Director of Florida Angel Nexus

Shaping Development with Target Industries

The Innovation Ecosystem in the Central Florida region is composed of dynamic partnerships and relationships between entrepreneurs, researchers, university faculty & staff, UCF research institutions, industry researchers and business leaders, investors, venture capitalists, advocates & champions, incubators, accelerators, co-working spaces, resource providers, and support services.

The University of Central Florida has been the driver of the innovation ecosystem by creating programs, spaces, and networks to facilitate the movement of knowledge and intellectual property to commercialization.

Being intentional about integrating the innovation ecosystem into the planning of NeoCity is critical for its success. Incubator space, select support services for new intellectual property and technology, teaching space, networking and collaboration space, as well as market-facing space is needed to drive ideas to market. The innovation ecosystem will be NeoCity's competitive advantage.

NeoCity has the potential to attract both big players but also to support the entire ecosystem down to start-up companies. The Master Plan is therefore specifically designed to accommodate fast, mobile companies that want to form part of a cluster with other disruptive ideas and access a network of contacts and resources to support their growth.

NeoCity Target Industries

The following target industries have led the development of scenarios and the initial evaluation of opportunity for the NeoCity district. These are the same industries that are the focus of ongoing efforts by the BRIDG industry consortium.

- Information Technology
- Aerospace and Defense
- Life Sciences and Healthcare
- Energy
- Cyber Security

ECONOMIC IMPACT MODEL

As part of the overall strategy, Angelou Economics conducted an economic impact study. The purpose of this analysis is to provide Osceola County with a preliminary assessment of the value that NeoCity will generate for the County over 50 years – through full build-out of the development.

The economic impact study measures the economic contribution of NeoCity to Osceola County. The findings can be interpreted to be the increase to the County's GDP as a result of NeoCity being established in this particular market.

Economic impacts are derived through multipliers that are specific to Osceola County as well as the industries that will be created within NeoCity. However, NeoCity is bringing a new industry base to the County. By way of example, NeoCity will bring on-line Osceola County's first semiconductor facility. With that point in mind, the multipliers will have limited effect in Osceola County, and industry impacts will instead be "leaked" to other areas of the region, the state, or even the country.

Yet as Osceola County's new industry base grows, the chain of suppliers and vendors will grow to accommodate and capitalize on the economies of agglomeration that will be created in NeoCity. As this occurs, Osceola County will capture a larger share of the total economic impact and reduce the levels of "leakage" that will occur in early years of the development. To put it another way, over time, the total economic benefit of NeoCity to Osceola County will grow exponentially.

Interpreting the Findings

The findings are broken down into direct, indirect, and induced impacts, which are defined as follows:

DIRECT / includes the capital investment, jobs created, and labor incomes paid within NeoCity.

INDIRECT / encompasses the impact for downstream companies that support or supply NeoCity.

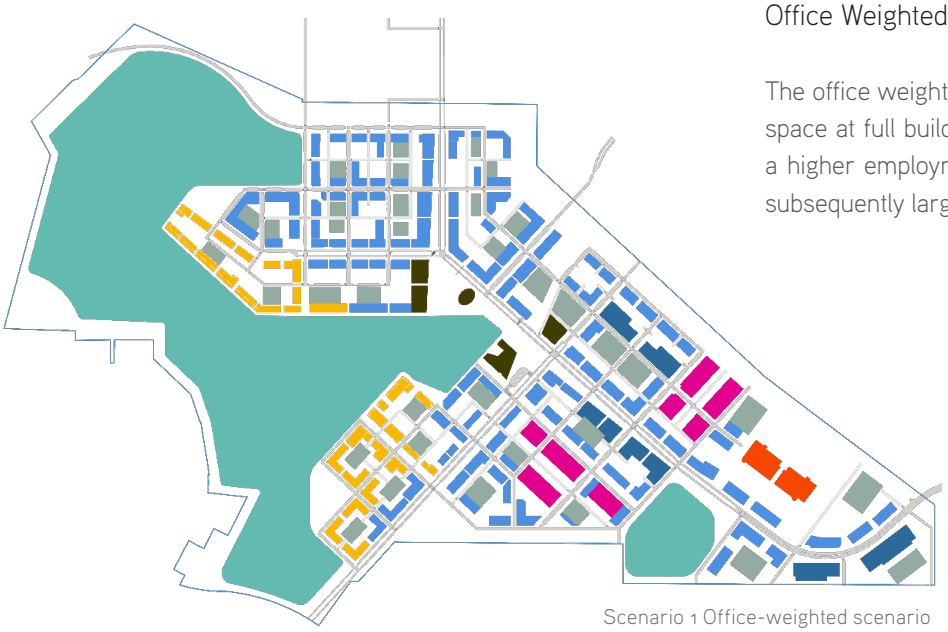
INDUCED / measures the spending patterns of those with jobs that have benefited from NeoCity.

Furthermore, the impact figures are expressed in terms of jobs, labor income, and total economic output. This provides a comprehensive view of NeoCity and its ability to create jobs, additional labor income, and additional economic benefit within Osceola County. As a way to provide additional context for the impact figures, the top 5 sectors have been identified.

All findings are presented as cumulative over the 50-year life of the development. Additionally, all dollar amounts are presented as net present values and represent 2016 dollars. This allows for a quick and easy evaluation of the findings.

DEVELOPMENT SCENARIOS

To offer a range of impacts, two different scenarios have been envisioned: an office weighted scenario and an industrial weighted scenario. The difference between the scenarios is primarily driven by the product types assumed to be brought on-line over the life of the development.



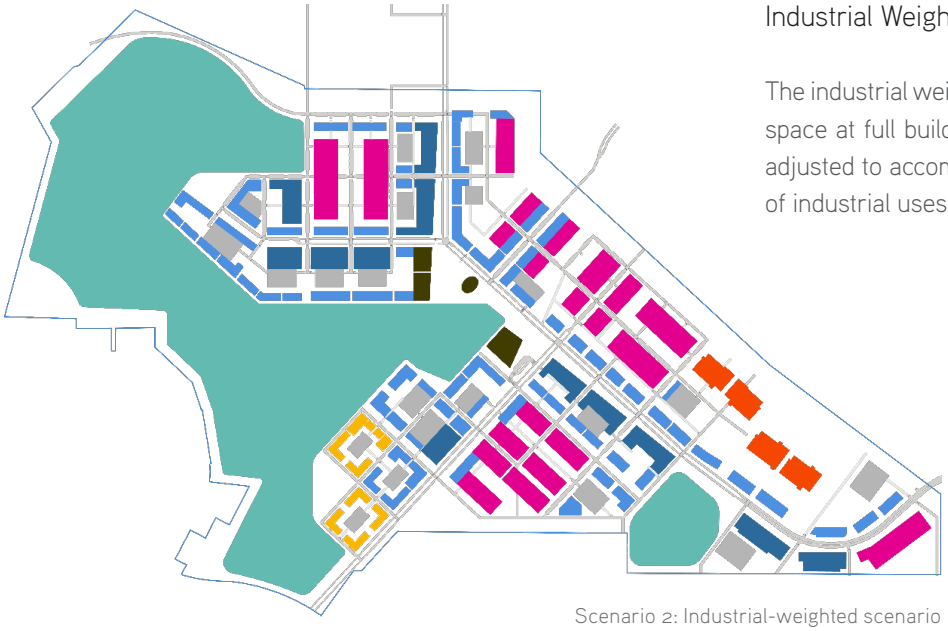
Scenario 1 Office-weighted scenario

Office Weighted Scenario

The office weighted scenario will offer more commercial space at full build out. Given that commercial space has a higher employment density, the residential offering is subsequently larger as well.

Building Square Footage
(Office Weighted Scenario)

Building Type	Square feet
Commercial	8.5M
Industrial	0.7M
Residential	1.7M
Total	10.9M



Scenario 2: Industrial-weighted scenario

Industrial Weighted Scenario

The industrial weighted scenario will offer more industrial space at full build out. The residential offering has been adjusted to accommodate the lower employment density of industrial uses.

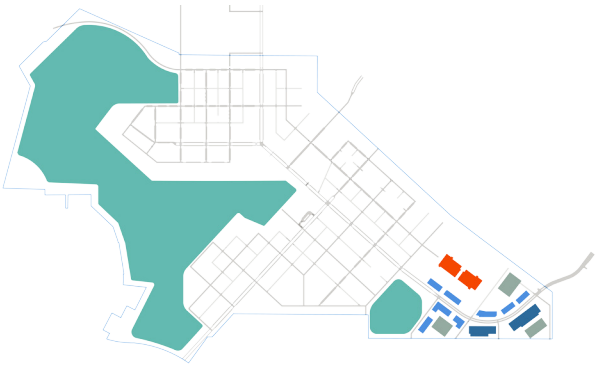
Building Square Footage
(Industrial Weighted Scenario)

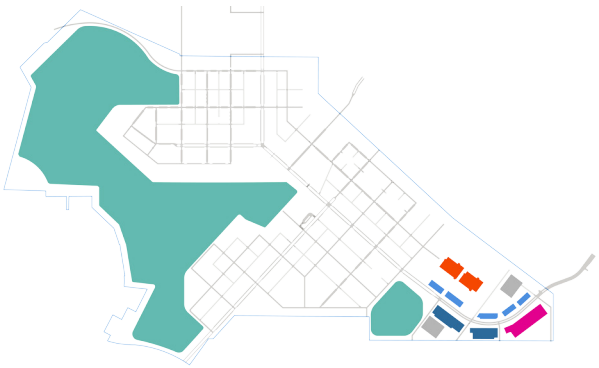
Building Type	Square feet
Commercial	7.1 M
Industrial	2.2 M
Residential	0.5 M
Total	9.9M

Office Weighted

Industrial Weighted

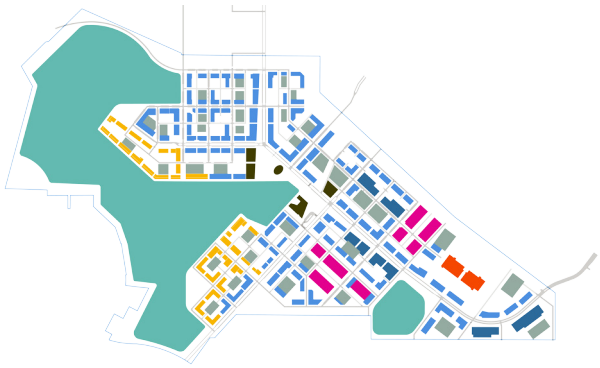
Phase 2: 10 years





Phase 3: 25 years

Phase 4: 50 years



- Residential
- Civic Use
- Office
- General Research (High Bay)
- Large Format Flex Space
- High Tech Scale Up
- Parking

Each scenario was developed through the master planning process to demonstrate proposed growth over time and to identify key milestones for developable floorspace.

TOP JOBS BY SCENARIO:

OFFICE WEIGHTED

9,800 CONSTRUCTION

9,400 R&D

9,100 PRODUCT DESIGN

700 SEMICONDUCTOR MFG

400 ELECTRICAL TESTING/QA

INDUSTRIAL WEIGHTED

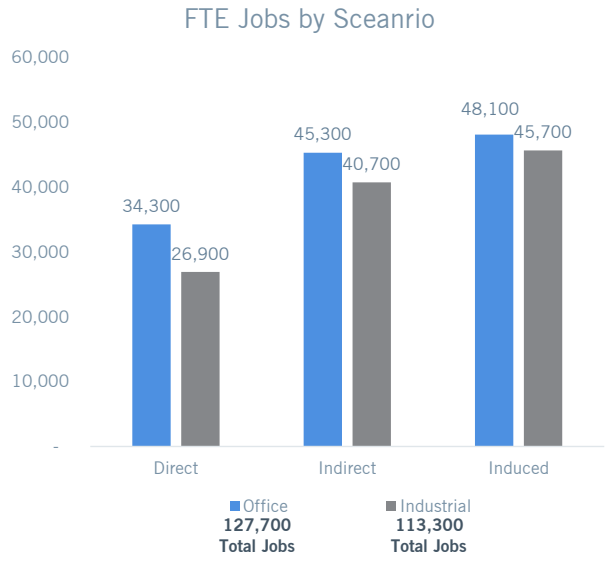
7,300 R&D

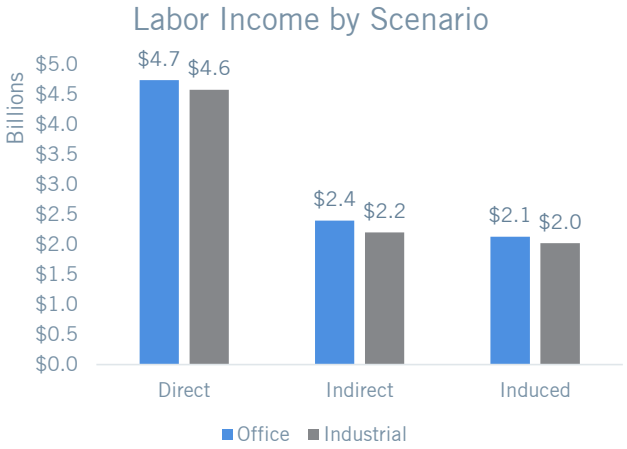
6,500 PRODUCT DESIGN

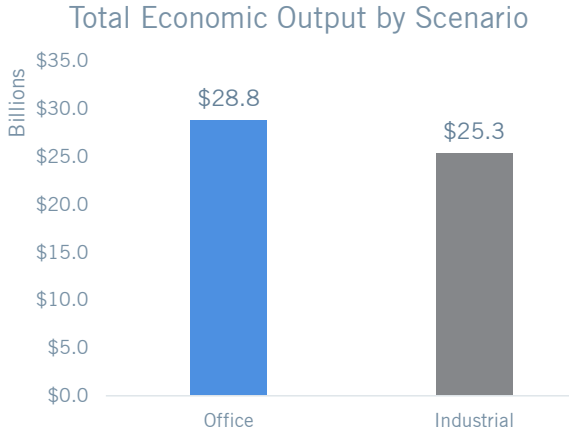
5,300 CONSTRUCTION

1,500 PRINTED CIRCUIT MFG

800 ELECTRICAL TESTING/QA







TAX REVENUE MODEL

The economic impact model conveys the high-level economic benefit to Osceola County. In contrast, the tax revenue model is designed to show the detailed tax revenues that can be expected to be generated for the various taxing entities within the County, including:

- Osceola County General Fund
- CRA
- School Board
- South Florida Water Management Board

To provide Osceola County with better direction, the tax revues are considered at three key time intervals: after 10 years, 25 years, and 50 years. This provides a clearer picture of how the tax revenues will grow over time as the development grows, and ultimately reaches full build-out at the 50-year mark.

Furthermore, the tax revenues are detailed for commercial uses, industrial uses, and residential uses. For this reason, the tax revenue model considers the same scenario assumptions as the economic impact study, i.e. the office weighted scenario and the industrial weighted scenario. Within the analysis, both real and tangible property tax collections are considered.

Similar to the economic impact study, all findings for the tax revenue model are presented as cumulative for each given time period: 10-years, 25-years, or 50-years. The tax revenues are net present values and have been discounted to represent 2016 dollars.

It is important to note that these projects are based on the development scenarios as currently envisioned. As the different phases of the development come on-line, the actual impact and tax revenues will adjust alongside the "on-the-ground" development fluctuations that occur as part of any large scale development.

To accommodate the actual development over time, the economic impact study and tax revenue projections should be updated every couple of years to capture the actual impact, rather than the impact based on pre-development estimates.

TAXABLE VALUE OF PROPERTY AT FULL BUILD-OUT:

$1.5 BILLION TO $2.1 BILLION

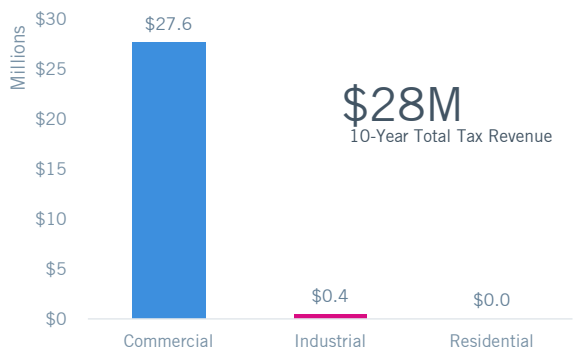
50-YEAR TOTAL CUMULATIVE TAX REVENUE:

$781.2 MILLION TO $831.2 MILLION

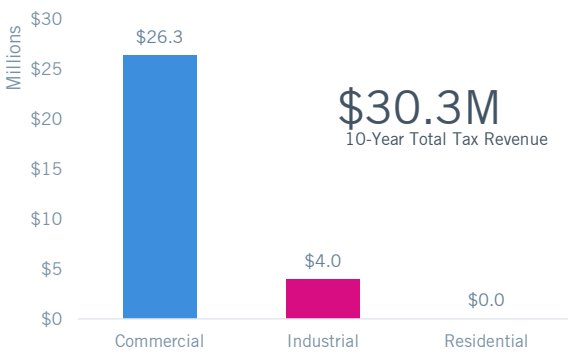
NeoCity has the potential to become Osceola County's largest tax payer based on total taxable value of property.

TAX REVENUE MODEL (CONTINUED)

Office Weighted Scenario

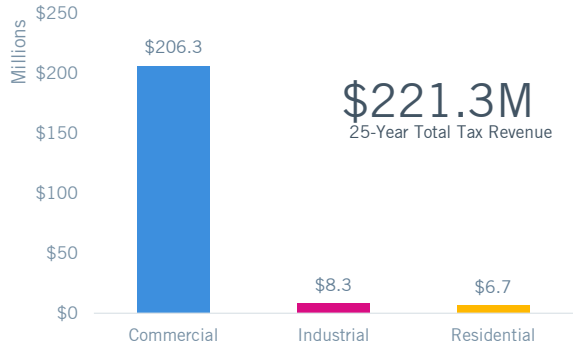


Industrial Weighted Scenario

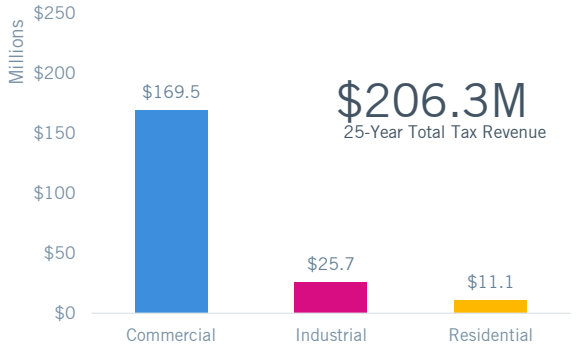


The projected tax revenue model provides a break down by commercial industrial and residential property tracking with the two development scenarios. Models such as this allow for a view of the potential NeoCity has to contribute to the tax base of the County. In order to fulfill this potential the NeoCity Maintenance District Board will need to steer development towards the modeled scenarios and development density identified in the Design Guidelines.

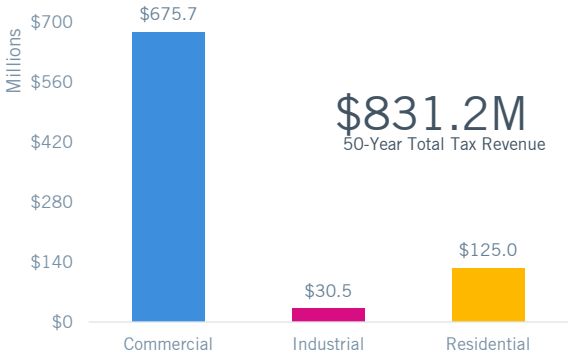
Office Weighted Scenario



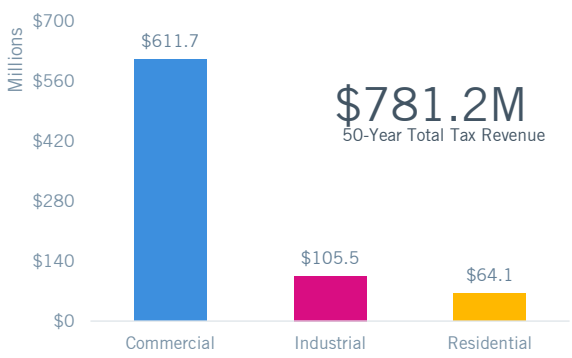
Industrial Weighted Scenario



Office Weighted Scenario

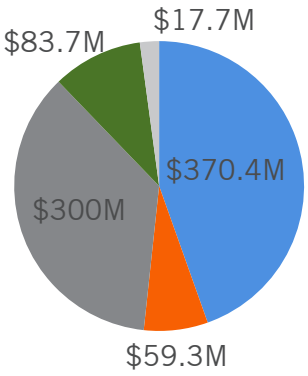


Industrial Weighted Scenario

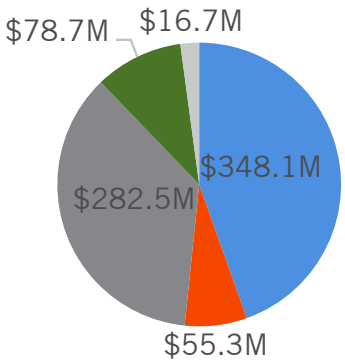


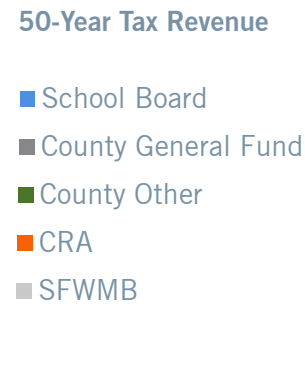
The NeoCity development offers a significant potential opportunity to provide additional tax revenue to both the County General Fund and the County School Board, providing support for additional facilities which will in turn support the continued population growth expected in Central Florida.

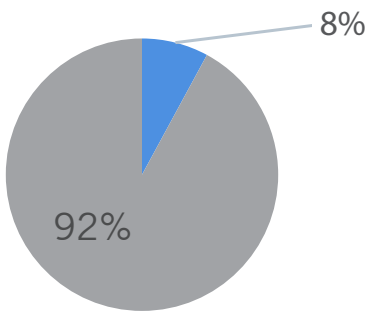
Office Weighted Scenario

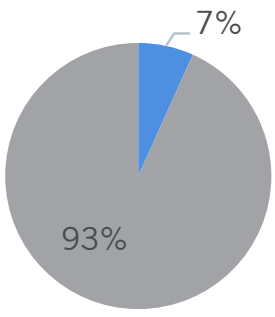


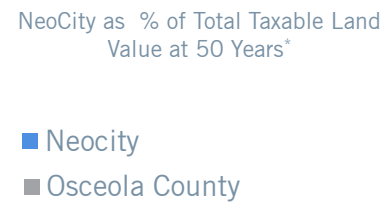
Industrial Weighted Scenario











MONITORING METRICS AND SUPPORT FOR SUSTAINABLE PROJECTS

Monitoring Metrics and Report Cards

The NeoCity Maintenance District Board as part of its oversight of NeoCity must establish a way of ensuring that the investment in the district remains stable and moves in the direction intended by the vision underlying the Master Plan. In their continued review of the development, the master planning team recommends several metrics in addition to economic impacts that should be monitored on either an annual or bi-annual basis to confirm that the Master Plan is performing in achieving the design intent. If these metrics vary too greatly from the target then the Maintenance District Board may take action through amendments to the Design Guidelines to either relax or tighten guidelines which are the source of the issue. These metrics are related directly to the design principles and the ideas behind the Master Plan as a whole. These report metrics complement the requirements of the Design Guidelines as a retrospective view on how the sense of place for NeoCity as a whole is emerging, rather than a review of an individual development at time of implementation.

Integration of Water

Percentage of developments which include some or all of the following low impact design solutions: 1) rainwater catchment, 2) stormwater infiltration gardens, 3) green roofs, and/or 4) low irrigation landscapes.

Gateways and Connectivity

Number of entrance points provided into the district for different transportation modes including pedestrians, bicycles, and vehicles. Do they all have clear wayfinding and signage appropriate to these modes?

Block Density

What is the average height of development within NeoCity? Is this an increase from the previous report card? What is the average street set back of buildings? Is this a reduction from the previous report card?

Activity Nodes

What number of service uses are provided within the district? Where is the greatest concentration of active uses?

Matrix of Uses

Which uses have located within NeoCity since the previous report card? What is the job creation potential from the uses located within the district? How many social/community events have been programmed in the past year? What was the attendance at these events individually and in aggregate?

Support for Sustainable and LEED Projects

The Master Plan does not seek to achieve LEED certification, however, there are significant qualities of the urban design which would support future development within NeoCity should they seek to achieve LEED or equivalent environmental certification. These areas include:

Access to Quality Transit / the addition of the bus routes through NeoCity provide the opportunity for good connectivity to the local area and to the SunRail station in Kissimmee.

Transportation Demand Management / The District Parking Management approach outlined in the Master Plan will allow for shared parking and alternatives to single occupancy vehicles.

Access to Civic and Public Spaces / Public open spaces of a usable size have been placed within NeoCity to ensure residents, visitors, and employees have access to a variety of open space types.

Local Food Production / A 10 acre urban farm is located within NeoCity which could support an on-site farmers market.

Tree-lined and Shaded Streetscape / The street sections detailed in the Design Guidelines include a variety of street tree planting options, shading sidewalks and open spaces.

Rainwater Management / Stormwater management and low impact design is integrated into the structure of the master plan. New buildings will be able to connect into this framework and also provide their own stormwater management in the form of green roofs and other rainwater catchment techniques.

Walkable Streets / The Design Guidelines provide many features which contribute to creating walkable streets such as active frontages, main entrances on public streets, building heights which provide enclosure, and minimal building setbacks.

Bicycle Facilities / The inclusion of slow speed streets and a dedicated bicycle facility provide a high quality connection to a bikeable network for all developments within NeoCity.

The NeoCity Master Plan was prepared for
Osceola County, Florida by:

PERKINS+WILL

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In conjunction with:

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transforming ideas into reality

Point A Consulting
From Point A to Point B and beyond

angeloueconomics


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