VIRGINIA/LAKE HIGHLAND TRANSPORTATION & LAND USE STUDY

STRATEGIC PLAN

FINAL REPORT - FEBRUARY 21, 2017

ACKNOWLEDGEMENTS

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Lake Formosa Neighborhood Association
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All members of the community who participated in this planning process

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1. INTRODUCTION

1.1 PROJECT

The Virginia Drive corridor has an abundance of charm and character with a variety of interesting businesses, and nearby parks, trails, and lakes. The adjacent residential neighborhoods boast brick streets, mature tree canopy, and a mix of historic and new homes. The corridor's central location means that it is not only a destination, but also a common route between various downtown areas. The goal of this project is to develop a multimodal transportation network that supports the community's vision of sustainability, vitality, mobility, and safety within the corridor; promotes responsible development and re-use; and provides a framework that encourages economic investment.

This study considers a variety of factors, including character, land uses, parking demand, projected development, transportation networks and travel patterns. These elements, coupled with robust public participation and input, help to create a vision for the area. Based on this vision, the study identifies various strategies needed to implement the community's goals.

1.2 STUDY AREA

The study area is generally bounded by E. Princeton Street to the north, E. Marks Street to the south, N. Mills Avenue to the east, and N. Orange Avenue to the west. As shown below in Figure 1, this boundary (shown in blue) defines the transportation study area, while a smaller boundary (shown in red) defines the land use study area.

1.3 OBJECTIVES

The objectives of the project, as summarized in the Vision Statement, provide a framework for the integrated, comprehensive, and holistic planning approach required to enhance connections between people, place and opportunity:

> *The long-range vision is to strategically guide transportation investments and development activities to preserve and strengthen the historic, cultural and social character of the Virginia/Lake Highland area while encouraging new economic opportunities that create a diverse, vibrant and sustainable community that features a mix of small businesses, residential choices and a robust multimodal network that reduces conflicts, improves safety and improves access and mobility for all users.*

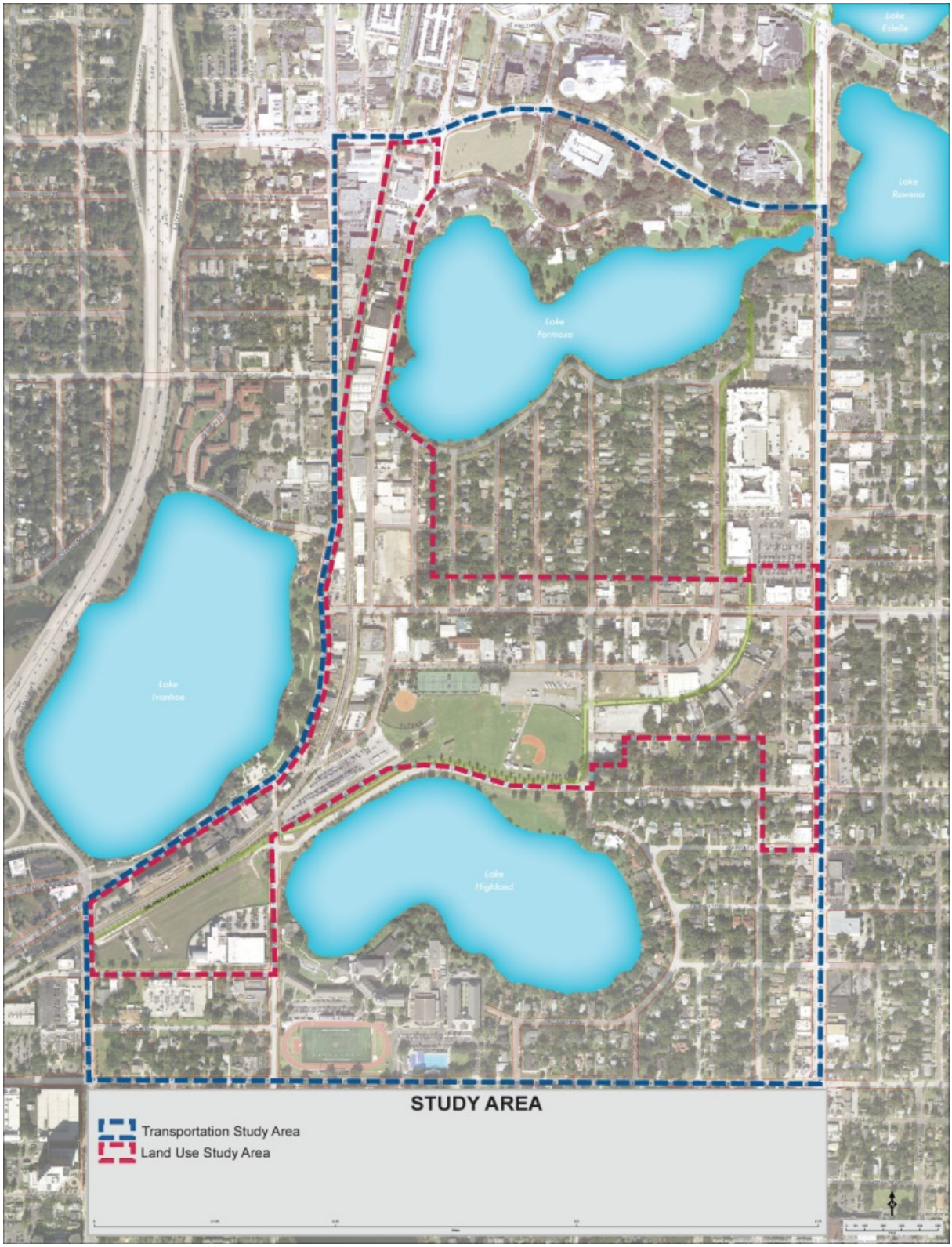


Figure 1 - Study Area

2. EXISTING CONDITIONS

2. EXISTING CONDITIONS (WHAT IS IT NOW?)

2.1 LOCATION

The Virginia/Lake Highland area is the epicenter of urban north Orlando, with College Park to the west, Audubon Park Garden District and Baldwin Park to the east, and the north quarter and downtown to the south. Virginia Drive connects the Ivanhoe Village Main Street District and the Mills 50 Main Street District and the growing extension of both the N. Orange Avenue and N. Mills Avenue commercial corridors, as well as a unique collection of neighborhoods (see Figure 2).

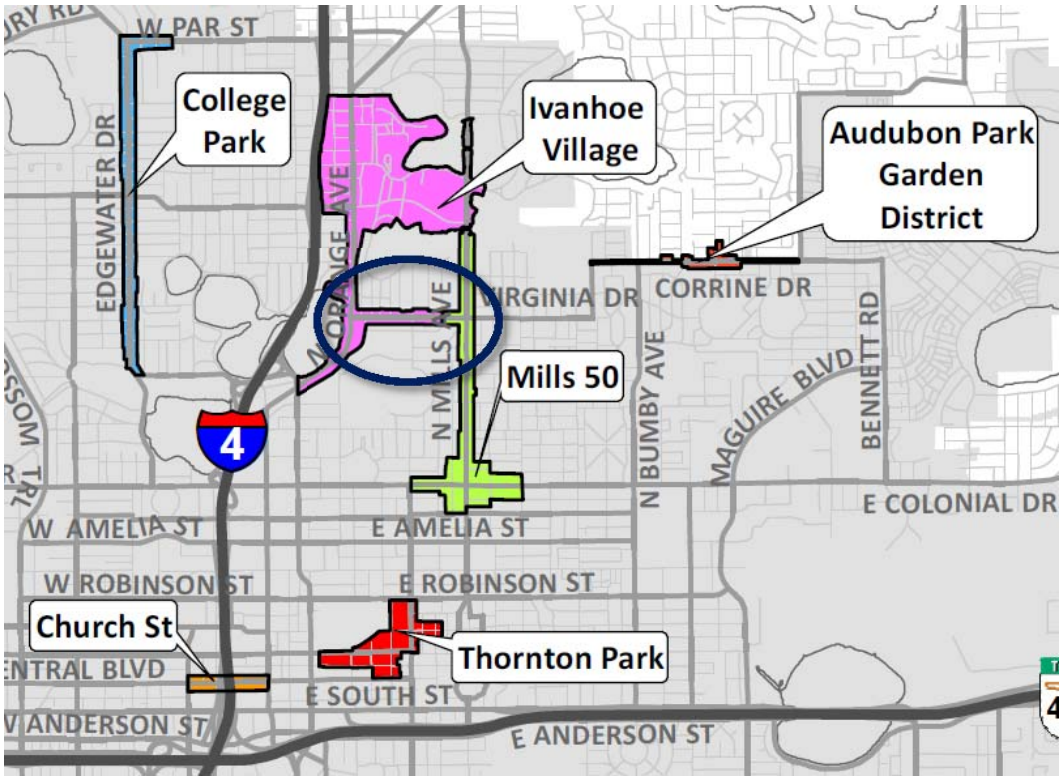


Figure 2 - Location Map

2.2 LAND USES

The study area is anchored by the Lake Formosa and Park Lake/Highland neighborhoods, both substantially developed Traditional City areas containing a mix of single-family residences, multi-family units, and open spaces. Offices, retail, studio, institutional, civic and industrial uses are located on the fringes of the study area, with the most intense development occurring around the major intersections of Virginia Dr./Orange Ave. and Virginia Dr./Mills Ave. (see Figure 4).

Figure 3 – Mixed Use Development

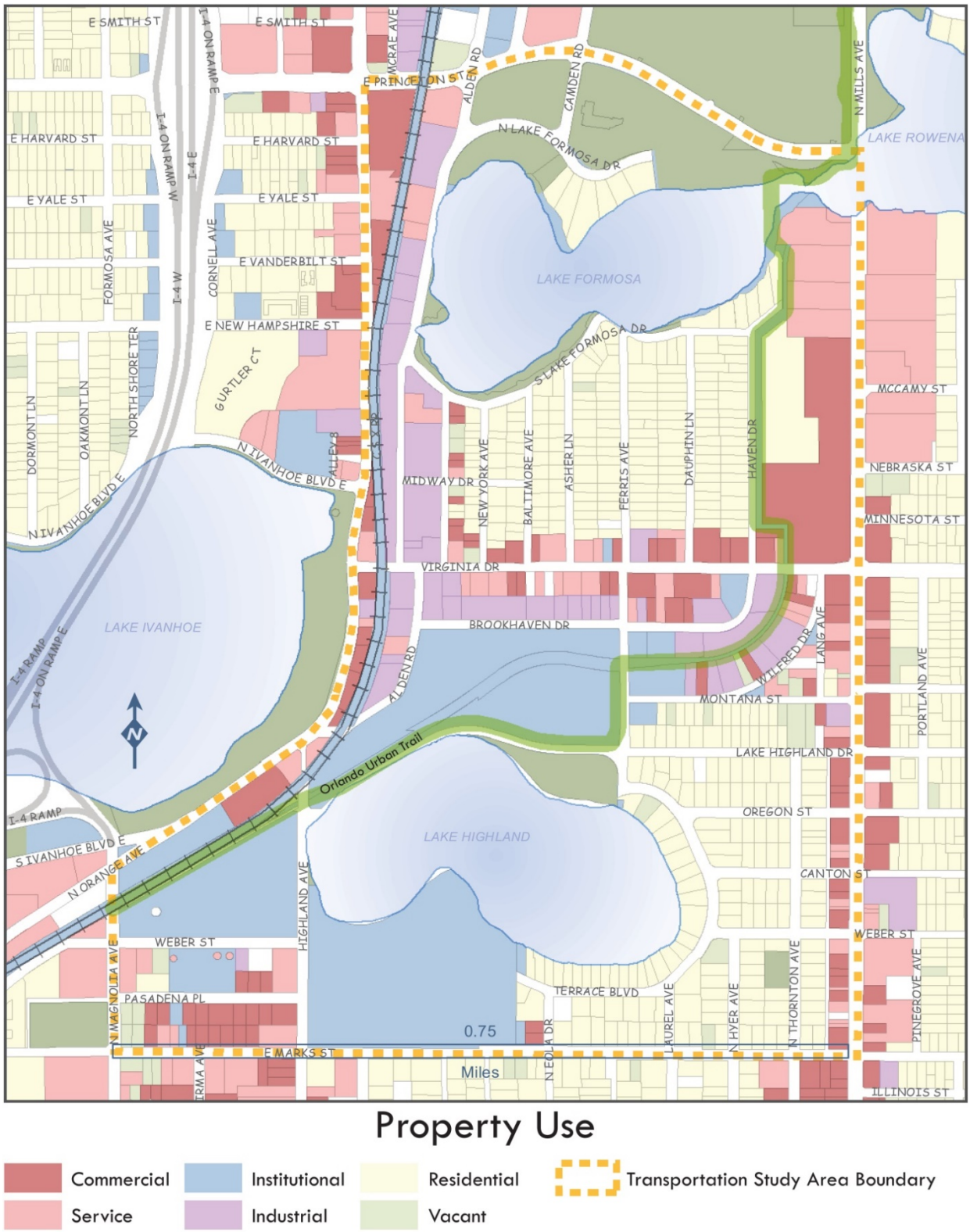


Figure 4 - Existing Land Use

2.3 TRANSPORTATION

The study area has a well-connected framework of multimodal accessibility (see Figure 5), including:

By car:
- I-4 access via the Princeton Street and Ivanhoe Boulevard interchanges
- Surrounded by major arterials: Orange Avenue, Princeton Street, Mills Avenue and Colonial Drive

By transit:
- Currently served by LYNX routes 102 (Orange Avenue) and 125 (Mills Avenue)
- LYMMO Orange Line that serves the North Quarter has a stop just outside the study area at the Senior Recreation Complex on Marks Street
- Proposed future extension of LYMMO that links the study area to downtown, SunRail stations, College Park, Florida Hospital and other LYNX connections
- Florida Hospital SunRail station is within a ¼ mile walk of the study area

By bike:
- Orlando Urban Trail traverses the study area
- Surrounded by existing and proposed bike lanes, trails and signed on-street routes

By foot:
- A 10-minute walk reaches most of the commercial nodes in the study area

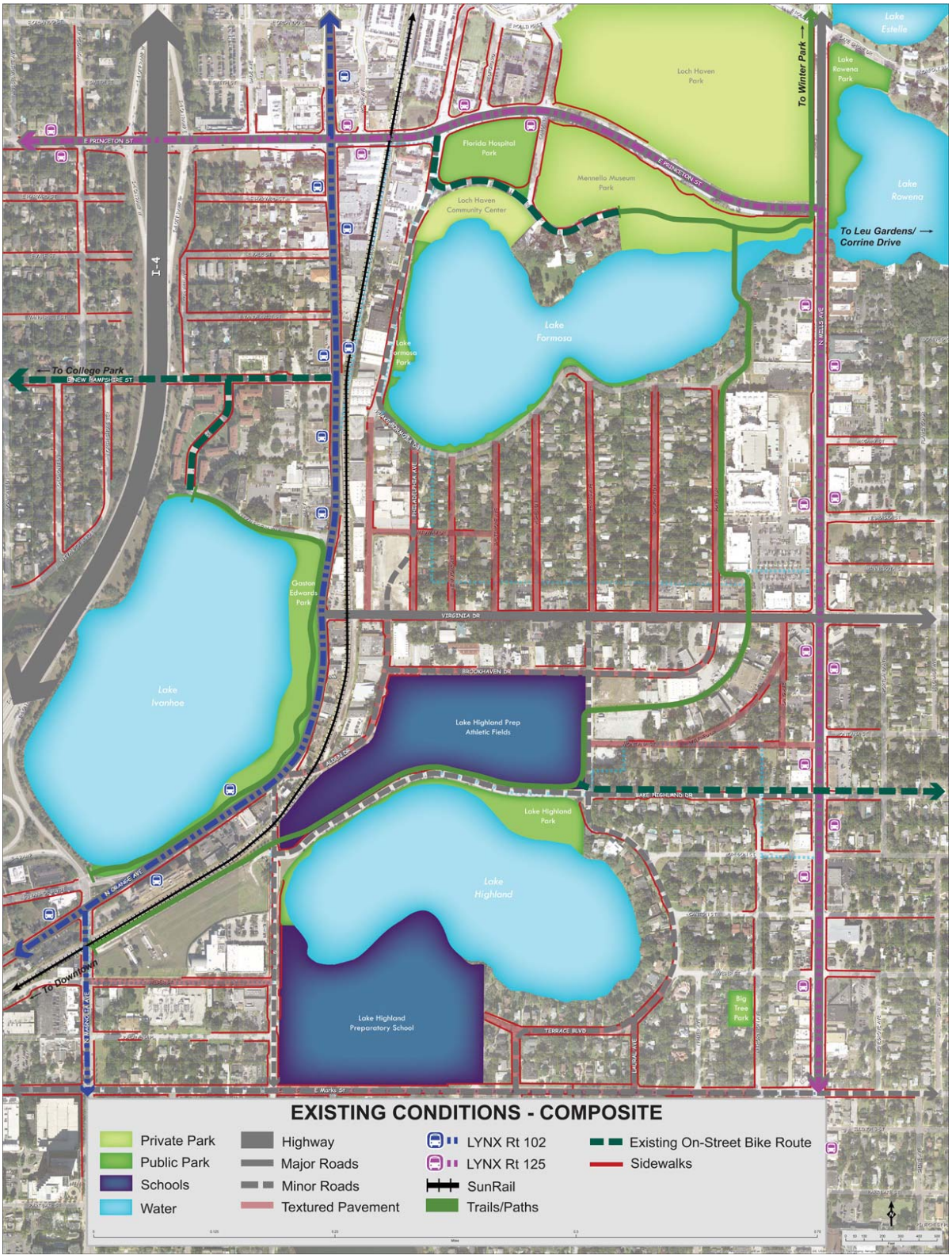


Figure 5 - Transportation Systems

2.4 COMMUNITY

In addition to the established, active and desirable residential neighborhoods, the Virginia Drive corridor is highly favorable for urban development, particularly targeting younger people. Key amenities are already in place and growing, such as biking, breweries, bars/restaurants, and shops (see Figure 6). Demographics are comparable with leading urban shopping districts in the region and major development projects are underway and planned that capitalize on the location and amenities. The city's efforts to improve multimodal transportation quality of service and the public realm will only increase the area's attractiveness for development and investment.

Figure 6 - Community Destinations

2.5 VALUES

A vision for the future of the Virginia/Lake Highland area that transcends the status quo and has staying power beyond the short term must be based on core values within the community. For the Strategic Plan to achieve the desired outcomes, it must be aligned with these defined core values. Values endure, and are not likely to change over the

short term. Thus, they provide a good framework for guiding the community as it moves forward to accomplish the objectives identified in the Strategic Plan.

To uncover the community's shared values, the City and the consultant team hosted three workshops to explore existing conditions and future goals. The workshops were held on August 1, 2016; September 20, 2016; and October 26, 2016. Notice of the workshops was sent out via email, Main Street District contact lists, NextDoor web site posting, and the City's web site. The first workshop covered existing conditions and discussion of issues and opportunities; the second workshop covered future conditions and development alternatives; and the third workshop presented the draft Plan recommendations.

The methods to gather information included surveys, comments and feedback provided on maps and plans, and comments and discussion from meetings. The information that was gathered from the community serves as the basis of the recommendations contained in this Plan.

The values below were identified as most important by the community (see Appendix I for more detailed summaries):

- **Character** – quaint homes, mixed uses, brick streets, variety of merchants
- **Proximity** – close to downtown and Winter Park, centrally located
- **Mobility** – easy to walk or bike
- **Vibrant** – diverse, creative, edgy
- **Beautiful** – parks, lakes, trees

The community was also asked what they saw for the future, and what they want to be in 20 years. The responses reinforced the values they hold today:

- **Destination** – a mix of uses, thriving urban neighborhood, vibrant and eclectic with a diverse group of people and activities
- **Character** – unique small town feel, more grown up version of what is there today
- **Walkable** – pedestrian-friendly, connected network of routes
- **Bicycle friendly** – access to a variety of connected routes and facilities
- **Green** – sustainable environment, cleaner lakes

In the future, the Virginia Drive area should be home to a variety of unique and vibrant businesses, easily accessible to nearby residents. Redevelopment should respect the established character of the neighborhoods. Accessibility by bicycle, on foot or by transit should be safe and convenient. Vehicular access and parking should be convenient, but not necessarily be as convenient as in a suburban setting. Shade and greenery should be plentiful, and outdoor public spaces such as parks and trails should be highlighted and celebrated.

3. VISION FRAMEWORK

3. VISION FRAMEWORK (WHAT CAN IT BECOME?)

Members of the community who attended the workshops identified many different challenges and opportunities facing the study area. Those elements provided a context that guided the development of scenarios and alternative strategies that were considered for the Strategic Plan. Figure 7 below depicts the contextual relationships that form the framework for this Vision:

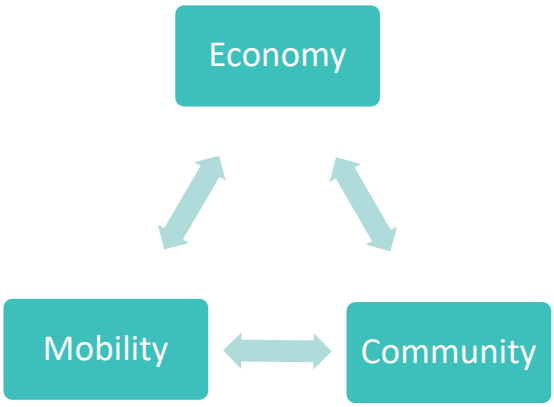


Figure 7 - Vision Relationships

3.1 CHALLENGES

The key challenges of the Virginia/Lake Highland area reflect its unique character and location within the downtown urban area. In many ways, these challenges are the result of the area's success over the past decades and the transitions that have occurred in terms of overall growth. The following challenges were identified by the community as context for the project:

- Increase pedestrian and bicycle safety – along roads, on sidewalks, and at intersections
- Improve connectivity for both pedestrians and bicyclists
- Provide appropriate transitions in height and scale between neighborhoods and non-residential uses
- Add parking, especially near the Orlando Urban Trail
- Discourage neighborhood cut-through traffic

- Slow down traffic
- Provide appropriate wayfinding to help improve movement through the corridor
- Provide more community spaces and parks
- Provide appropriate lighting for a variety of modes of travel and activities
- Understand retail competition in the area (Winter Park Village and Park Avenue areas) and encourage businesses that complement the study area

3.2 OPPORTUNITIES

While improvements to the urban form in the study area will include a variety of specific implementation strategies, the Vision inspires the future of the Virginia Drive area overall by:

- Promoting mixed-use and commercial development that complements the character of the existing neighborhoods, maintains human scale and provides appropriate transitions and buffers between different uses
- Encouraging buildings on primary roads to front the street and provide a pedestrian-friendly and lively public realm that is active and safe both day and night
- Fostering an attractive and well-maintained sidewalk zone for pedestrians that provides amenities, shade, and streetscape elements to attract activity and create social interaction
- Adding distinctive design features, architecturally, in the public realm, and as gateway features, that reinforce the corridor identity
- Improving safety for all users by slowing traffic, narrowing roadway width, restoring brick pavement surfaces, creating buffers between vehicles and pedestrians, and enhancing street crossings
- Strengthening and unifying multimodal character and promoting alternative forms of movement by connecting and providing seamless integration of pedestrian, bicycle, roadway and transit networks and making them accessible to users of all ages and abilities

3.3 VISION FRAMEWORK

The project vision established the corridor goals and provided a guide for future planning tasks. It provided a framework that identified general locations and synergies for roadway modifications, non-motorized facility treatments, access points, connections and land uses. It is intended to clarify and confirm the direction of key development, transformation, mobility and economic growth opportunities that will enhance and sustain the quality of life for all residents and stakeholders and strengthen the competitiveness of the area as a whole. The elements of the Vision may evolve over time, but its overall goals should remain constant.

The Vision Statement is the framework for the strategic planning that follows:

> ***The long-range vision is to strategically guide transportation investments and development activities to preserve and strengthen the historic, cultural and social character of the Virginia/Lake Highland area while encouraging new economic opportunities that create a diverse, vibrant and sustainable community that features a mix of small businesses, residential choices and a robust multimodal network that reduces conflicts, improves safety and improves access and mobility for all users.***

3.4 WORKING VISION MAP

The Working Vision Map (see Figure 8) served as a useful organizing tool for further development of concepts and strategies as part of the planning process of this project. It is a fluid document that provides guidance for achieving both short- and long-term goals and it defines the future development direction of the corridor's existing and emerging nodes, gateways and focal points. It serves as a basis for confirming or refining various design elements and policy considerations through additional analysis and it helps create identity and a well-connected community fabric.

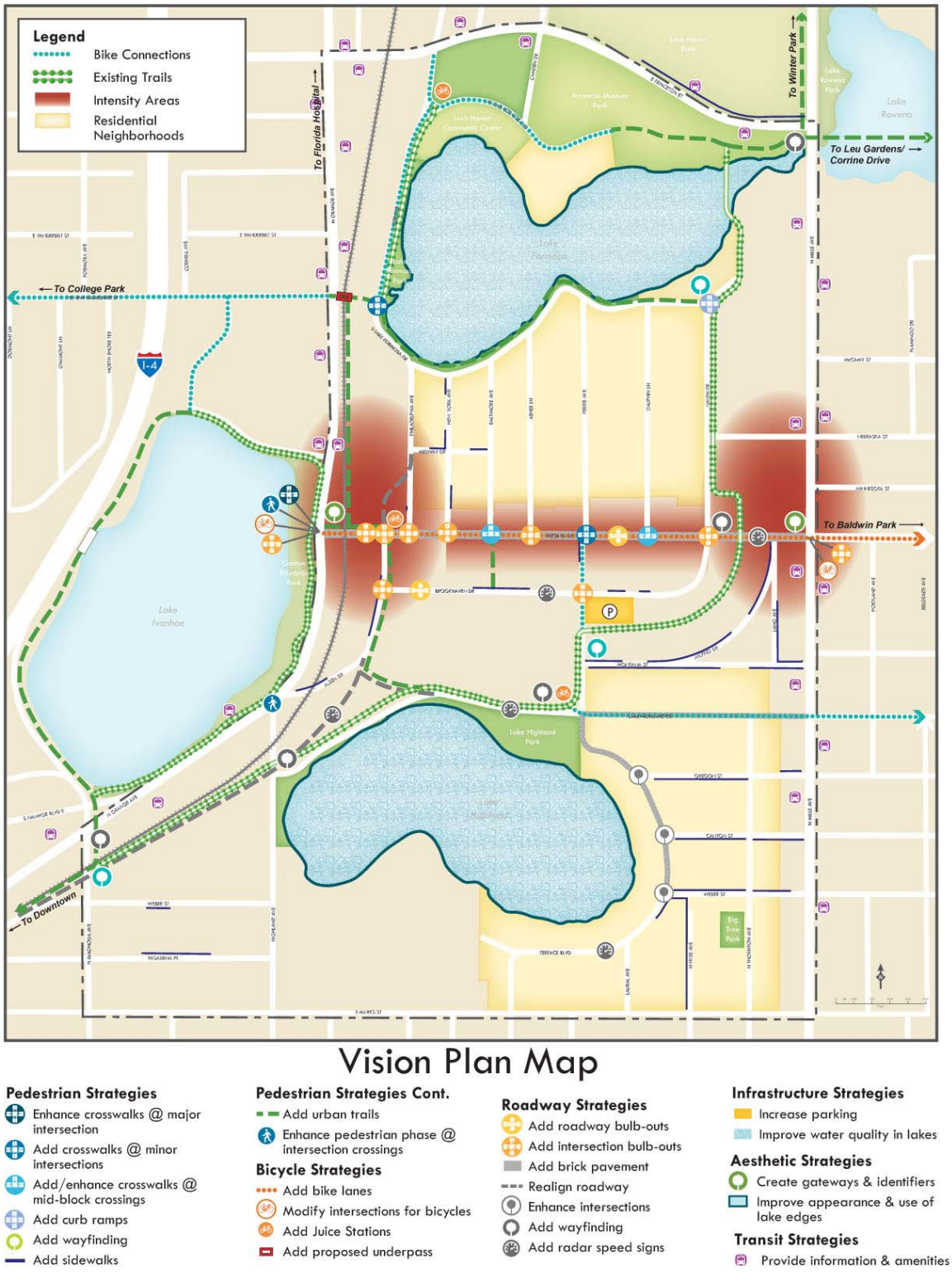


Figure 8 - Working Vision Map

4. VISION ELEMENTS

4. VISION ELEMENTS (HOW TO MAKE IT COME ABOUT?)

Great neighborhoods are much sought after, but they are also fragile. Orlando is a living city – it grows, evolves and moves. It is important to encourage improvements and additions that contribute to the livability of the area, but ensure that inevitable changes are in keeping with the scale and form established and desired by the community. Once character is gone, it cannot be replaced.

The Vision for this project is meant to guide the City's planning and development activities. It is intended to clarify and confirm the direction of key redevelopment, revitalization, transportation connectivity, and economic growth goals that will enhance and sustain the quality of life for the residents in the study area. The Vision will continue to evolve, but its overall direction and key recommendations spring from the values defined by the community.

The Vision that emerged for the Virginia/Lake Highland area is a recognition of the importance of strategically managing growth to maintain neighborhood character while still encouraging new business opportunities, developing feasible transportation networks and enhancing connections, and preserving the beauty of the natural environment that this area values. These interconnected elements are described in more detail below:

4.1 PROTECTING CHARACTER

Character

What gives a community its unique character and personality? It is a combination of location, people, land uses, landmarks, appearance, age, scale, and layout. Community character is equal parts of history, context, form, natural features, social activity, community involvement and culture. A community can also be defined by its geographic boundaries, by roadways, or by natural features such as lakes. The Virginia/Lake Highland area's character is shaped by its proximity to downtown Orlando, Mills Park, Loch Haven Park and Florida Hospital, among others. The Virginia/Lake Highland area is within the Ivanhoe Village Main Street District and a small portion of it is within the Mills 50 Main Street District. It is also influenced by the historic pattern of its industrial and commercial development.

A distinctive community has an identity and a visual image that sets it apart. The character of the Virginia/Lake Highland area is defined by the relatively compact human scale of the buildings, the grid layout of streets and blocks, the brick streets, large old

shade trees and the natural beauty of lakes. The treasured characteristics of Orlando's Traditional City are well represented in this area, such as buildings close to the street, parking lots behind the buildings with driveways extending to side streets or connected through cross-access, and an urban form with many destinations within a 5-10 minute walkshed.

A compact mixed-use urban form such as that found in the study area is a desirable trait for a multimodal district. Sustainable development guidelines (such as LEED ND and EPA's Smart Growth Principles) focus on density, urbanity and mixed uses to reduce dependence on the automobile and support other mobility choices. In fact, urban density cannot function without alternatives to the automobile. The study area already has many of the building blocks to meet these goals, including a gridded street network, buildings brought up to the street frontage and access to bike trails and transit.

Identity

The Virginia/Lake Highland area is decidedly urban, locally historic, authentic and walkable. The Traditional City urban form is consistent in the residential areas and commercial main streets. To get a better feel of the character and identity of the study area, it is important to understand its history and growth. There are several distinct areas within the Virginia/Lake Highland area that have their own unique identity based on both land use and architectural patterns, including:

The Park Lake/Highland and Lake Formosa neighborhoods are a part of old Orlando, mostly platted before the Great Depression in the 1930's and developed prior to World War II. These neighborhoods are known for their early 20th century bungalows on tree lined streets. Other styles include Prairie, Colonial, Mission, Mediterranean and Tudor Revival (see Figure 9). These vintage homes are generally modestly-sized and often have gabled front porches. The areas are representative of Orlando's older Traditional city neighborhoods and are already well-protected by the City with design standards and policies.

Figure 9 - Residential Character

Mills Avenue carries a lot of traffic on its four lanes, with a center turn lane and on-street parking. The on-street parking helps protect pedestrians from traffic, but it is not a very pleasant street to walk. Sidewalks are continuous on both sides of the street, but are narrow and abutting the curb, with few palms and no shade trees. The street view is cluttered with large overhead power lines and signs. The buildings are generally one-story mid-century plain commercial sheds (see Figure 10). The Track shack building at 1104 N. Mills Avenue is a circa 1950's Streamline Modern architectural style complete with a steam ship smoke stack. Other older buildings include 1200 N. Mills (1926), 1322 N. Mills (1930) and 1110 N. Mills (1947). The Mills 50 area has embraced a hipster/urban persona with modernist and fantastical artwork that is characterized as edgy and quirky.

Figure 10 - Mills Avenue Character

The **North Orange Avenue** area has a different feel than Mills Avenue – slower, narrower with two lanes, a turn lane and on-street parking. It is known for its antique

shops and small unique restaurants (see Figure 11). The stretch from Alden Road to Virginia Drive has the advantage of views along a lakefront park on one side with early 20th century two-story buildings on the other along the curving street, a unique setting not found elsewhere in Orlando. The original Ivanhoe Row at 1211-1292 Orange (built in 1945) is distinctive because of the rhythm of building articulation of the two-story facades along the street, with ground floor transparency and second floor balconies. 1235-1298 Orange is also a great historic 1925 building with plenty of transparency, balconettes fronting French doors on the second floor and recessed doorways with decorative lighting fixtures and canopies. Another interesting historic building is 1487 Orange, known as the Ivanhoe Village Business Center. This Art Deco style building was constructed circa 1938.

Figure 11 - N. Orange Avenue Character

The **Virginia Drive** area is a shared commercial district that joins together the Lake Formosa and Park Lake/Highland neighborhoods. Virginia Drive is part of the Ivanhoe Village Main Street District, and has a more low-key personality than Orange Avenue due to a lower density, spaces between buildings, more trees, a mix of small local businesses and a functionally practical temperament. The road is two lanes wide with a parkway and sidewalks on both sides. The parkways have a mix of live oaks and crepe myrtles, with a few palm trees. The street is comfortable to walk because vehicle speeds are fairly slow, but it is difficult to cross due to steady traffic and a lack of stop signs or crosswalks. Virginia has a main street urban form with small blocks on the north side of the road and longer blocks on the south side of the road. It only has on-street parking in a few isolated spots. Buildings are set relatively close to the street and oriented to it (see Figure 12). Most are plain without much style or ornamentation. There are some gaps between buildings that break the continuity of the urban form. Virginia Drive evolved as a commercial district after World War II for the same reasons it functions as one today – it is a connector street and adjacent to residential uses. However, there are a couple of historic residential style buildings on Virginia Drive, so the street may have been more residential at the beginning of the 20th century. The

oldest buildings are bungalow style residential, built in 1925-1930. Most of the commercial buildings were constructed in the early 1950s. Other commercial buildings came along in the 1960s, such as the popular Hide-A-Way bar (circa 1960). A few others have been built from the 1980s on – these buildings don't fit the Traditional City commercial pattern but add a quirky mix of styles and urban form to the corridor. Because of this variety, Virginia Drive has developed an eclectic "village" feel.

Figure 12 - Virginia Drive Character

The **Brookhaven Drive** area has a mix of industrial, commercial and warehouse style buildings. The warehouse and industrial buildings were built near the old Dinky Line railroad tracks, which opened for service in 1889 before there were cars. The tracks were removed by 1969 due to the popularity of the automobile and the rail right-of-way remained vacant until the Orlando Urban Trail was built using much of the old track path. The road is two lanes wide with a sidewalk that stops and starts on both sides. It has on-street parking along the south side of the road. There are street trees – some are of significant size. Development along Brookhaven predominantly meets the Traditional City commercial development pattern of building placement close to the street with parking in the rear. These are simple, utilitarian buildings without much exterior ornamentation (see Figure 13). The exception is the oldest building – 543 Brookhaven with Italianate decorative motifs (1925). This building, along with 615 Brookhaven (1925), are scheduled for razing for new development. 727 Brookhaven, a residential style building, was built in 1935, with other buildings dating from the 1940s to 1960s. Most buildings in this area have a mix of architectural elements typical of the industrial style, which include square or rectilinear shape, brick or masonry and metal materials, steel beams, metal casement windows, truck loading bays and large overhead door openings. Later 20th century buildings introduced more modern materials such as aluminum siding and corrugated metal. The Brookhaven area is now a very small remnant pocket of industrial zoned land. It no longer has manufacturing businesses except for a T-shirt printing business; instead, there are several small

warehouse/showroom or service type businesses. The Lake Highland Preparatory School athletic fields border the south side of this area.

Figure 13 - Brookhaven Drive Character

4.2 LEVERAGING GROWTH AND DEVELOPMENT

Encouraging sustainable and appropriate growth and investment is a principal concern of residents so that neighborhoods can retain their character and continue to flourish and serve as the stable foundation for the future, while ensuring that changes in adjacent areas keep the scale, form, and composition of the area and respect its past. Growth within the community vision includes several considerations:

Market Analysis

The Virginia Drive location is highly favorable for urban development, and there are several trends and conditions influencing the potential for development of multi-family residential, retail and office in the study area (see Appendix G for more detailed information):

- Future demand exists for more multi-family housing, especially before 2030. After 2030, the Virginia Drive area will likely be built out, and downtown development will likely be shifting focus to areas such as the Creative Village and the Sports Entertainment District.
- Office and retail development will mostly be limited to renovation and re-tenanting of viable buildings due to parcel size constraints. Limited building stock means that some unconventional spaces may be used for offices – converted homes, storefronts or warehouses. Target businesses will be small, independent, creative and unique. Viable street-oriented retail must front on Virginia Drive or be visible and accessible on a larger site, such as The Yard.

- Proximity to Florida Hospital suggests that medical offices could have potential if building space is physically feasible.
- Significant redevelopment will call for assembling larger sites, primarily because of the need for more parcel depth; the best prospects are on the south side of Virginia Drive, where through-block sites could be assembled that extend to Brookhaven Drive.

Several opportunities on vacant or underutilized sites have been identified where sites and/or potential parcel assemblages could facilitate future development activities (see Figure 14). Potential development programs based on the Moderate Growth Scenario (Figure 18) and the Substantial Growth Scenario (Figure 19) are also indicated:

- **Alden Road north - multi-family or townhome opportunities (area 1 on Figure 14\):** The market performance of the Yard will influence development decisions and land values. Property values are high enough that significant residential density may be needed to make redevelopment projects pencil out, although it depends on the price levels that can be achieved. The Blackton Family owner has expressed interest in redevelopment, and the site is assumed for future multi-family use in the GMP projections. The next 3 sites further north along Alden have appealing water views, but would probably need to be assembled together to achieve sufficient scale for profitable redevelopment.
  - Moderate: 60 MF units
  - Substantial: 100 MF units

- **Alden Road south - redevelopment opportunities (area 2 on Figure 14)**: While most of the current businesses seem compatible with the neighborhood, improvements to Alden Road and/or success of the Yard projects may influence property owners to consider reuse or redevelopment opportunities. Property values are higher and most buildings appear more substantial than on Brookhaven Drive (townhome opportunity area). All three LLCs have the same PO Box for their mailing address, which suggests there may be common ownership.
  - Moderate: 25 MF units, 15k SF office, 5k SF retail
  - Substantial: 25 MF units, 15k SF office, 5k SF retail

- **Virginia Drive - major mixed-use opportunity (area 3 on Figure 14)**: With current ownership patterns, a full half-block between the Yard-Crossman project and Ferris Avenue could be assembled from 6 owners. The market performance of the Yard-Crossman project will influence the likelihood of this opportunity and affect land prices. The primary question to consider is if another large building on Virginia would be considered in scale with the vision for the area.
  - Moderate: 100 MF units, 25k SF retail
  - Substantial: 225 MF units, 50k SF office, 25k SF retail

- **Virginia Drive - retail/restaurant/office opportunity (area 4 on Figure 14)**: There is slightly under 1 acre under single ownership on Ferris Avenue between Virginia and Brookhaven - the Virginia frontage is currently occupied by a used car lot and the Brookhaven frontage is currently occupied by 3 commercial businesses in low-value buildings.
  - Moderate: 3k SF retail
  - Substantial: 5k SF retail

- **Brookhaven Drive - townhome opportunities (area 5 on Figure 14)**: There are several parcels between Ferris and Virginia that could be developed into townhomes, either as one large project with a single developer or as multiple small projects. A single project, which would require acquisition from 4 owners, would probably be more profitable, and would help create a consistent residential feel along the entire block. The proximity to shops, restaurants, and the Orlando Urban Trail would be a strong draw for urban residential.
  - Moderate: 20 MF units
  - Substantial: 30 MF units

- **City/OUC sites - townhome opportunity (area 6 on Figure 14)**: Development of these sites near Brookhaven would depend on the brownfield cleanup status and the City's objectives for these sites.
  - Moderate: 10 MF units
  - Substantial: 15 MF units

- **OUC/City sites - redevelopment and reuse opportunities (area 7 on Figure 14):** The Weber Street frontage may not be conducive to high value development due to the visual impact of utility buildings and electrical infrastructure. Multi-family or office could have potential, fronting on Highland Avenue. Low traffic counts on Highland Avenue make retail less unlikely, unless tied into Orange Avenue and Lake Ivanhoe area. The Ivanhoe Building has good reuse potential due to character, lake views, traffic, and proximity to amenities. It is a historic landmark so it cannot be torn down for redevelopment. Depending on the adaptive reuse design feasibility, it could be used for office, multi-family or civic/cultural uses. Primary constraints are likely to be building-specific items such as interior layout, renovation needs and costs, potential remediation, and parking needs.
  - Moderate: 50 MF units, 30k SF office
  - Substantial: 75 MF units, 30k SF office, 65k SF retail

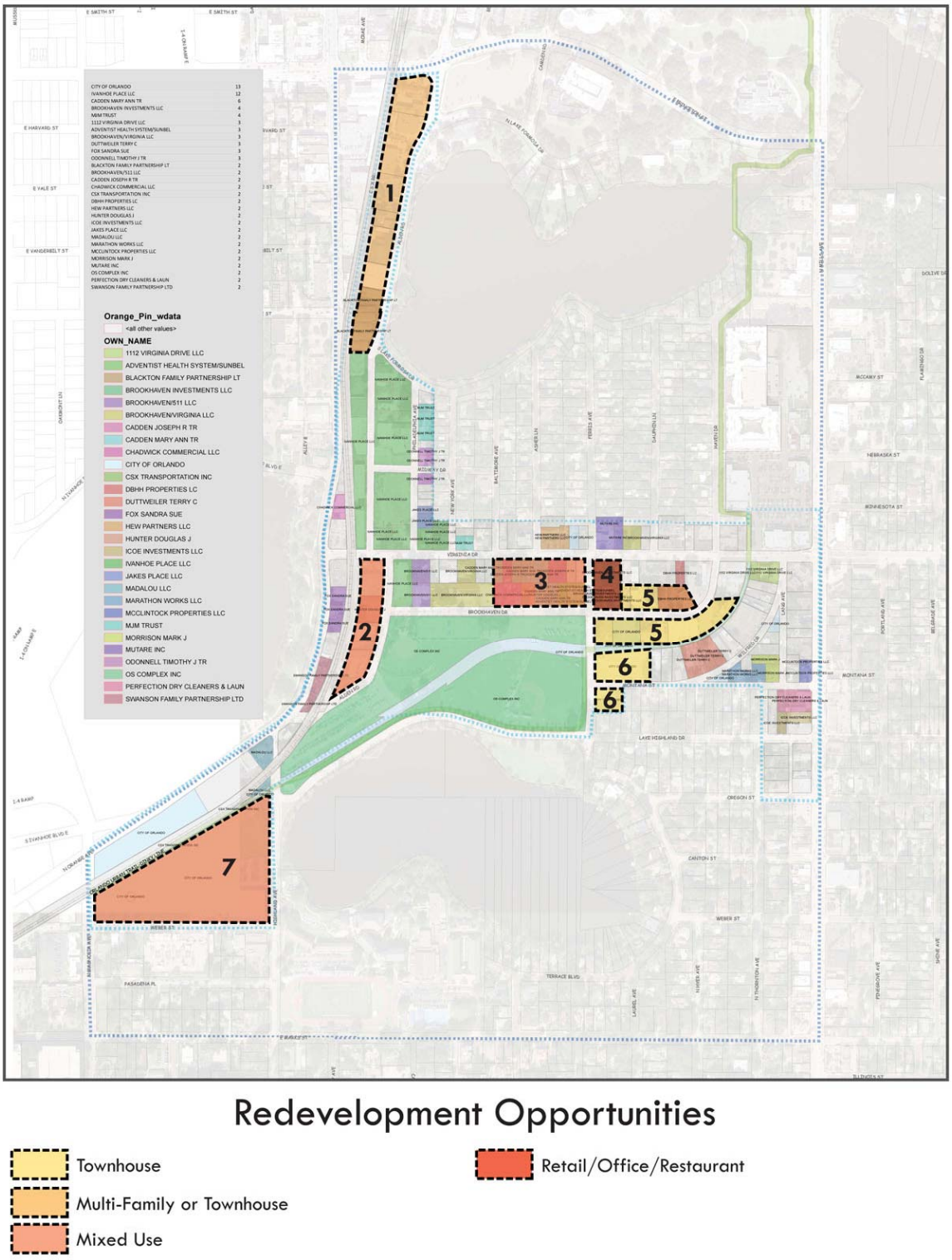


Figure 14 - Redevelopment Opportunities

Development Scenarios

The market analysis identified trends and conditions influencing the potential for development of multi-family residential, retail/commercial and office in the study area. It also identified opportunity sites and potential parcel assemblages where redevelopment could take place. Based on this work and feedback received during community meetings, two massing/scale scenarios were developed – a *Moderate Growth Scenario* (see Figure 18) that proposes development at a scale similar to the existing development and a *Substantial Growth Scenario* (see Figure 19) that proposes more robust development.

Based on approved projects, as well as the potential redevelopment sites, an expected development summary is shown below in Figure 15. Note that actual redevelopment may be greater or less than these totals, depending on land assemblage, zoning approvals, private investments and market conditions. This redevelopment summary was used to evaluate the transportation network as described in Section 4.5

Area	Dwelling Units	Office (SF)	Commercial (SF)
The Yard (approved)	630	0	57,000
Crossman (approved)	174	45,000	18,000
Other sites (see Figure 13)	470	95,000	100,000
Total	1274	140,000	170,000

Figure 15 – Development Summary

The growth scenarios work within the framework of existing zoning and Traditional City design guidelines that regulate main street corridors. One of the primary considerations in the land use study is the MU-1/T zoning along Virginia Drive. This is a mixed-use designation with the following specifics:

- Density of 15-30 du/ac
- Maximum FAR of 0.50 and building height of 35 feet (3 stories) by right, 75 feet (7 stories) by conditional use
- FAR is a base standard that may be increased by a density or intensity bonus
- Residential uses include attached dwellings, assisted living or nursing homes, residential care facilities and treatment/recovery facilities
- Commercial uses include child/adult day care, civic clubs, eating and drinking establishments, hospitals and clinics, hotels/motels, medical/dental labs, office, indoor recreation, retailing, personal services and temporary professional.

These densities/intensities are compatible with the adjacent neighborhoods, as are the height limits. While market forces will dictate the direction of private investments within this scale, there are other considerations that can help frame the growth scenarios, such as design of the public realm, a transparent and active street level with interest for

both day and night, inclusion of public spaces, and integration of both horizontal and vertical mixed uses to encourage walkable development nodes.

Based on this information, Figures 16 and 17 show recommended height limits and land uses for the growth scenarios, maintaining compatibility, scale and transitions to the adjacent residential neighborhoods. The Industrial zoning designation adjacent to the MU-1 and MU-2 zoning was assumed as future MU-1 because an existing GMP sub-area policy indicates that is the preferred redevelopment zoning classification.

Area	Moderate Growth Scenario	
	Height	Use
Orange Avenue	3 stories	Mixed office and commercial
Alden Road (north of The Yard)	5 stories	Residential, with office uses fronting Princeton
Alden Road (south of Virginia Drive)	3 stories	Commercial, with some residential
Marks Street to Pasadena Place block	3 stories	Residential and office
Pasadena Place to Weber Street block	3 stories	Residential and office
North of Weber Street	5 stories	Residential and office
Virginia Drive	3 stories	Mixed office commercial and residential
Brookhaven Drive (east of Ferris Avenue)	3 stories	Residential, with commercial fronting Virginia
Brookhaven Drive (west of Ferris Avenue)	3 stories	Mixed office and creative/studio
Mills Avenue (north of Mills Park)	5 stories	Office
Mills Avenue (south of Virginia Drive)	3 stories	Mixed office and commercial
Montana Street/Wilfred Drive/Lang Avenue	3 stories	Office and residential

Figure 16 – Moderate Development Scenario Summary

Area	Substantial Growth Scenario	
	Height	Use
Orange Avenue	5 stories	Mixed office, commercial and residential
Alden Road (north of The Yard)	7 stories	Residential, with mixed uses fronting Princeton
Alden Road (south of Virginia Drive)	5 stories	Commercial, with some residential
Marks Street to Pasadena Place block	3 stories	Residential and office
Pasadena Place to Weber Street block	5 stories	Residential and office
North of Weber Street	7 stories	Residential and office, with mixed use tied into Orange Ave and lake
Virginia Drive	5 stories	Mixed office, commercial and residential
Brookhaven Drive (east of Ferris Avenue)	3 stories	Residential, with mixed use fronting Virginia
Brookhaven Drive (west of Ferris Avenue)	5 stories	Office, commercial and residential
Mills Avenue (north of Mills Park)	7 stories	Office and commercial
Mills Avenue (south of Virginia Drive)	3 stories	Mixed office, commercial and residential
Montana Street/Wilfred Drive/Lang Avenue	3 stories	Office and residential, with commercial on the north end

Figure 17 – Substantial Development Scenario Summary

In addition to the guidelines listed above:

- Parcels along the Orlando Urban Trail should be encouraged to provide additional frontage or outdoor spaces opening onto the trail
- Parcel assemblages between Virginia Drive and Brookhaven Drive should be designed to respect the scale of the Virginia Drive frontage and step back
- Commercial uses adjacent to residential should provide appropriate transitioning and buffers to protect the neighborhood character
- Expansion of the Florida Hospital campus will drive the development character of the north Alden Road area
- Mid-block paseos or pedestrian connections should be provided between Virginia and Brookhaven to shorten long block lengths and provide opportunities for additional frontage
- New private development should be encouraged to provide public spaces as part of the project design

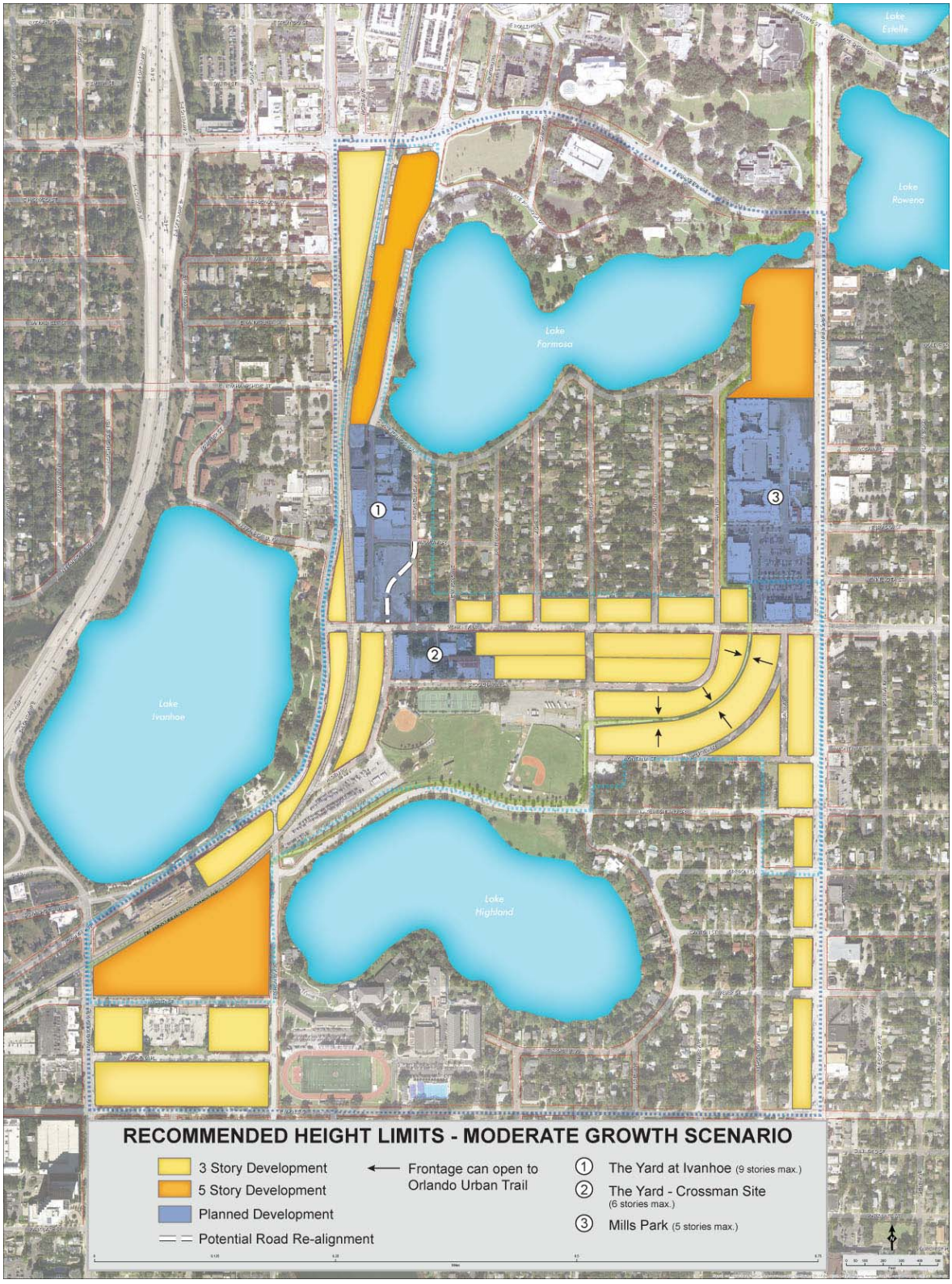


Figure 18 - Moderate Growth Scenario

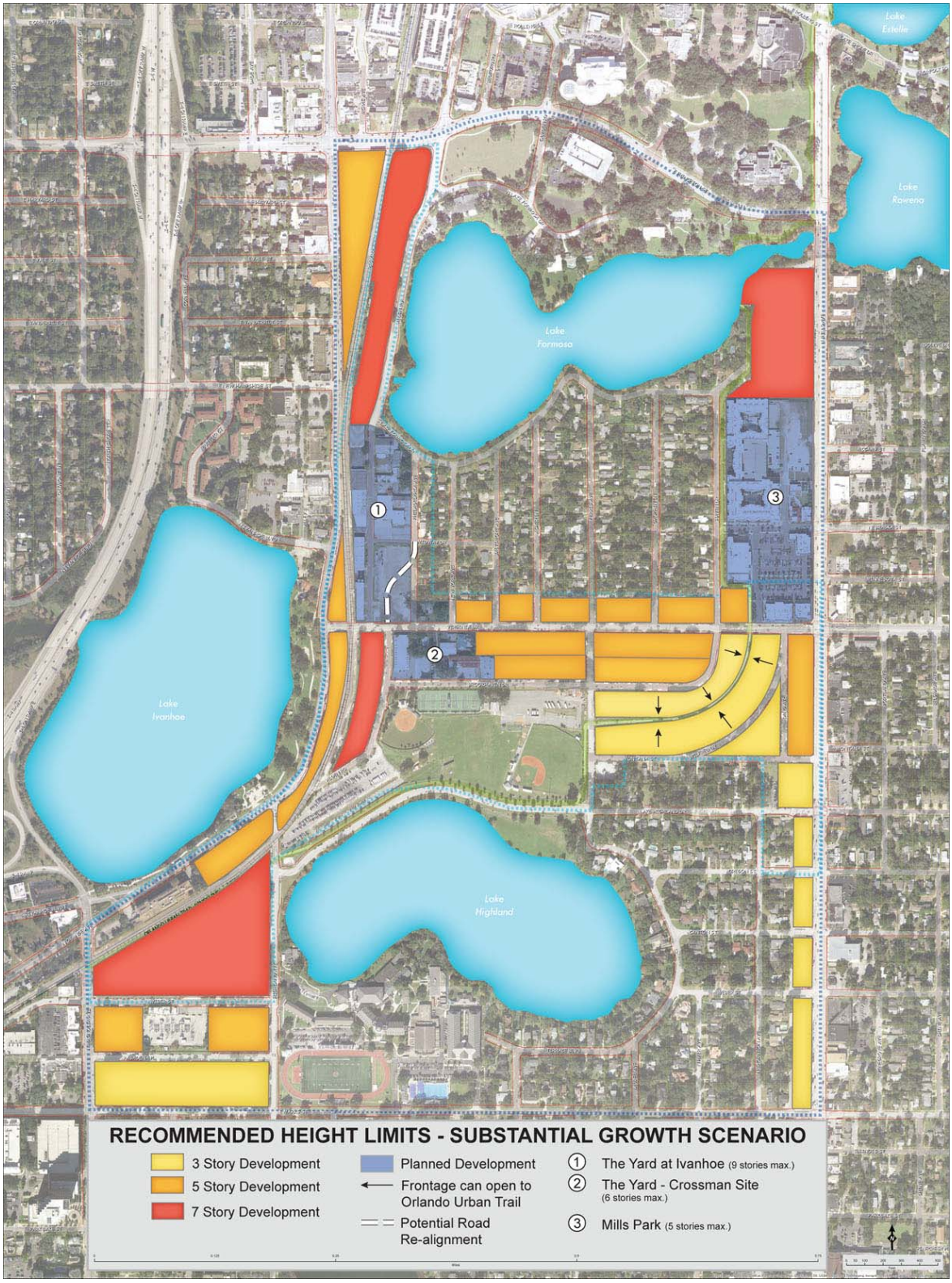


Figure 19 - Substantial Growth Scenario

4.3 ADDING CAPITAL INVESTMENTS

Complete Streets is an approach that encourages roadways to be planned, designed, operated, and maintained to enable safe, convenient and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation, be it walking, bicycling, driving or riding public transportation.

The urban character and location of the study area create many opportunities to increase connections and mobility choices. The roadway improvements outlined below will help balance travel modes, prioritize routes and accommodate expected growth:

Virginia Drive

Virginia Drive is envisioned as a pedestrian-priority street with an active public realm and transparent ground level. It is a County roadway and proposed improvement work will need to be coordinated with Orange County. Improvements should include:

- Dedicated space for bicycles, such as bike lanes, buffered bike lanes or a cycle track
- Green parkway
- On-street parking
- Wide sidewalks
- Street trees
- Streetscape amenities
- Underground utilities
- Buildings fronting the street with parking behind

The streetscape improvements for Virginia Drive (see Figure 21) show two sets of cross sections – an interim and a final configuration. The interim cross sections indicate potential improvements to the public realm that can be accomplished in the shorter term while existing buildings are in place, or for small-scale redevelopment projects. They concentrate on enhancing the sidewalk and parkway (area between the curb and sidewalk) to create a better pedestrian experience along the corridor, as well as provide the opportunity to add new on-street parking spaces. As an alternative to on-street parking, the interim condition may also include a bicycle facility.

The final cross sections indicate improvements that will be considered for a future capital improvement project that addresses the entire corridor. Streetscape elements include narrowing the width of travel lanes, adding bike lanes or a cycle track, putting utilities underground, adding on-street parking and street trees, and widening sidewalks to create an inviting pedestrian realm. As shown in Figure 21, the configuration of the final cross-sections will require the City to negotiate easements or right-of-way acquisitions outside the existing right-of-way as redevelopment occurs to accomplish

the desired public realm improvements along the corridor. Individual elements of the cross-sections may change in dimension or location depending on the availability of right-of-way and final design plans.

Virginia Drive strategies should be coordinated with the upcoming work MetroPlan Orlando will be doing along Corrine Drive.

Figure 20 – Colored Bike Lane

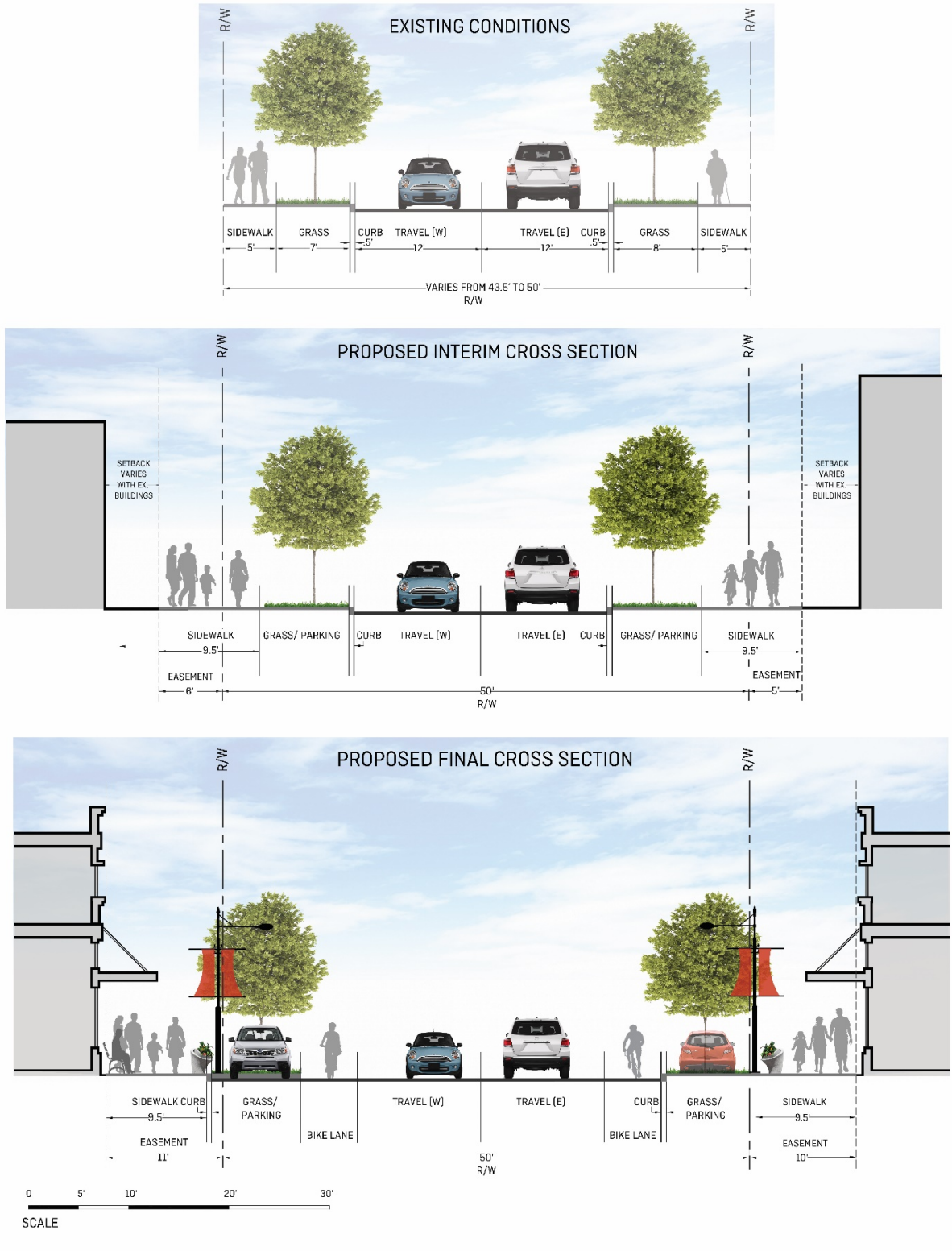


Figure 21a - Virginia Drive Cross-Section from Alden Drive to Baltimore Ave.

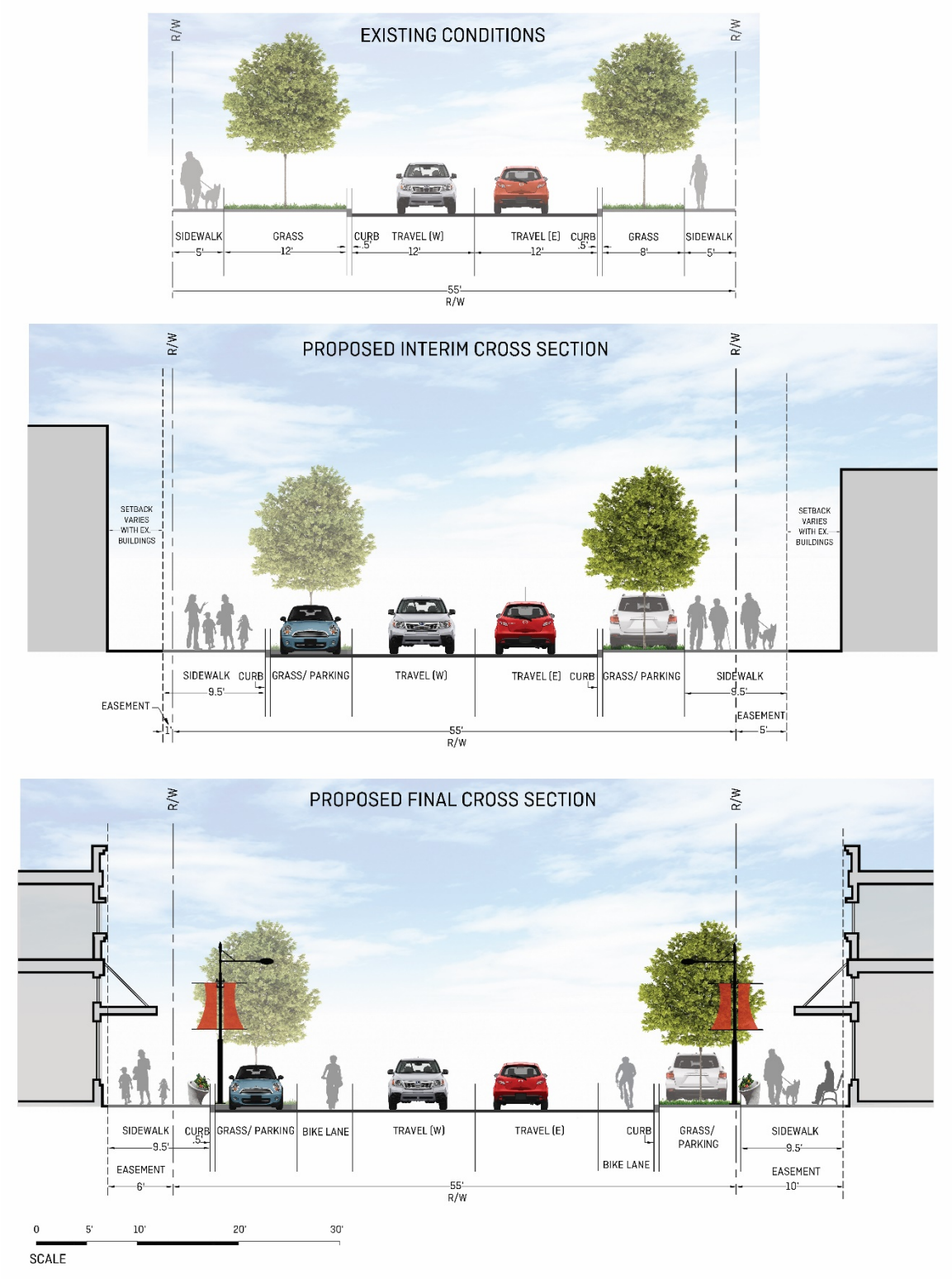


Figure 21b - Virginia Drive Cross-Section from Baltimore Ave. to Ferris Ave.

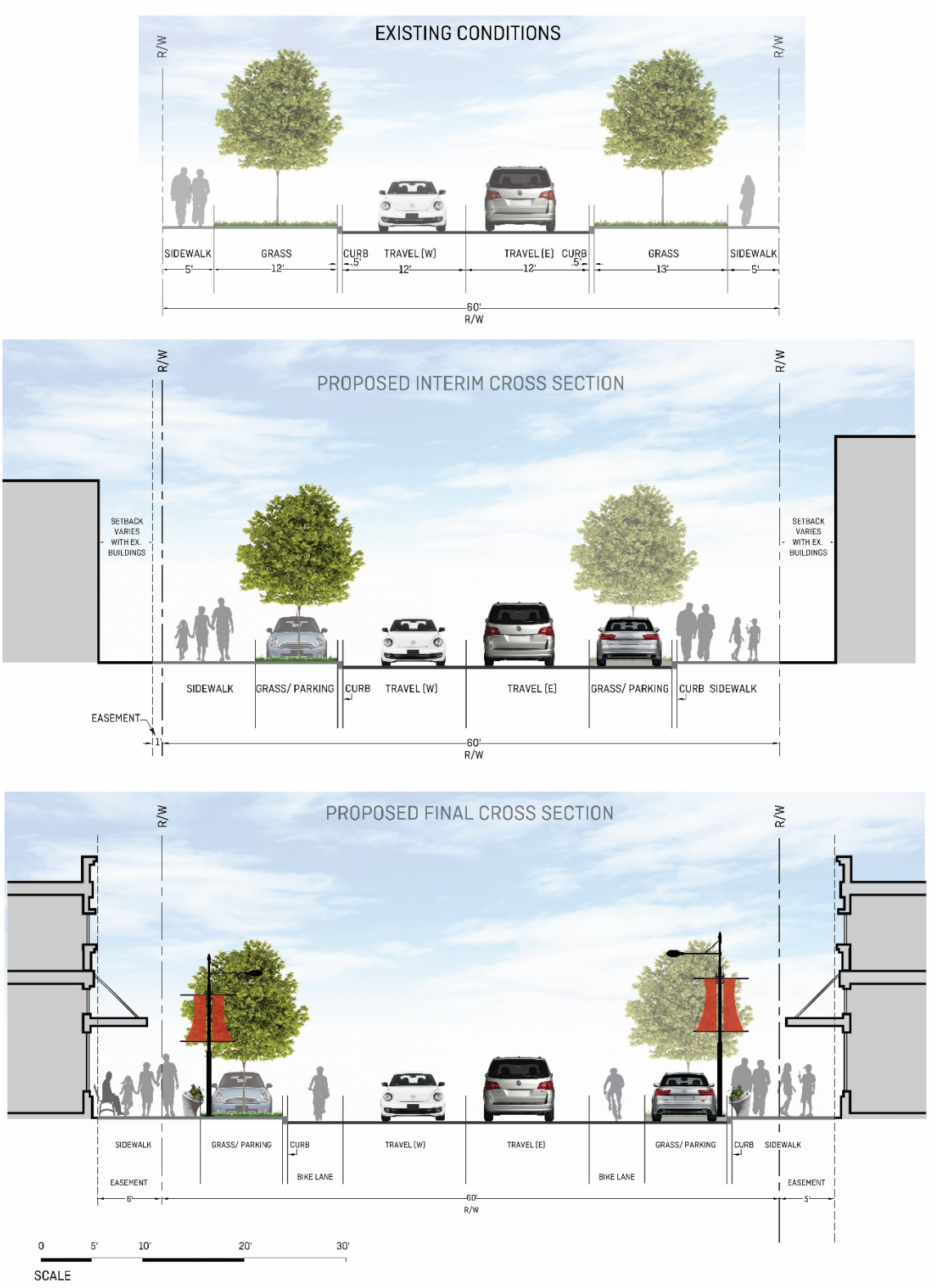


Figure 21c - Virginia Drive Cross-Section from Ferris Ave. to Mills Ave.

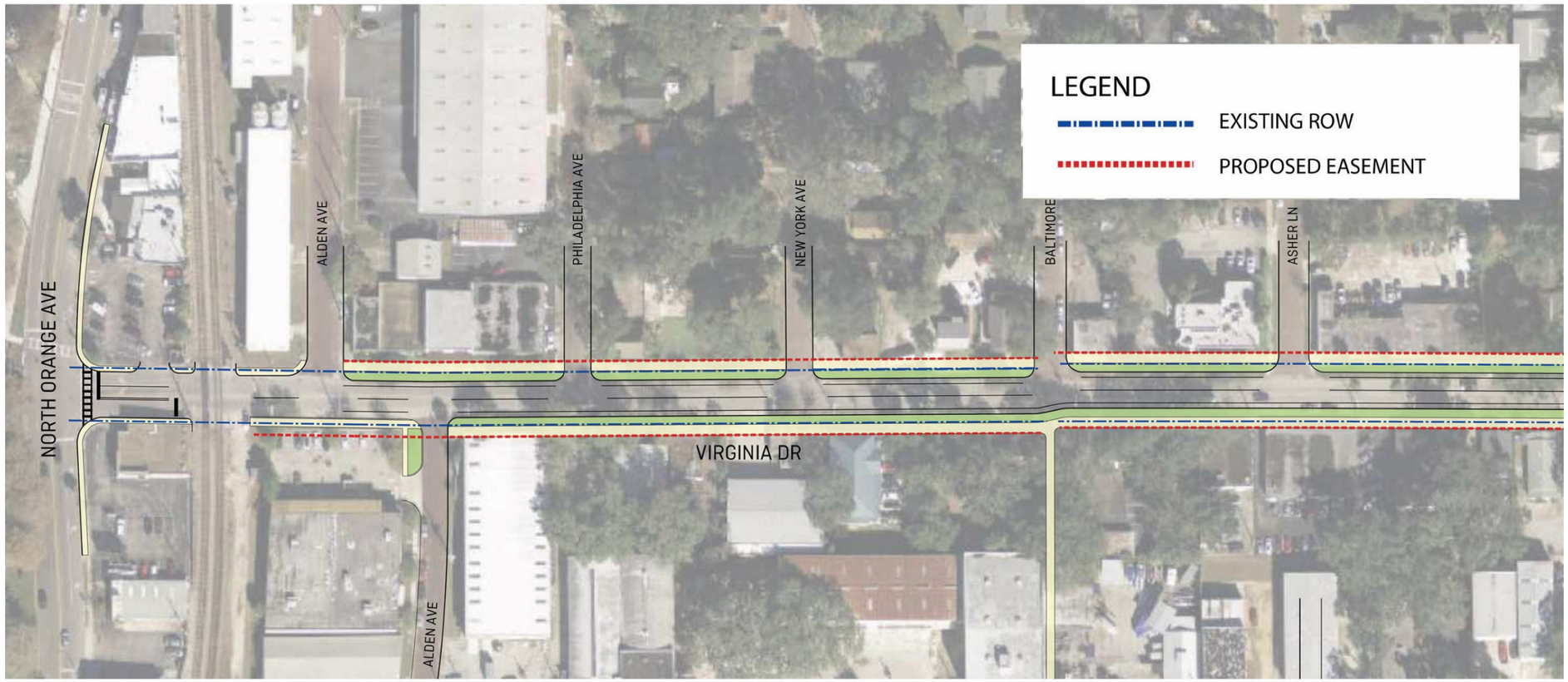


Figure 22a - Virginia Drive Existing ROW and Proposed Easement - West

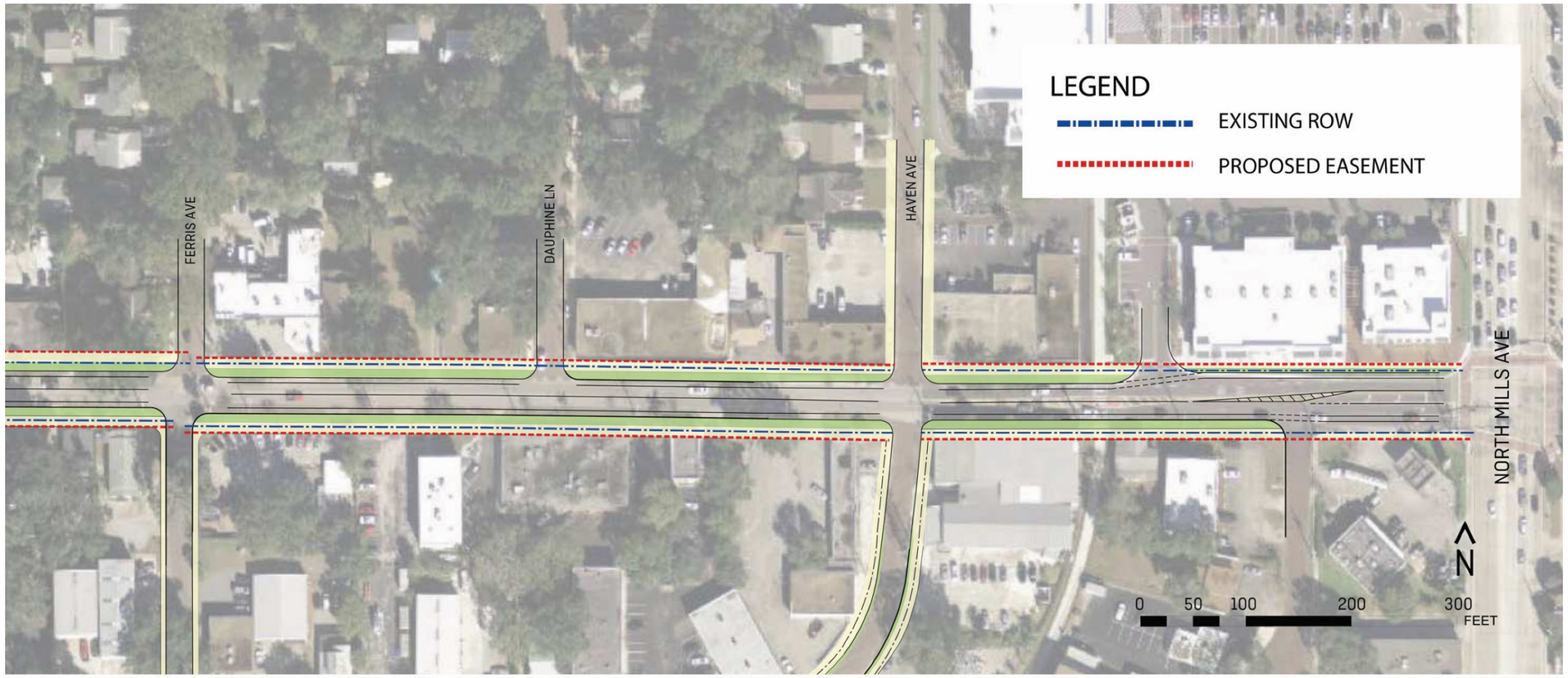


Figure 22b - Virginia Drive Existing ROW and Proposed Easement - East

Brookhaven Drive

Brookhaven Drive is envisioned as a low speed vehicular-priority street (see Figure 24) providing primary access to larger projects, transit routes, residential development and parking areas. Improvements should include:

- On-street parking
- Wider sidewalks fronting buildings on the north side of the street
- Street trees
- Streetscape amenities
- Buildings fronting the street with parking behind
- Connections to the Orlando Urban Trail

Figure 23 – Creative redevelopment of existing buildings

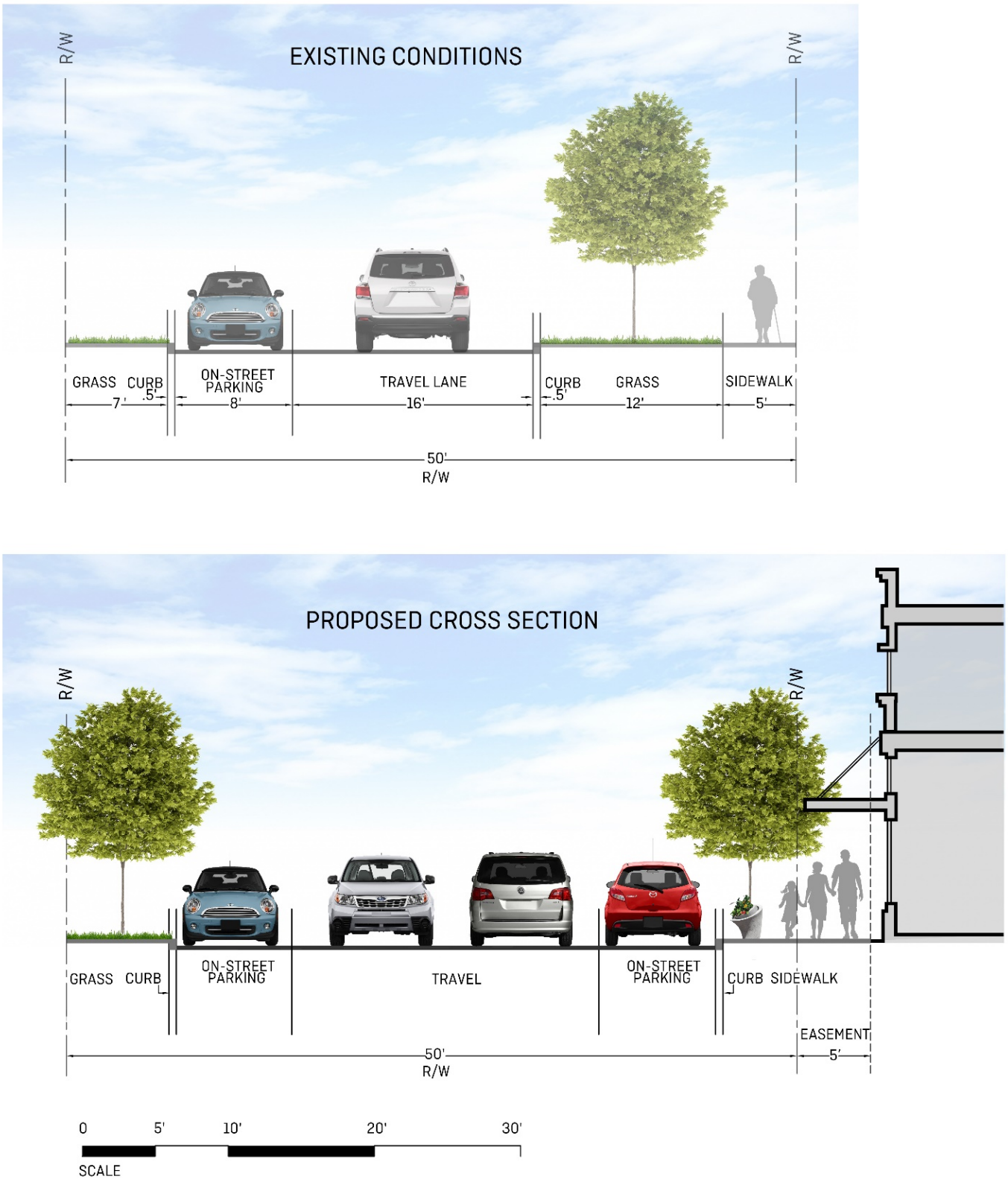


Figure 24 - Brookhaven Drive Cross Section west of Ferris Avenue

Lake Highland Drive

Lake Highland Drive is envisioned as a low speed street that balances vehicular, pedestrian and bicycle access and provides connections to destinations both within and outside the study area (see Figure 26). Lake Highland Preparatory School traffic and activities also influence the design of this roadway. Improvements should include:

- On-street parking
- Bulb outs in place of striped pavement to narrow roadway
- Street trees to frame roadway and provide shade
- Sidewalk on south side of roadway

Figure 25 – Bulb outs in use to narrow roadway

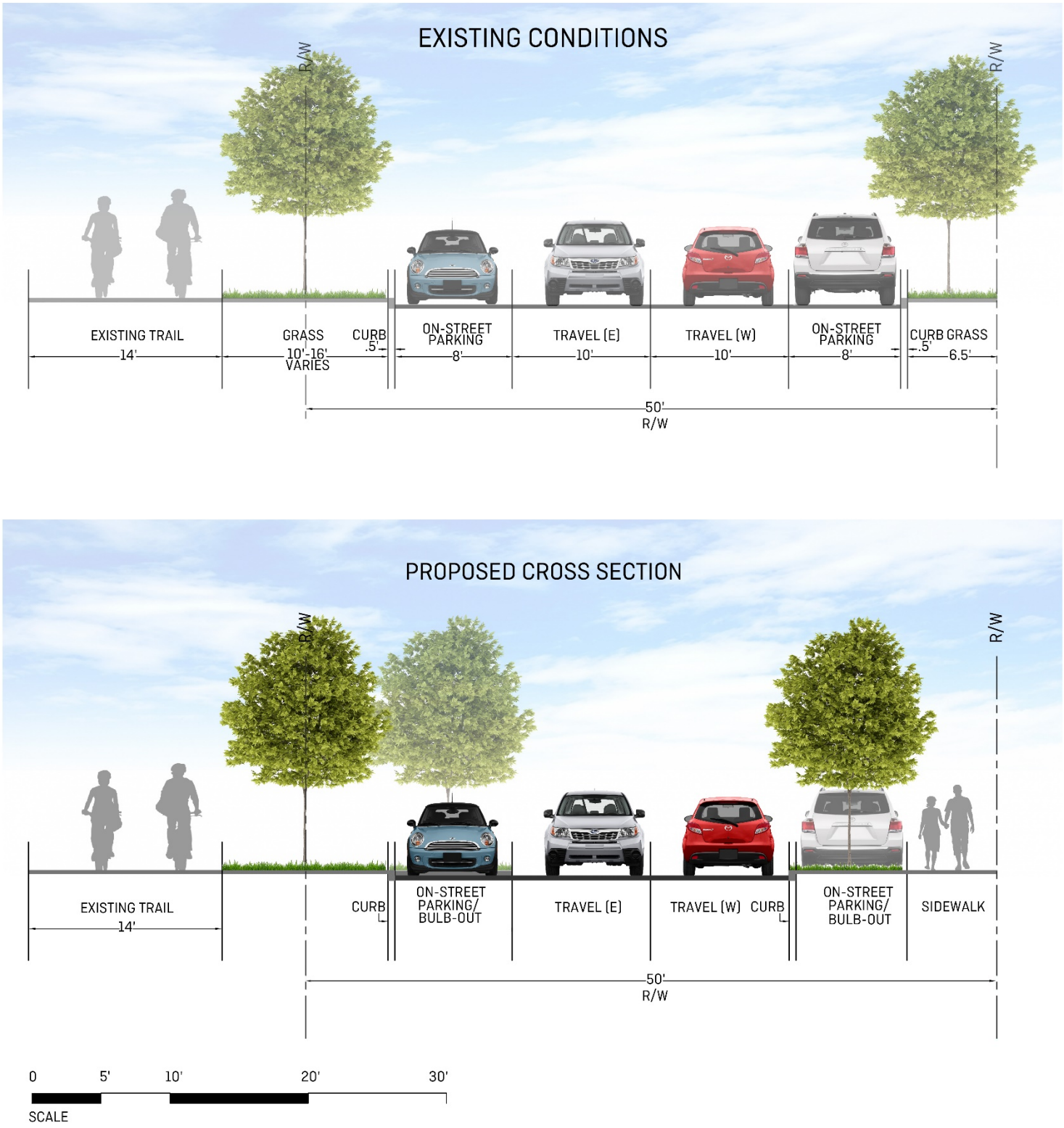


Figure 26 - Lake Highland Drive Cross Section

Figure 27 - Lake Highland Drive Roadway Improvements

South Lake Formosa Drive

South Lake Formosa Drive sidewalk will complete the pedestrian route around Lake Formosa and help provide east/west connections through the study area, especially to the Orlando Urban Trail (see Figure 28). The proposed location for the sidewalk is on the north side of the road along the lake, except for the block between Dauphin Lane and Haven Drive that will cross over to the south side of the road to avoid existing development and connect to an existing sidewalk. Design of the sidewalk along the lake edge should include:

- 6’ wide sidewalk where at-grade width is available; some areas may need slope fill and stabilization
- Low boardwalk over exposed surface roots to protect canopy trees
- Raised boardwalk in areas where at-grade sidewalk is not possible
- Removal of selected water edge vegetation to improve views
- Wider sidewalk or platform to provide seating location over lake
- Enhanced pedestrian crossing and connection to Orlando Urban Trail

If design of a sidewalk along the north side of the road is determined to be cost-prohibitive, a sidewalk could be considered along the south side of the road; however, there are several obstacles that would need to be overcome. Although short lengths of sidewalk already exist here, there is landscaping, trees and walls that would have to be navigated or mitigated. Additionally, many lots have a sloped front yard, so construction of a sidewalk may necessitate construction of low retaining walls. Funding and public support will help determine which option is chosen.

Figure 28 - S. Lake Formosa Drive Sidewalk Improvements

4.4 PARKING

A neighborhood parking study of non-residential uses was undertaken to evaluate existing parking conditions and determine if there is sufficient public and private parking to support current uses. The study grew out of neighborhood concerns about accommodating new development without reducing quality of life. Residents are worried that additional uses will affect congestion and worsen perceived parking shortages.

For purposes of a more detailed analysis, the land use study area was broken down into several sub-areas (see Figure 30):

- Alden Road north (area 1)
- Virginia Drive west (area 2)
- Virginia Drive east (area 3)
- Mills Avenue/Wilfred Drive (area 4)
- Lake Highland Drive/Mills Avenue (area 5)
- Orange Avenue/Ivanhoe Row (area 6)

Figure 29 – Orange Avenue on-street parking

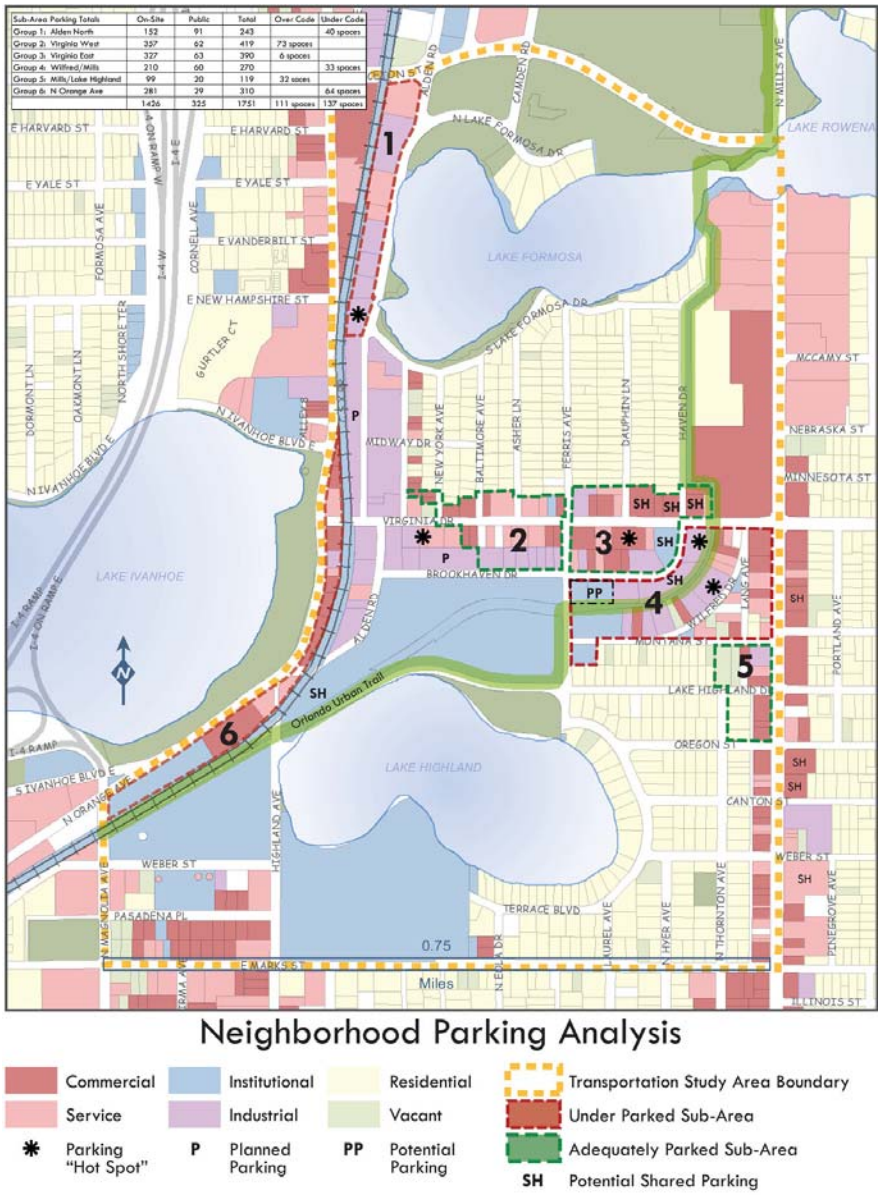


Figure 30 - Neighborhood Parking Sub-Areas

A summary of parking counts is shown below in Figure 31. It does not include parking for Lake Highland Prep, Mills Park, The Yard or Yard-Crossman properties; however, it does include on-street parking adjacent to those sites.

Sub-Area	Required Parking	Provided Parking	Over	Under	On-Street Parking	Total Parking
Alden Road (north)	192	152		40	96	248
Virginia Drive (west)	261	357	96		62	419
Virginia Drive (east)	321	327	6		73	400
Mills/Wilfred	230	210		20	66	276
Lake Highland/Mills	67	99	32		20	119
N. Orange Avenue	417	281		136	29	310
Subtotal	**1488**	**1426**		**62**	**346**	**1772**
Lake Highland Drive					98	
Weber Street					33	
TOTAL						**1903**

Figure 31 – Existing Parking Summary

From an overall neighborhood perspective, there is sufficient parking to support existing uses. However, the inventory found both deficiencies and excesses in the amount of parking within each sub-area (see Appendix H for more detailed information) that highlight the unique challenges related to parking in the study area.

N. Orange Avenue Area: N. Orange Avenue is a thriving area of shops, restaurants and bars. However, many of the smaller sites do not have much on-site parking at all and businesses rely on on-street parking to serve patrons (see Figure 32). Due to the age of the developments, the total number of spaces that are required by current code are not provided, so the sub-area is short on parking. Because of business growth, popularity of the area as a nighttime destination and the existing lack of parking spaces, parking demand is increasing. More parking options are needed. Shared parking with daytime uses, along with connecting parking through the rear of the block on the west side of Orange Avenue could help ease parking issues in the short-term. Additionally, on-street parking could be considered in front of Gaston Edwards Park, with the outside southbound lane being eliminated between NE Ivanhoe Boulevard and Highland Avenue. This would not only provide much-needed parking, but provide traffic calming as well.

Figure 32 - N. Orange Avenue, Typical Parking

Virginia Drive: The Lake Formosa and Park Lake/Highland neighborhoods have significant residential, restaurant and retail growth happening on both the east and west ends of Virginia Drive. Newer developments, such as the Yard and Yard-Crossman, will change the dynamic of the street, but they will have sufficient on-site parking to serve their residents and customers. Virginia Drive itself is a busy, small-scale street with a mix of small local businesses. Buildings are primarily one-story placed near the street with relatively small parking areas in back (see Figure 33). Most parking lots are older and do not meet current landscape or stormwater standards. Unlike Orange Avenue, Virginia Drive has very few on-street spaces and most parking occurs on-site or along side streets into the neighborhood. Most businesses have an adequate number of on-site parking spaces except for a few popular “hot spots” near Mills Avenue. More on-street spaces would help with fluctuating short-term demand, add parking options, and would also help calm traffic. Other improvements that may help ease access to parking are connecting private lots together within a block and encouraging shared parking between uses at different times of the day and night.

Figure 33 - Virginia Drive, Typical Parking

Mills Avenue/Wilfred Drive: On the west side of Mills Avenue, most parcels have adequate parking and meet the minimum code requirements. A connecting alley is located behind businesses south of Lake Highland Drive, which assists with access and circulation and keeps traffic out of the adjacent neighborhood. An extension of the alley north to connect to Lang Avenue may improve business access. West of Mills Avenue, on Wilfred Drive, there is a lack of adequate parking when events are held (see Figure 34). Businesses in this area should arrange for additional parking, shared parking or valet parking during events. Providing access from the Orlando Urban Trail would help promote walking and bicycling to events.

Figure 34 – Wilfred Drive, Parking for Mills Avenue and for Local Events

Brookhaven Drive: The variety of service, light manufacturing and warehouse type businesses on Brookhaven Drive depend on on-street parking for their employees as well as for deliveries (see Figure 35). Several Brookhaven Drive businesses have limited on-site parking or share parking between adjacent sites. As sites redevelop, there are some opportunities to add parking, share parking or make parking more efficient. The vacant OUC lot at the southeast corner of Ferris and Brookhaven offers an opportunity for a public parking lot (with approximately 75-80 spaces) to serve both nearby businesses and the Orlando Urban Trail. In the future, Brookhaven will need on-street parking on both sides of the road. As properties redevelop and change, parking issues can be addressed and access to parking will significantly improve.

Figure 35 - Brookhaven Drive, Typical Parking

Alden Road: The warehouse district along Alden Road north of Virginia Drive was developed without much on-site parking and is 40 spaces short of code requirements. As a result, many of the properties depend on the on-street parking (see Figure 36). This area is in a transition and should be expected to add parking as redevelopment occurs.

Figure 36 - Alden Road, Typical Parking

As a result of the above inventory and analysis, several opportunities to improve parking were noted, including:

Coordinate and Connect Parking Within Blocks: Commercial main streets work best when adjacent properties work together on access and parking. The City's Traditional City design standards for commercial districts require a main street urban form with buildings to the front facing the street and parking in the rear. To make parking work best, adjacent lots should have cross access and businesses should work together to accommodate parking. Ideally, the rear parking lots would connect through the block, improving access to all businesses.

Take Advantage of Shared Parking: Shared parking can be utilized where land uses have different parking demand patterns and can share the same parking spaces. Shared parking would work well with office and eating/drinking establishments where there are different peak demand times. While the City has limited control over private lots, it should pursue shared parking agreements where feasible, especially in areas where evening and weekend parking overflows into adjacent neighborhood areas. The increased activity produced by having a variety of businesses discourages undesired behaviors at night.

Use Parking to Support a Multimodal Approach: Some might argue that having plenty of extra public parking will benefit businesses and customers. However, more parking attracts more vehicles, traffic and trips, and each parking space reduces the amount of building space on a site, resulting in potential lost revenue. Minimum parking requirements generally oversupply parking. The cost of parking is high, so efficient and cost-effective use of current parking supply is better than spending money on new parking facilities that may not be needed. Alternatively, making transit, biking and walking attractive mobility options means less parking is needed. RideShare programs are also likely to become more widespread, and should be supported in the corridor. Adding secure long-term bike parking for commuters and bike racks for customers may help encourage biking. Adding pedestrian amenities such as wider sidewalks, pedestrian-scale lighting, street trees and wayfinding signage would encourage more walking. A pedestrian-friendly street encourages people to park once and shop a variety of stores on foot, thus improving efficiency of parking and allowing centralized parking to function better. As growth and higher densities occur in the future, parking can be strategically located to support businesses, transit and bike use and help reduce traffic and the number of vehicle miles traveled. As new technologies such as driverless vehicles are introduced, parking demand may actually decrease, and existing surface parking lots may become viable redevelopment opportunities or community assets.

Green Up Parking: Parking lots contribute to water pollution unless designed to capture stormwater rather than allowing it to flow into drains. Older parking lots can be retrofitted to provide better ecosystem function, with more space for trees and green stormwater capture areas. Rainwater can be collected in bioswales planted with

carefully selected vegetation and trees that absorb and clean water pollutants. Parking lots can be brought up to today's Code standards by retrofitting them to include buffer hedges adjacent to residential uses. Trees are an important asset in parking lots. Not only do they add value and provide shade, cool the pavement and buildings, and reduce energy costs, they also absorb pollutants in the air and reduce stormwater runoff. Large trees not only serve the site where they are located, but positively affect adjacent sites and sometime entire blocks. There are numerous large trees enhancing parking lots in the study area. It is recommended that healthy native trees be retained if possible when redevelopment is considered. New trees should be added to increase shade and supplement trees in declining condition.

Figure 37 – Parking lot with bioswale

Add On-Street Parking Spaces: On-street parking provides more parking opportunities for customers to patronize local businesses. The parking analysis found there are plenty of on-street spaces in the area, except for Virginia Drive. Adding the option for on-street spaces on Virginia Drive will not only help businesses, but will also slow traffic and improve pedestrian safety and comfort.

4.5 TRANSPORTATION NETWORK

This transportation network performance assessment has been prepared to help support the City of Orlando in the development of a Transportation Infrastructure Plan for the neighborhoods surrounding the Virginia Drive corridor. This assessment looks at land use and projected development against an examination of travel patterns on the existing network as well as two alternative alignments of Alden Road. As shown in Figure 38, the study area is bound by Princeton Street to the north, Marks Street to the south, Mills Avenue to the east, and Orange Avenue and Magnolia Avenue to the west.

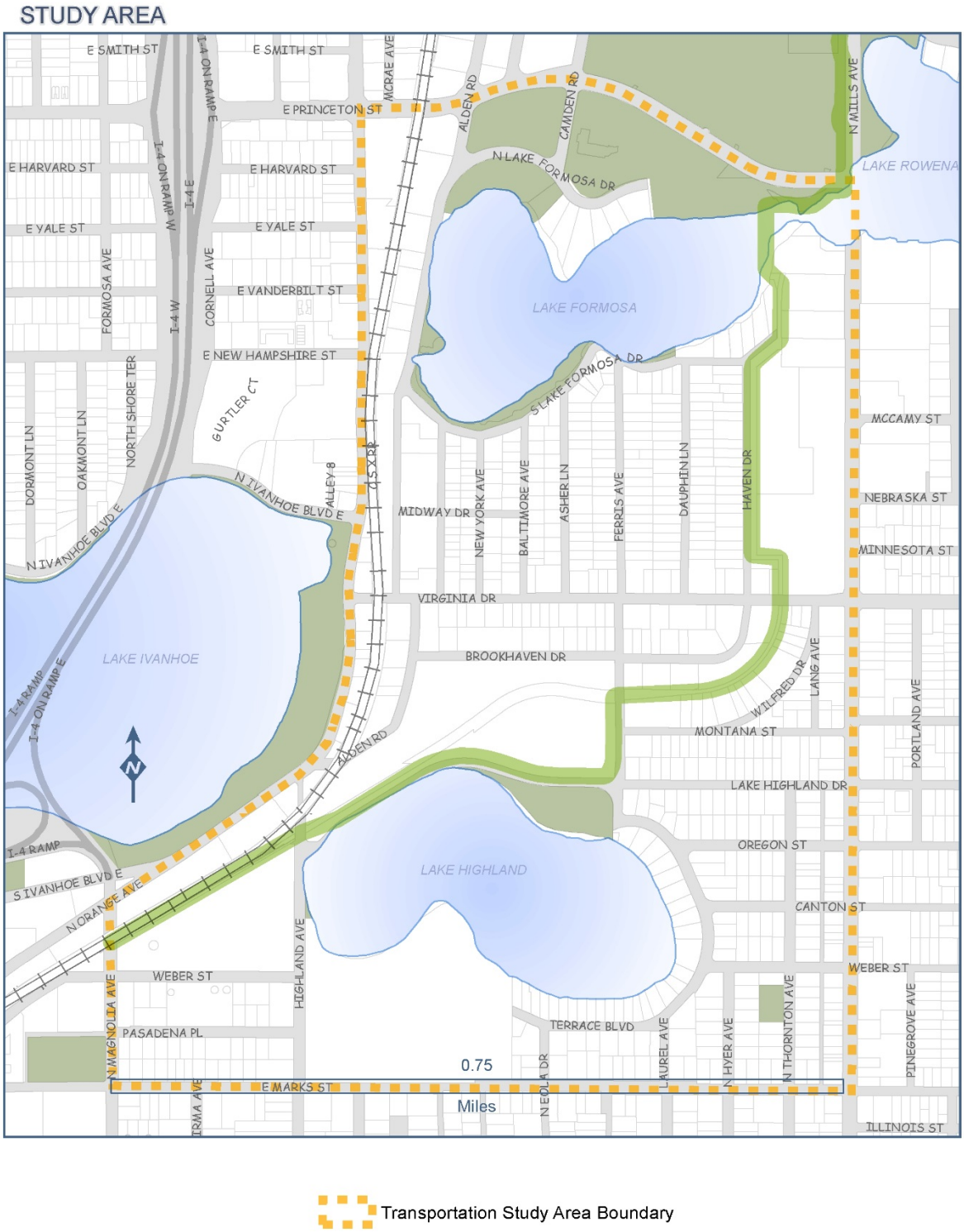


Figure 38 - Transportation Study Area

Existing Conditions

Data Collection

The assessment required a significant data collection effort to determine the existing conditions and projected future travel demands.

Origin Destination Study

Origin-destination (O-D) and pass through travel characteristics were collected to provide insights into the travel patterns within the study area. This data provided a framework for modeling the shifts in travel patterns for the two alternative Alden Road alignments and overall network testing.

The O-D data was developed by tracking media access control (MAC) addresses from the Bluetooth equipped wireless devices found in many vehicles. These MAC addresses are not registered to individuals, and therefore the technique provides for the anonymous collection of trip data. Battery powered MAC address receivers were located at key spots in the study area and along other important links. The post-processing of this data in a central computer system matches the timestamped addresses between the various reader locations, providing for the determination of very accurate O-D information. A summary of the O-D analysis is provided in Appendix A.

Count Data

Turning movement counts were collected at signalized intersections to calibrate the O-D data and develop a microsimulation Synchro model to assess traffic operations in the study area. The data collection effort included AM and PM weekday peak hour turning movement counts at 18 intersections and bicycle and pedestrian crossing counts at 2 locations:

Turning Movement Counts

- Mills Avenue at Princeton Street
- Mills Avenue at Nebraska Street
- Mills Avenue at Virginia Drive
- Mills Avenue at Lake Highland Drive
- Mills Avenue at Marks Street
- Princeton Street at Alden Road
- Orange Avenue at Princeton Street
- Virginia Drive at Brookhaven Drive
- Virginia Drive at Ferris Avenue
- Virginia Drive at Alden Road

- Virginia Drive at Orange Avenue
- Orange Avenue at Alden Road
- Orange Avenue at Highland Avenue
- Highland Avenue at Lake Highland Drive
- Highland Avenue at Marks Street
- Lake Highland Drive at Ferris Avenue
- Brookhaven Drive at Ferris Avenue
- Brookhaven Drive at Alden Road

Bicycle and Pedestrian Crossings

- Orlando Urban Trail at Virginia Drive
- Railroad Crossing at Virginia Drive

The count locations are shown in Figure 39. Turning movement summary tables are included as Appendix B. All intersection and roadway count data is included in Appendix C.

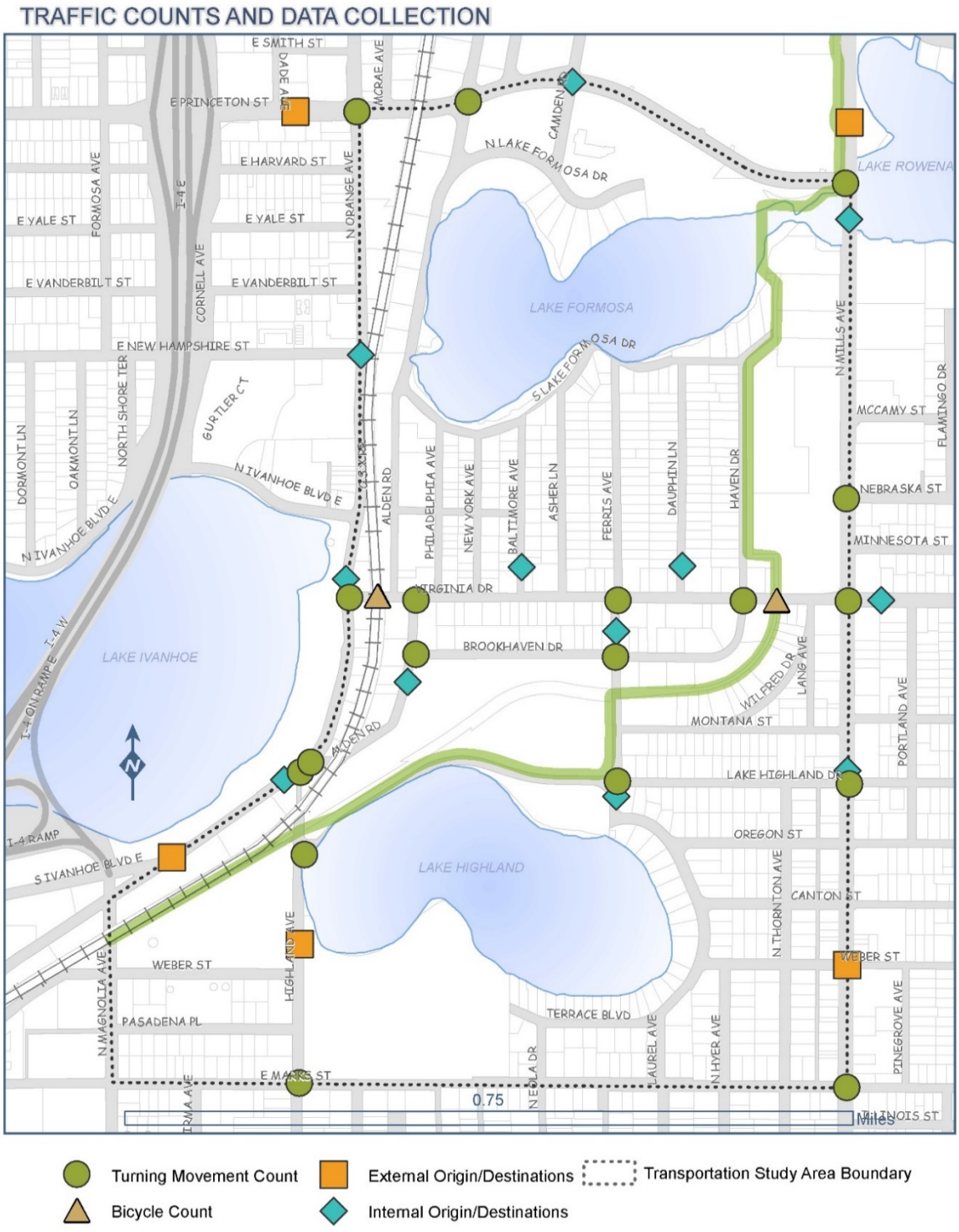


Figure 39 - Traffic Counts and Data Collection

Projected Travel Demand

The projected 2040 travel demand was developed using historical traffic counts, information from the MetroPlan Orlando Urbanized Area Transportation Study (OUATS), traffic impact studies from planned developments, and traffic impact estimates based on the Substantial Growth Scenario (Figure 19)

Background Traffic Growth

An annual average background traffic growth factor was developed using historic FDOT traffic count data and volume data from the OUATS model. The average annual growth rate was calculated for the previous ten years (2006-2015) of average annual daily traffic (AADT) counts on Orange Avenue and Mills Avenue. These roadways experienced an overall decrease in AADT resulting a negative growth rate. The OUATS model 2010 and 2040 traffic volumes were also analyzed and summarized. Model data reflects a modest average annual growth rate of 0.53 percent within the study area.

Per coordination with the City of Orlando staff, a 1 percent annual average background traffic growth factor was assumed for all roadways within the study area.

The AADT count data is provided in Appendix D.

Planned Development

The projected 2040 travel demand and performance assessment model included the trip generation and assignment data from Yard at Ivanhoe and The Yard Crossman traffic impact studies, dated December 2014 and January 2016 respectively. The Yard Crossman study only included a PM peak hour analysis. Therefore, the AM trip data was generated utilizing the same methodology as the provided PM peak analysis. The analysis utilized the *ITE Trip Generation Manual 9th Edition* for trip generation, NCHRP Report 684 for internal capture, assumed 2 percent transit trip reduction, and 34 percent pass-by rate for the specialty retail portion of the development. The NCHRP 684 Internal Trip Capture Estimation Tool worksheet for The Yard Crossman PM peak hour trip generation data is provided in Appendix E. A summary of the AM and PM peak hour external vehicle trip totals are provided in Figures 40 and 41. The map ID numbers listed in the tables correspond to the development locations illustrated in Figure 45.

Map	Development	Total	Entering	Exiting
1	The Yard at Ivanhoe	463	137	326
2	The Yard Crossman	257	141	116

Figure 40 - Planned Development AM Peak Hour External Vehicle Trip Totals

Map	Development	Total	Entering	Exiting
1	The Yard at Ivanhoe	373	281	92
2	The Yard Crossman	234	99	135

Figure 41 - Planned Development PM Peak Hour External Vehicle Trip Totals

Future Development

The future development assumptions were created from the market analysis and Substantial Growth Scenario (Figure 19). Travel demand estimates were developed as part of this study. These assumptions are listed in Figure 42 with the project locations (map ID number) illustrated in Figure 45.

Map	Development	Dwelling Units	Office (KSF)	Retail (KSF)
3	Virginia Drive East Mixed Use	225	50	25
4	South Alden	25	15	5
5	North Alden	100	-	-
6	City Site South	73	30	65

Figure 42 - Future Development Assumptions

The projected 2040 travel demand and performance assessment model use the same trip generation methodology as the planned development projects; *ITE Trip Generation Manual 9th Edition* for trip generation, NCHRP Report 684 for internal capture, assumed 2 percent transit trip reduction, and 34 percent pass-by rate for the specialty retail portion of the development. The Internal Trip Capture Estimation Tool worksheets for PM peak hour trip generation data are provided in Appendix E. A summary of the AM and PM peak hour external vehicle trip totals are provided in Figures 43 and 44.

The external vehicle trips generated by the future development were coded into the Synchro performance assessment model for trip assignment and distribution.

Map	Development	Total	Entering	Exiting
3	Virginia Drive East Mixed Use	294	153	141
4	South Alden	76	48	29
5	North Alden	51	9	42
6	City Site South	383	200	182
	Total	**804**	**410**	**394**

Figure 43 - Future Development AM Peak Hour External Vehicle Trip Totals

Map	Development	Total	Entering	Exiting
3	Virginia Drive East Mixed Use	267	116	151
4	South Alden	117	32	84
5	North Alden	59	39	20
6	City Site South	284	127	157
	Total	**719**	**284**	**435**

Figure 44 - Future Development PM Peak Hour External Vehicle Trip Totals

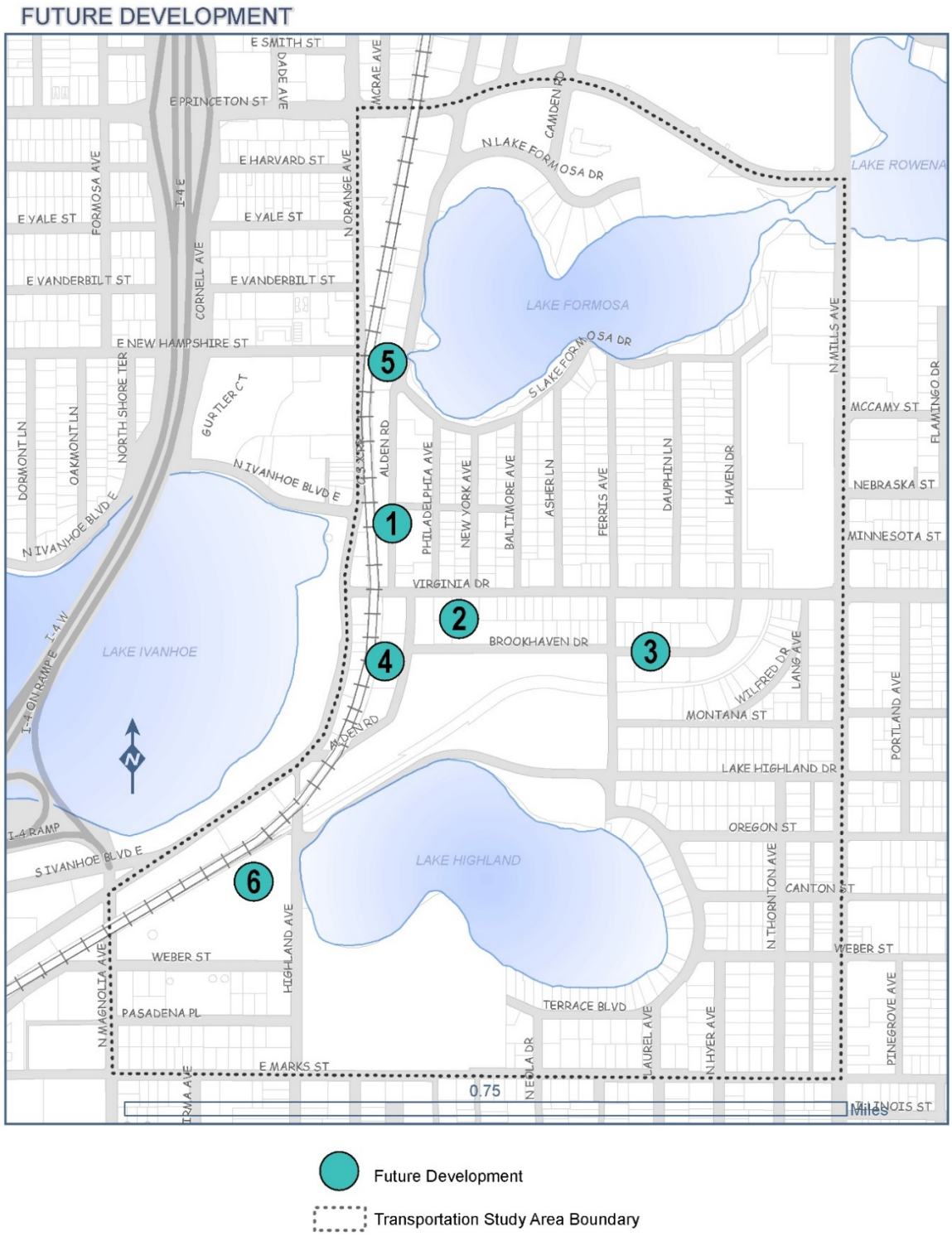


Figure 45 - Future Development Nodes

Network Alternative Analysis

Alternative Roadway Networks

The projected 2040 traffic volumes were assigned to three alternative transportation networks including a no build existing network and two alternative alignments of Alden Road. The Alden Road alternatives are illustrated in Figures 46 and 47.

Alden Road Alignment #1

The first alternative alignment for Alden Road includes the following modifications:

- Alden Road extended south to Highland Avenue
- Lake Highland Drive extended to Alden Road with a new three-way intersection
- Railroad crossing at Alden Road eliminated

Alden Road Alignment #2

The second alternative alignment for Alden Road includes the following modifications:

- Alden Road extended south to Highland Avenue
- Lake Highland Drive extended west to Orange Avenue using the existing Alden Road railroad crossing
- Eliminated the intersection of Highland Avenue and Orange Avenue
- Eliminated the railroad crossing at Highland Avenue

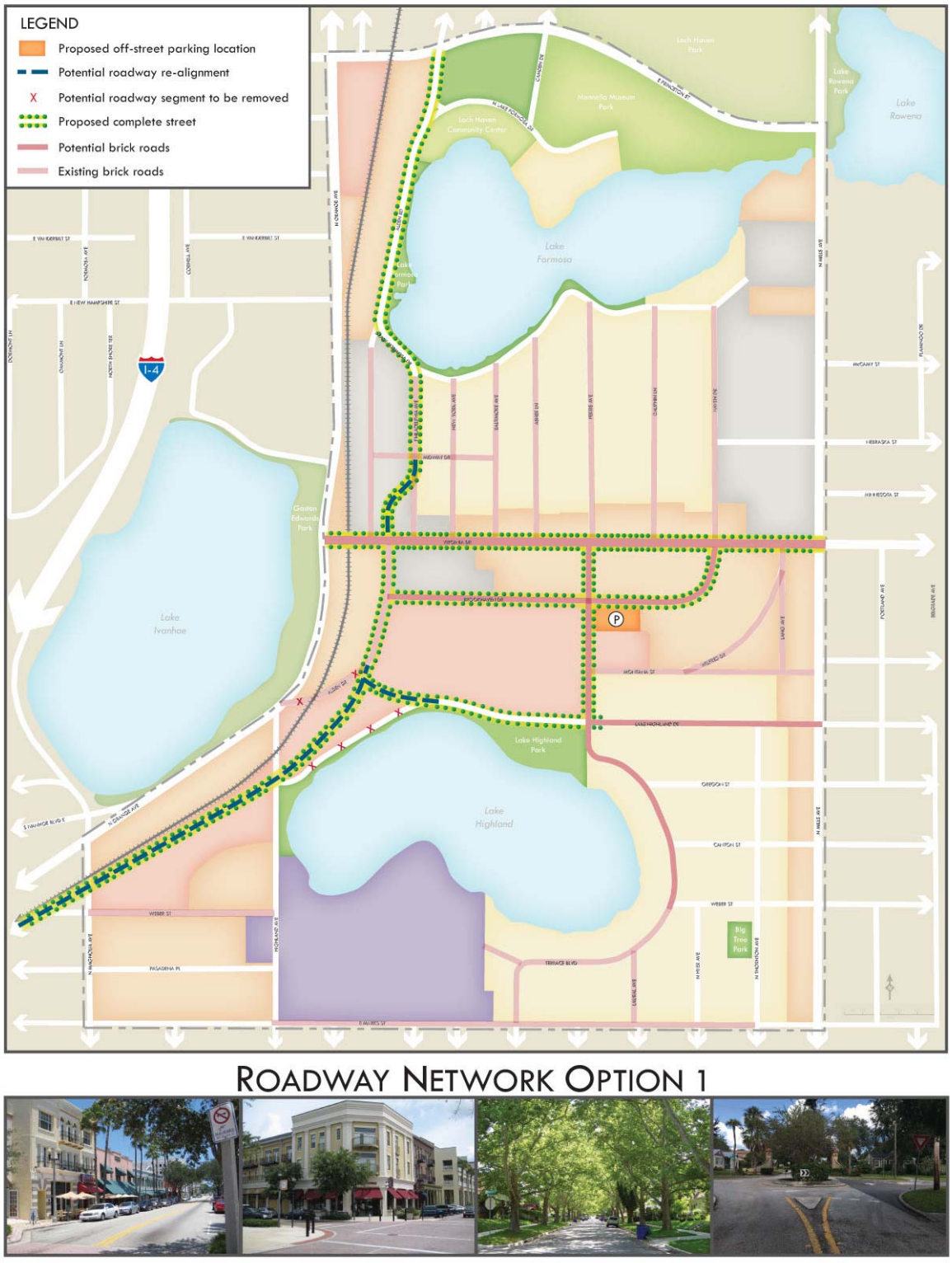


Figure 46 - Alden Road Realignment Option 1

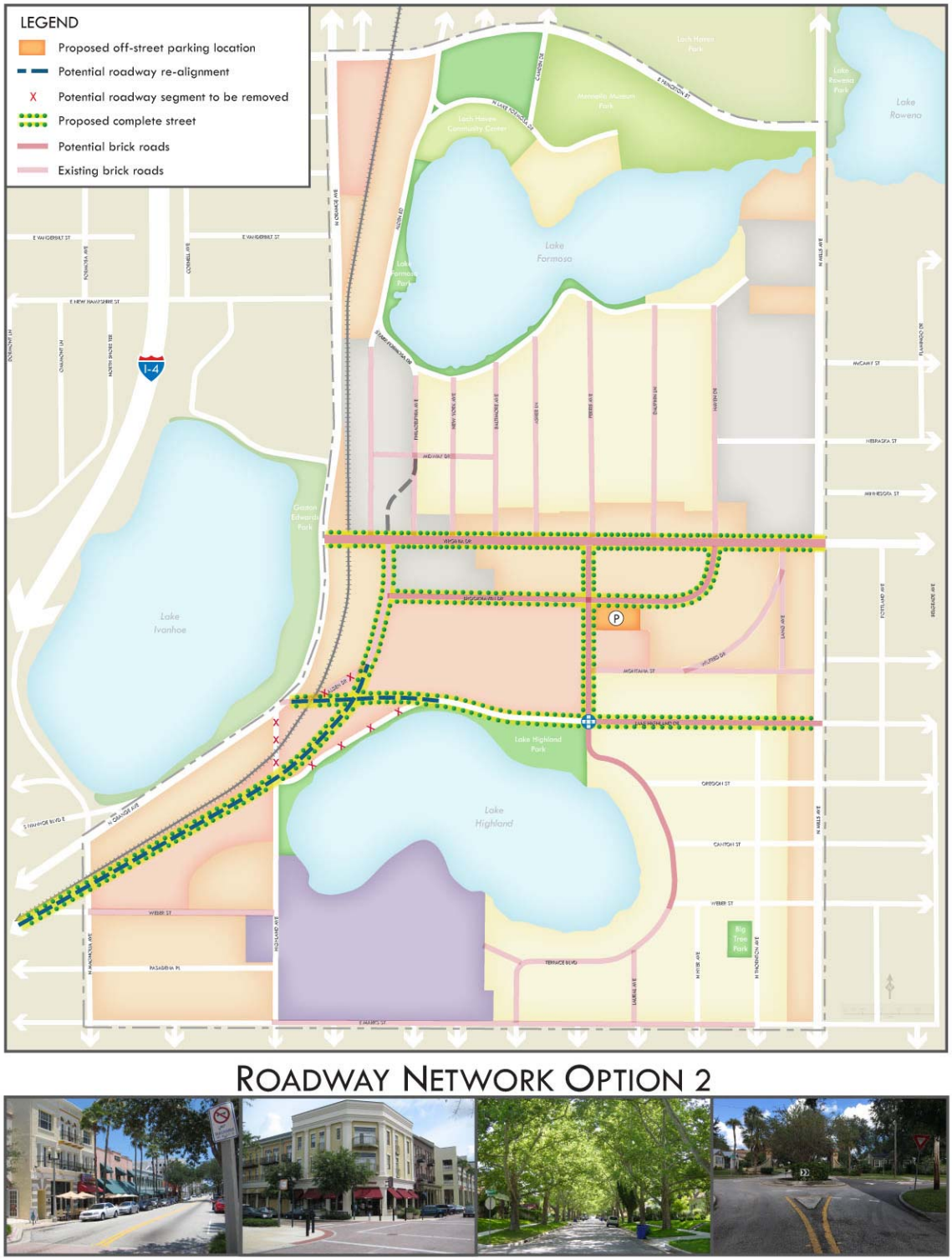


Figure 47 - Alden Road Realignment Option 2

Performance Assessment Model

A performance assessment model was developed to evaluate the impacts of the projected 2040 travel demand associated with the Substantial Growth Scenario (Figure 19) on the existing roadway network and the two alternative alignments of Alden Road described in the previous section. The assessment inputs were adjusted using a spreadsheet tool that utilized the O-D information and traffic count data to reroute travel patterns. The three 2040 future scenarios included signal optimization at all signalized intersections. The Synchro summary reports are provided in Appendix F.

A summary of the intersection level of service and intersection capacity utilization for the existing and new signalized intersections within the study area is provided in Figures 48 and 49. The Syncro LOS information is a measure of the average delay a driver would experience when traveling through an intersection, converted to a letter score indicating typical satisfaction. This provides insight into the level of total congestion at the intersection. The intersection capacity utilization provides insight into how much extra capacity is available for traffic fluctuations and possible geometry or signal timing improvements.

The intersection signal delay is presently the longest at the intersection of Virginia Drive and Mills Avenue. This trend is projected to continue in the 2040 analysis as this intersection serves as a crossroads between east-west and north-south traffic corridors.

Previous planning studies for this area have indicated that the capacity on Virginia Drive between Mills Avenue and Orange Avenue would need to be increased at some point in the future to accommodate the anticipated traffic growth. This capacity increase was envisioned as a widening to four full travel lanes for this road segment. One of the primary objectives of the current planning effort was to determine if this widening was still needed given new growth projections, and whether or not the decision to forego the additional lanes on Virginia Drive would negatively impact the surrounding roadway network under future traffic conditions. The performance assessment models indicate that overall network performance will not be drastically degraded if Virginia Drive remains as a two-lane urban roadway. Therefore, all remaining assessments of future network conditions were conducted with Virginia Drive modeled as a two-lane roadway.

The overall network performance under both of the Alternatives for the Alden Road and Lake Highland Drive realignment is expected to improve. Alternative #1 provides a parallel north-south path to Orange Avenue and is expected to reduce volumes and delays on this critical facility. Alternate #2 provides similar relief to Orange Avenue but also reduces east-west volumes on Virginia Drive and alleviates pressure on the Virginia Drive and Mills Avenue intersection. This relief is significant for the overall network performance, since this intersection is likely to be the poorest performing area intersection under any future scenarios.

Signalized Intersection	Existing Condition			2040 No Build Network			2040 Alternative #1			2040 Alternative #2		
	LOS	Delay (sec)	% Cap	LOS	Delay (sec)	% Cap	LOS	Delay (sec)	% Cap	LOS	Delay (sec)	% Cap
Princeton at Mills	C	31	73	C	24	83	D	38	83	D	41	83
Princeton at Orange	E	61	92	D	43	104	D	48	104	D	45	104
Mills at Virginia	D	42	84	F	105	107	F	107	107	F	101	97
Virginia at Orange	B	13	69	C	23	82	C	24	82	B	17	82
Princeton at Alden	A	7	62	D	41	101	A	8	77	A	7	77
Mills at Nebraska	E	74	83	E	62	100	E	71	100	F	92	100
Mills at Lake Highland	A	4	47	A	9	57	B	11	57	C	30	77
Mills at Marks	B	12	54	A	10	68	A	10	68	B	12	68
Highland at Marks	B	15	34	B	10	39	B	10	39	B	12	39
Highland at Orange	A	4	63	D	50	82	B	17	78	-	-	-
Lake Highland at Orange (option 2)	-	-	-	-	-	-	-	-	-	C	31	50
Virginia Dr at Alden	-	-	-	-	-	-	B	34	62	B	44	62

Figure 48 – AM Peak Hour Level of Service Summary

Signalized Intersection	Existing Condition			2040 No Build Network			2040 Alternative #1			2040 Alternative #2		
	LOS	Delay (sec)	% Cap	LOS	Delay (sec)	% Cap	LOS	Delay (sec)	% Cap	LOS	Delay (sec)	% Cap
Princeton at Mills	D	50	75	D	46	89	D	42	89	D	42	89
Princeton at Orange	C	27	90	E	56	102	E	61	103	E	60	102
Mills at Virginia	F	110	98	F	154	116	F	151	116	F	109	103
Virginia at Orange	B	11	75	C	27	92	B	17	92	B	19	92
Princeton at Alden	A	9	68	B	10	86	B	10	86	B	11	86
Mills at Nebraska	D	39	73	E	70	87	E	64	87	D	52	87
Mills at Lake Highland	A	9	57	C	28	70	D	37	70	D	50	87
Mills at Marks	B	18	65	C	22	88	C	22	88	C	21	88
Highland at Marks	B	18	44	B	14	53	B	15	53	B	14	53
Highland at Orange	A	7	67	C	34	86	C	24	81	-	-	-
Lake Highland at Orange (option 2)	-	-	-	-	-	-	-	-	-	C	32	55
Virginia Dr at Alden	-	-	-	-	-	-	C	42	65	C	66	73

Figure 49 – PM Peak Hour Level of Service Summary

4.6 COMPLETING NETWORKS

Multimodal planning looks at all the transportation networks in an area, along with the key land use nodes they connect. Some of the benefits of a connected multimodal system include:

- More transportation choices
- Mobility and opportunity equity
- Economic vitality
- Reduced congestion and travel time
- Energy conservation
- Increased public health and quality of life

To keep people moving in and through the study area, it is important to look at how different modes of transportation work together. Multimodal planning looks at pedestrian, bicycle, roadway and transit networks; focuses on how these networks connect to each other and work together; and ensures that each network not only works well by itself, but also that each network interacts and connects with other modes to create more opportunities to move around.

Pedestrian Network: An organized, walkable, pedestrian-friendly environment encourages people to get out and explore. A public realm framed by buildings with walkable blocks, quality sidewalks and public spaces, lighting and landscaping provides opportunities for shopping and dining, and gathering spaces to sit, relax and people watch. Pedestrian network improvements (see Figure 50) could include:

- Wider sidewalks
- New sidewalks and trails to close gaps
- Pedestrian-scale lighting along streets and trails
- Park strips between the travel lane and sidewalk that are wide enough to plant street trees
- Intersection enhancements – crosswalks, bulb outs, signals/beacons

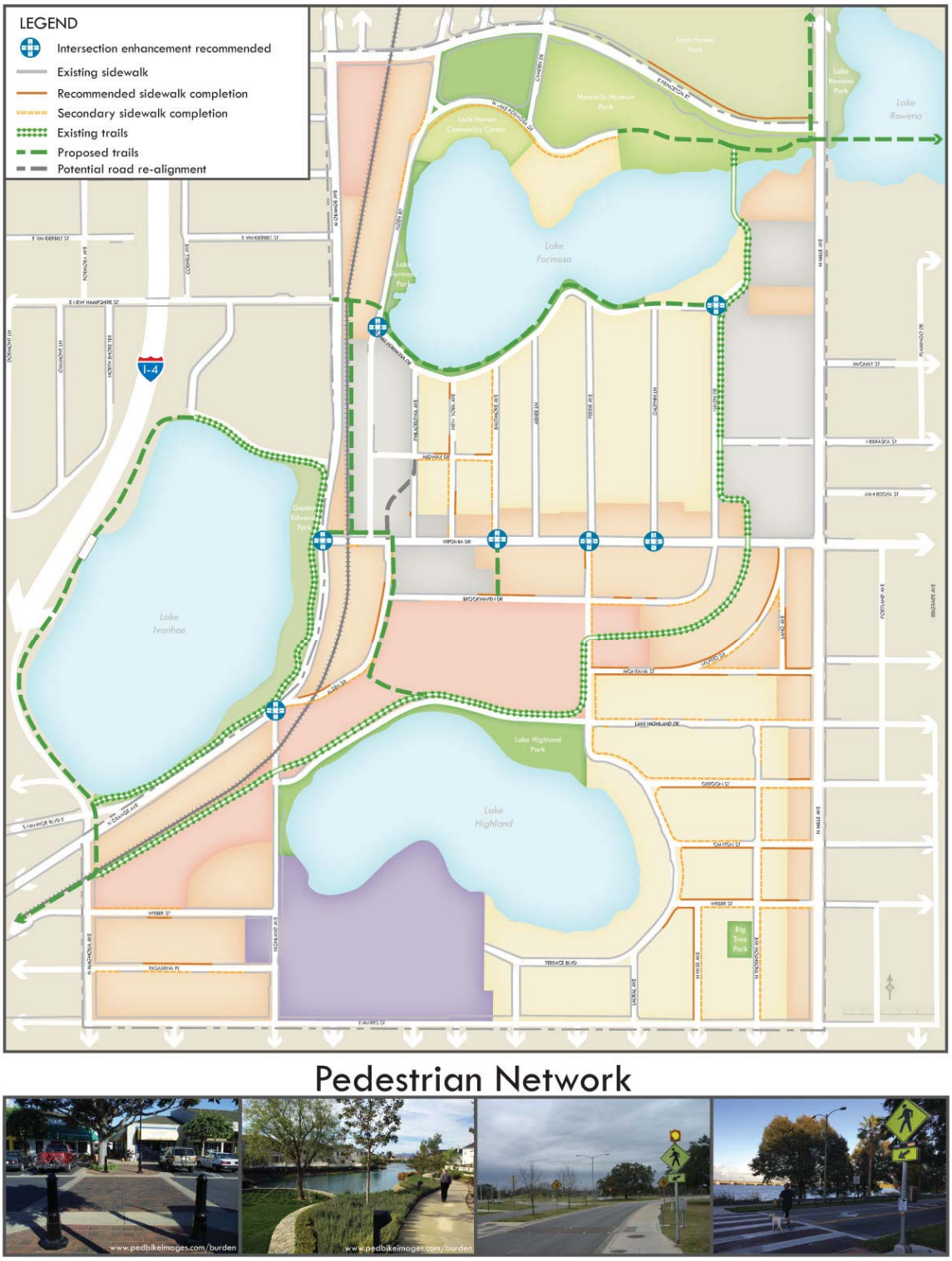
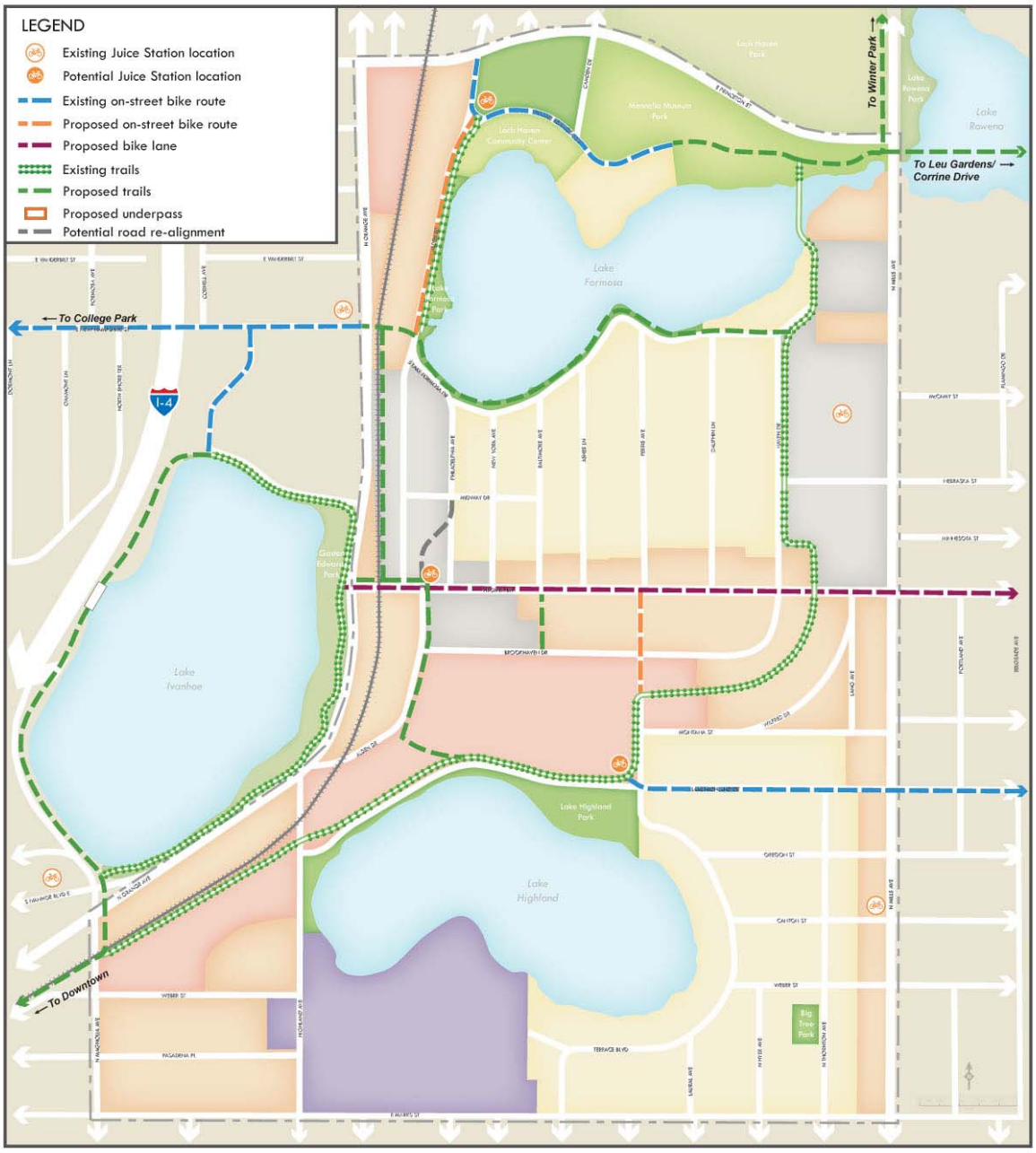


Figure 50 - Proposed Pedestrian Network

Bicycle Network: Bicycling has gained momentum as an alternative mode of transportation, for both casual users and serious bicyclists. Bicycling happens at all hours of the day and night. Enhancements that improve safety and provide facilities and amenities are important for both bicyclists and motorists. Bicycle network improvements (see Figure 52) could include:

- On-street bicycle routes
- Bike lanes or cycle track
- Additional Bike Share (Juice) stations
- Bike amenities – bike racks, repair stations, lockers
- Increased bicycle awareness – signs, markings, color
- Improved lighting for bike paths
- Extensions or spurs to the Orlando Urban Trail and other existing Trails

Figure 51 – Additional Bike Share (Juice) Stations



Bicycle Network

Figure 52 - Proposed Bicycle Network

Transit Network: In increasing numbers, people are using public transportation. Everyone benefits from public transportation – it saves money, enhances personal mobility, saves fuel and resources, reduces road congestion and travel time, improves the environment and public health, provides economic opportunities, and drives community growth and revitalization. Transit network improvements (see Figure 53) could include:

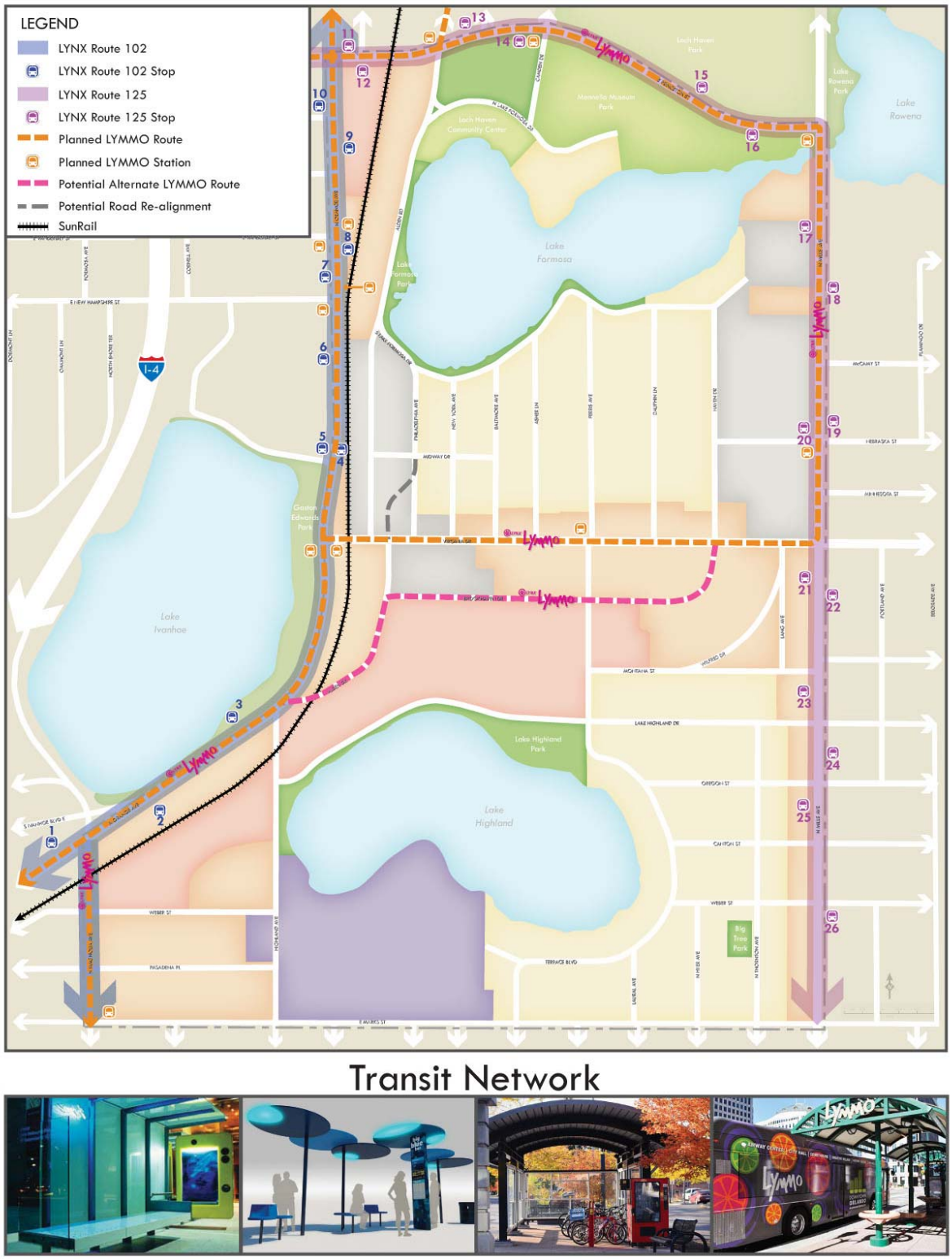
- LYMMO route expansion
- Enhanced amenities at transit stops – benches, lighting, trash receptacle
- Shelters
- Technology – digital real time route and system information, smartphone apps
- Information panels – route and schedule, cost, customer service contacts
- More local bus penetration and frequency (within regular LYNX service)

The LYMMO North Corridor Alternative Alignments Report defined a Locally Preferred Alternative (LPA) that contains two routes – one serving Florida Hospital and College Park, and the second serving Florida Hospital, Mills Park and Virginia Drive (in an east to west direction). A potential Alden Road alignment will also be considered. By extending the North Corridor route to the south end of downtown, it would intersect with east/west LYMMO routes and eventually the South corridor route when it is developed.

The route would operate primarily within existing right-of-way in mixed traffic; however, exclusive bus lanes and signal priority will be used where appropriate. Signal priority could be accommodated at approximately 10 intersections.

On-line stations would either be developed on the sidewalk, between the sidewalk and curb (in the parkway area), or through a curb extension, within the existing street right-of-way. The stations could include an enhanced shelter in most cases, passenger seating, lighting, and trash receptacle, as well as amenities such as real-time passenger information, wayfinding signage/information, ticket kiosks, bike racks and landscaping.

Figure 54 shows a summary of bus stop facilities shown on the Transit Network map (Figure 53), as well as potential improvements and amenities to encourage ridership for both current and future customers.



Transit Network

Figure 53 - Proposed Transit Network

Stop	Shelter	Bench	Trash Can	Lighting	Curb Connection	Notes
1	E		E	E (a)	E	
2	E		E	E (a)	E	
3		E	E	E (a)	E	
4		**P**	**P**	**P**	**P**	No sidewalk to stop
5		**P**	**P**	E (b)	E	
6		**P**	E	E (b)	E	
7			**P**	E (a)	E	
8			**P**	**P**	E	
9			**P**	E (a)	E	Light above tree canopy – muted illumination
10			**P**	E (a)	E	Move bus stop sign from sidewalk
11		**P**	E	E (a)	E	
12		**P**	**P**	E (a)	E	
13		**P**	E	E (a)	**P**	
14		**P**	E	E (a)	**P**	
15		**P**	**P**	E (a)	E	
16		**P**	**P**	E (a)	**P**	
17		**P**	**P**	E (a)	E	
18		**P**	**P**	E (a)	E	
19			**P**	E (b)	**P**	
20	E		E	E (b)	**P**	
21		**P**	E	E (b)	E	
22		**P**	**P**	E (a)	E	
23			**P**	E (b)	E	
24		**P**	**P**	**P**	E	Move bus stop sign from sidewalk
25			**P**	E (b)	E	
26		**P**	**P**	E (b)	E	On-street parking makes it hard for bus to pull to curb

Figure 54 – Transit Stop Facilities

Notes
E = existing feature
P = proposed feature
E (a) = lighting directly overhead
E (b) = stop located between two lights
Curb Connection: sidewalk adjacent to curb or paved connector added between sidewalk and curb to facilitate wheelchair access and bus loading/unloading

Roadway Network: Street traffic is composed of several primary user groups – residents, employees and delivery drivers who travel the area daily, visitors who make the study area a destination, and people who traverse the study area on route to other destinations. Design of the street contributes to the perception of an area and the way individuals interact with its built environment. While a variety of strategies have been recommended to improve transportation issues, it is recognized that with the gridded street network, traffic will continue to traverse the area and both cut-through traffic and congestion will occur at times. Roadway network improvements (see Figure 56) could include:

- Roadway realignment
- Traffic calming measures
- Intersection enhancement
- Complete Streets design
- Additional parking

Figure 55 – Brick Streets as Traffic Calming Measure

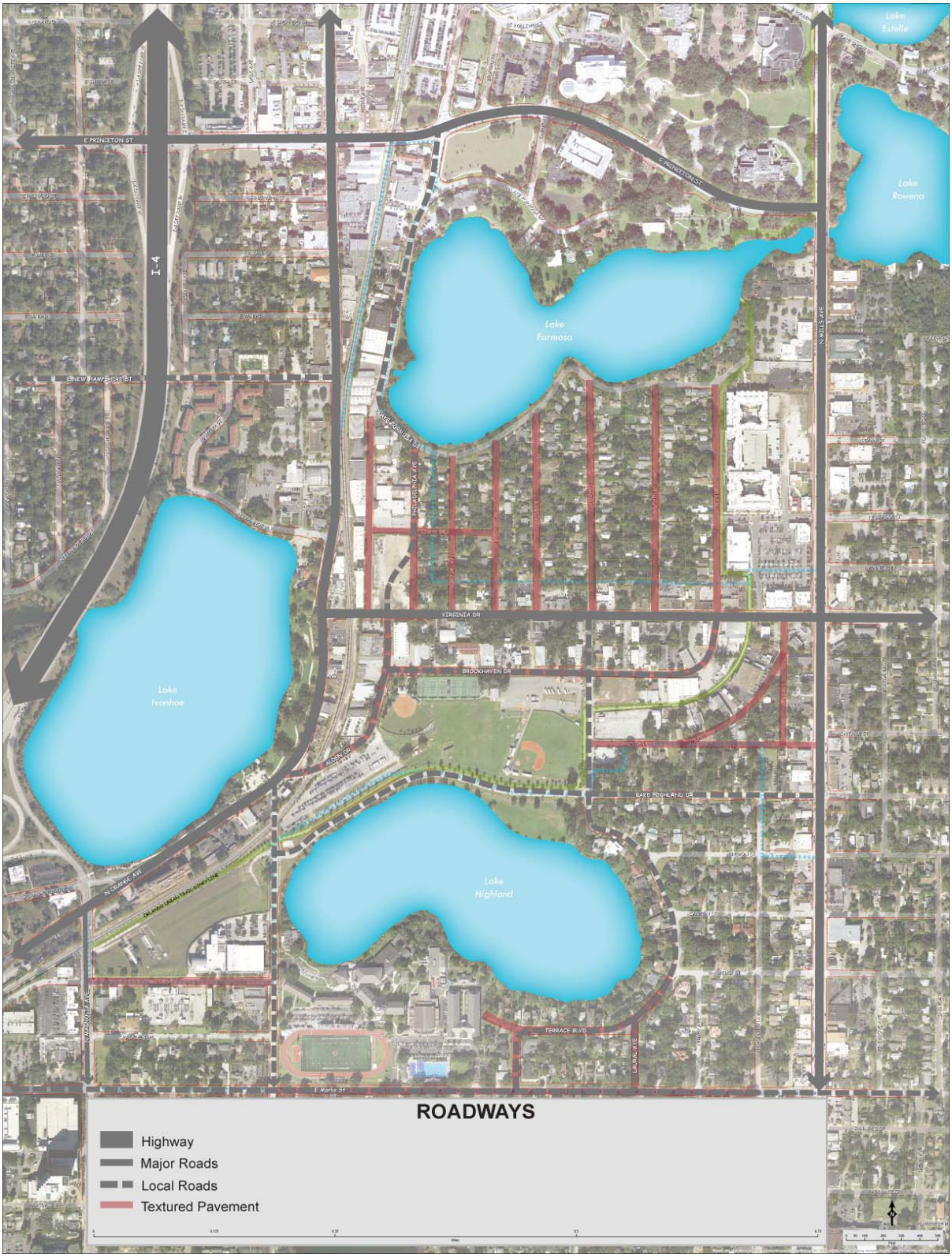


Figure 56 - Proposed Roadway Network

5. STRATEGIES

5. STRATEGIES (HOW DO WE MAKE IT A BETTER PLACE?)

The Vision will be implemented through a Strategic Plan that organizes the Vision into achievable and actionable steps that can be undertaken over time. It is a blueprint for implementation of short-, mid- and long-term priorities and actions. The Strategic Plan is intended to be a living document that can change as it is tested against time, community, resources, budget and competing needs. It will be critical for the City to keep the Plan in focus to capitalize on unforeseen opportunities that may arise that are consistent with the goals of the Vision.

It is also important to understand that while the City has a variety of useful tools at its disposal to enable and encourage desired development activity in the study area, some recommendations are ultimately market-driven and based on decisions that will be made by the private sector, such as whether to sell or develop property, redevelop a building or invest in the area. Other changes may be driven by outside funding sources such as state, regional or county monies.

5.1 SPECIFIC STRATEGIES

The Vision centers around stable connected residential neighborhoods, with a vibrant main street and emerging mixed-use nodes along the neighborhood edges and at major intersections, providing a high-quality environment that evokes a sense of pride, care, community; safety for people who live, work, and visit; and an inviting place for all people. The community and City both recognize the relationship between an attractive destination and a competitive business environment and that an aesthetically appealing corridor can attract new businesses and development, while maintaining the sought after residential character. This Vision is designed to reinforce existing values, but also encourage new investment.

The public realm is the common thread that connects the corridor, facilitates access and provides places for public gathering and recreation. The character of the public realm has a great deal of influence on the overall character and experience of the corridor. The most significant unifying element of the public realm is the design of the streetscape. The streetscape contributes to the overall perception of the study area and specifically the pedestrian experience.

The recommendations put forth in the Strategic Plan seek to unify the corridor and provide active public spaces and streets that organize the built environment of the corridor and adjacent areas and give them character and style. It guides how different

strategies fit together and development occurs over time. The Plan establishes recommendations for transforming an automobile-oriented development pattern into a more multimodal environment where people can more easily walk or bike to work, shops, restaurants, services, recreation and public transportation. Specific strategies include:

Pedestrian

An enhanced pedestrian environment will attract new residents, businesses, and visitors. The following strategies will help advance corridor transformation while creating safe public spaces and generating a greater sense of community pride:

STRATEGY P-1

Action: Enhance crosswalks at major intersections – Most of the major intersections along Mills and Orange have crosswalks consisting of white transverse lines with brick pavers or colored concrete in between. This creates a high visibility contrast to the surface of the street that is easily recognized by both drivers and pedestrians. However, there are key intersections in the study area where this treatment is absent and should be added.

Location 1: Orange Avenue/Virginia Drive intersection (also widen connecting walk between curb and sidewalk on west side of Orange)
Location 2: Orange/Highland Avenue or Alden Road intersection - depending on realignment (also widen connecting walk between curb and sidewalk on west side of Orange)
Location 3: Orange Avenue/Magnolia Avenue intersection

STRATEGY P-2

Action: Add crosswalks at minor intersections – Most intersections (except as noted above) have some variation of the continental or ladder style crosswalk. Studies by the Federal Highway Administration have shown that these high visibility crosswalks are more effective at getting drivers to yield right-of-way to pedestrians than using transverse lines. However, there are some intersections in the study area where crosswalks are absent - ladder style markings should be added to alert motorists, guide pedestrians and clarify movements.

Location 1: Virginia Drive/Ferris Avenue intersection
Location 2: Haven Drive/S. Lake Formosa Drive intersection (connection to Orlando Urban Trail)
Location 3: Alden Road/N. Lake Formosa Drive intersection
Location 4: Ferris Avenue/Brookhaven Drive intersection

STRATEGY P-3

Action: Add and/or enhance crosswalks at mid-block crossings – Unsignalized intersection crossings pose the most danger to pedestrians. Drivers often cannot

perceive a marked mid-block crossing quickly enough to react to pedestrians in the roadway. At the same time, pedestrians feel safer in a marked crosswalk and expect motorists to act more cautiously. Install ladder style crosswalks with rectangle rapid flash beacons (RRFB) or LED beacons to make mid-block crossings more easily identifiable to both motorists and pedestrians. Consider adding advance yield pavement markings. Manual push-button or automated passive (video or infrared) devices should be utilized for pedestrian detection and beacon activation.

Location 1: Baltimore Avenue intersection at Virginia Drive
Location 2: Dauphin Lane intersection at Virginia Drive
Location 3: Lake Highland Drive (see Figure 27)
Location 4: Ferris Avenue at the Orlando Urban Trail

STRATEGY P-4
Action: Add curb ramps – Curb ramps provide access between a curbed sidewalk and roadway for people with disabilities. Without them, it is often difficult (or impossible) for a person using a wheelchair, walker or other mobility device to cross the street. Two accessible sidewalk ramps must be provided at all street corners. In addition to street intersection locations, accessible ramps must be provided at all access drives, alleys, and any other location where sidewalks intersect with vehicular zones and where existing grades require the use of ramps to maintain accessible routes.

Location 1: Haven Drive/S. Lake Formosa Drive intersection (connection to Orlando Urban Trial)
Location 2: Sidewalk extensions (see Figure 43)

STRATEGY P-5
Action: Enhance transitions at curb ramps – The detectable warning surface at the bottom of the curb ramp alerts visually impaired users of the transition between the sidewalk and roadway. The warning surface must be installed across the full width of the ramp and contrast visually with the adjoining pavement surface. There are a variety of detectable warning surface treatments and widths at curb ramps in the study area. The City has begun to use polyurethane mats with truncated domes at ramps and grade changes in the study area. Expand this program wherever possible.

Location 1: Sidewalk extensions (see Figure 43)
Location 2: Retrofitting, new development, and as maintenance issues arise

STRATEGY P-6
Action: Improve mobility around curb ramps – There must be a landing at the top of the curb ramp so that a wheelchair can turn without having to negotiate the sloped side flares of the ramp. The landing also improves through travel on the sidewalk so that all users do not have to go through the curb ramp. Provide a landing or bypass at

sidewalks adjacent to curb ramps to better accommodate both wheelchair users and pedestrian through travel.

Location: New development or new transit stops

STRATEGY P-7

Action: Define a streetscape palette – The use of similar streetscape elements in the study area can provide greater visual continuity. While the streetscape elements may differ from area to area based on functionality, a common style creates organization throughout the corridor. Currently, there are different types of benches, trash receptacles, lights and signs along the corridor. Coordinate with Main Street Districts to create a palette of streetscape elements that can be used throughout the corridor. Change out non-conforming elements as time and funding permit. Materials should embrace creative designs and the use of metal to embrace the industrial and creative past of the area.

Location: Throughout the study area

STRATEGY P-8

Action: Add wayfinding – At the pedestrian level, wayfinding should incorporate maps and informational devices to tell visitors where they are, where they want to go, and how they get there. Visitors are more inclined to walk to destinations and venture further knowing that wayfinding information will be available when and if they need it. The City has begun a wayfinding program. Wayfinding should also include kiosks at parking areas with maps, businesses, and other information.

Location 1: Along the Orlando Urban Trail near development nodes
Location 2: At entrances to the study area – Orange Avenue/Princeton Street intersection, Orange Avenue/Magnolia Avenue intersection, Orange Avenue/Virginia Drive intersection, and Mills Avenue/Virginia Drive intersection (or at the Orlando Urban Trail)
Location 3: Near the Florida Hospital Health Village SunRail Station

STRATEGY P-9

Action: Add trail markers – Trail markers can be either reflective surface markers or posts, but their purpose is to permanently mark paths with distance numbers and direction, both as a navigational guide for path users and as a location guide in case of emergency.

Location: Along Orlando Urban Trail – this should be part of a larger program that coordinates markers throughout the entire City and County trail system to create a unified location network

STRATEGY P-10

Action: Add sidewalks – Sidewalks form the primary pedestrian circulation system and provide a safe and convenient mobility network for users of all ages and abilities. Sidewalks minimize conflicts between vehicles, pedestrians and bicyclists. The City has a goal to provide a continuous sidewalk on both sides of every public street. Gaps in the sidewalk network in the study area should be eliminated to provide an interconnected system of walks along all streets.

Location: As shown on the Pedestrian Network map (see Figure 43)

STRATEGY P-11

Action: Add multi-use paths – Multi-use paths create an active transportation corridor through the built environment. They are generally separate from roadways and are designed to provide people a variety of travel choices. Paths are an amenity that enhance the community by connecting residential areas, retail and commercial nodes, education facilities and recreation areas. Paths should be added not only to provide connections within the study area, but also provide connections through the study area to adjacent urban areas.

Location 1: West side of Lake Ivanhoe (complete loop around lake)
Location 2: East side of SunRail tracks starting at Virginia Drive and going south to Alden Road (continuation of the trail proposed by The Yard)
Location 3: S. Lake Formosa Drive between Alden Road and Haven Drive (see Figure 27)

STRATEGY P-12

Action: Add enhanced pedestrian phase at intersection crossings – A leading pedestrian interval (LPI) gives pedestrians an advance walk signal before motorists get a green signal, giving the pedestrian several seconds (usually 3-6) to start walking in the crosswalk before the parallel traffic gets the green signal. This makes pedestrians more visible to motorists and motorists are more likely to yield to them. To implement a LPI, the signal should be re-timed and right turn on red should be prohibited across the crosswalk.

Location 1: Orange Avenue/Virginia Drive intersection
Location 2: Orange Avenue/Highland Avenue intersection
Location 3: Mills Avenue/Virginia Drive intersection

STRATEGY P-13

Action: Add raised crosswalk– A raised crosswalk is a traffic calming device that calms traffic and makes pedestrians more visible to motorists by keeping the crossing at grade with the sidewalk. Since Virginia Drive has no signalized pedestrian crossings between Orange Avenue and Mills Avenue, a raised crosswalk midway would effectively serve as an unsignalized crossing and slow traffic. The same is true for Lake Highland Drive. There are several design issues that would need to be considered,

including potential impediments to transit and emergency vehicles, stormwater surface drainage flows, and noise.

Location 1: Virginia Drive/Ferris Avenue intersection (location for proposed LYMMO stop)
Location 2: Lake Highland Drive (see Figure 27)

Bicycle

While the framework for a connected bicycle network is mostly in place along the corridor, there are ways to improve that framework to provide greater connectivity, as well as enhance safety for both bicyclists and motorists. There are also ways to incorporate amenities into both public and private development that create a more bicycle-friendly atmosphere in the study area.

The following strategies consider enhancements to both routes and amenities that can help maintain and promote a bicycle-friendly environment:

STRATEGY B-1
Action: Add bike lanes – A bike lane is defined as a portion of the roadway that has been designated by striping, signage and pavement markings for the preferential or exclusive use of bicyclists. They enable bicyclists to ride at their preferred speed without interference from vehicular traffic, facilitate predictable movements and positioning between bicyclists and motorists, and visually remind motorists of bicyclists' right to the street. Bike lanes, buffered bike lanes or a cycle track should be added to provide better connections through the study area and to the Orlando Urban Trail.

Location: Virginia Drive

STRATEGY B-2
Action: Enhance bicycle awareness through lane markings – Cross-over locations represent primary collision points for bicyclists. Driveways and intersections are often conflict points. Good bike lane marking design alerts motorists to bicycles, indicates to motorists and bicyclists where bicyclists may ride and guides bicyclists through intersections. Enhanced pavement markings should be added at cross-over points to raise awareness for both bicyclists and motorists to potential conflict areas as well as guide bicyclists.

Location: Virginia Drive (including sharrows for the interim cross-section project and transitional markings for the bicycle lanes with the final cross-section project)

STRATEGY B-3
Action: Modify intersection operations for bicycles – Timing treatments can help bicyclists travel safely through intersections. Bicycle sensitive loops can be added or modified at traffic signals to better detect bicyclists. Pavement markings will show

bicyclists where to position themselves to trigger the traffic signal. At larger intersections, a bicycle signal can be added to provide an exclusive signal phase for bicyclists traveling through the intersection. Signals can be activated with pavement detectors, video or push buttons.

Location 1: Virginia Drive/Orange Avenue intersection
Location 2: Virginia Drive/Mills Avenue intersection

STRATEGY B-4
Action: Expand short term parking options – Short term parking, usually bike racks, is intended for stays of less than two hours, with typical users being customers of retail, dining, and personal or professional services. As commercial uses expand in the study area, mobility options should expand as well. Bike parking should be located where easily visible, with a clear line of sight from the building entrance, near busy areas and the street. If racks are located too far away, bicyclists will often lock their bike to a closer piece of street furniture or a tree. Racks should be located no more than 50 feet from building entrances and be installed per ADA guidelines. Racks should be sturdy and well-anchored and support bikes by their frame at two points. Weather-protected bicycle parking is encouraged. Popular destinations with existing bike racks should consider expanding spaces as appropriate to facilitate demand.

Location: Throughout the study area as appropriate at commercial uses or nodes, especially near the Orlando Urban Trail

STRATEGY B-5
Action: Incorporate bicycle amenities – Bicycle amenities can encourage more people to bike to their destination and should be encouraged where appropriate in new development. A changing area with showers integrated into building bathroom facilities provides a place to clean up before starting work. Lockers, preferably close to shower facilities, provide commuters with a safe and secure place to store clothing, helmets and other accessories while working. This is especially helpful where employees, such as restaurant workers, do not have desks or permanent work stations to store items. A workshop area or equipment station with tools and air pump located close to long-term parking or trailhead provides a place to make quick repairs such as a flat tire or brake adjustment.

Location: As appropriate with new development and at commercial nodes, especially near the Orlando Urban Trail

STRATEGY B-6
Action: Add Juice stations – If bicycling is easy and convenient, more people will get out of their cars – improving health, decreasing congestion and improving the environment. Based on use maps, bike share is heavily used throughout the study

area. Juice Orlando Bike Share should be engaged to determine the best locations to expand as development occurs. Suggestions for locations include:

Location 1: Orlando Urban Trial (across from Lake Highland Park at bike repair station)
Location 2: The Yard development
Location 3: Alden Road/Princeton Street intersection (park area)

STRATEGY B-7
Action: Design grade separated pedestrian and bicyclist structure – Although the construction of a grade-separated facility is a costly endeavor, an underpass beneath the SunRail tracks would allow uninterrupted flow of bicycle and pedestrian movement separate from vehicular traffic, help facilitate more direct east/west movements and complete the transportation network through the study area and to the Orlando Urban Trail. The aesthetic qualities of a structure are as important as the design of the structure itself – if it is not attractive, people will not use it. Therefore, provisions for landscaping, lighting, wall treatments, public art and other features should be given equal consideration during the design process.

Location: Under SunRail tracks across from the Orange Avenue/E. New Hampshire Street intersection

STRATEGY B-8
Action: Improve lighting along bicycle trails – Although the Orlando Urban Trail was built for recreational purposes, it is also relied on for daily transportation use. Many trips occur after dark, especially on weekends and in the winter. Pedestrian scale lighting should be utilized along the Orlando Urban Trail as decorative elements, landscape accents and security illumination. Lighting will encourage more use in morning and evening hours, as well as make the Orlando Urban Trail a focal point of the public realm and an accessible community amenity. Lighting design should be coordinated with the Orlando Police Department and Families, Parks and Recreation Department guidelines to maximize safety.

Location: Orlando Urban Trail (coordinate with Strategy P-11) – this should be part of a larger program that coordinates lighting throughout the downtown

Transit

Public transportation is important to the future of this area, providing more capacity, creating more choices, and helping address the needs of a growing and changing population. Strategies that enhance the benefits of public transportation include:

STRATEGY T-1
Action: Ensure accessibility at stops – While all LYNX buses are wheelchair accessible, there are still some stops that are not. Transit stops should be enhanced

and obstacles removed to ensure that access, maneuvering space, height, slope and clearances at all stops meet ADA requirements where possible.

Location: See Transit Network Plan (Figures 53 and 54)

STRATEGY T-2
Action: Provide basic amenities – The design of bus stop waiting areas plays a significant role in a person's decision to use transit. Passenger amenities improve comfort and enhance security. At a minimum, all transit stops should have benches (where room allows); a bus stop sign that identifies the location as a designated bus stop, provides route specific information for that location, and displays a transit information telephone number; and a trash receptacle. If existing street lights do not provide proper illumination for nighttime safety, pedestrian scale lighting should be added. Lighting should be solar-powered where possible.

Location: See Transit Network Plan (Figures 53 and 54)

STRATEGY T-3
Action: Create information panels – Transit users need to know three things to feel comfortable riding public transportation – route, schedule and timing. In coordination with LYNX, transit shelters should be equipped with ITS (intelligent transportation systems) technology that includes real-time next bus arrival information, schedules and routes, and panic buttons or call boxes. At stops without a shelter, a kiosk or pole with route information and lighting should be added.

Location: LYMMO and LYNX stops as appropriate

STRATEGY T-4
Action: Provide shelters – Transit shelters have been installed at select bus stops in the study area to provide weather protection as well as seating for waiting passengers at stops with high ridership. The City should coordinate efforts with LYNX and the Main Street Districts to add new shelters in the study area to encourage ridership. The Main Street Districts may have designs they would like to incorporate along the corridor to help brand identity.

Location: LYMMO and LYNX stops as appropriate

Roadway

A clear street network and hierarchy provides logical and safe routes for pedestrian, bicycle, and vehicular traffic and minimizes conflicts between the different modes. Appropriate strategies to improve the street environment include:

STRATEGY R-1

Action: Add bulb outs with grass and street trees – Bulb outs along roadways narrow the perceived roadway width, acting as a traffic calming device. The area behind the bulb out expands the landscape zone, providing room for street trees, which provide shade and help reduce vehicle speeds.

Location: Lake Highland Drive between Highland Avenue and Ferris Avenue (see Figure 27)

STRATEGY R-2

Action: Add intersection bulb outs – Bulb outs at intersections improve safety for both pedestrians and motorists, increase visibility of pedestrians, reduce speed of turning vehicles, encourage pedestrians to cross at designated locations, prevent vehicles from parking at corners and blocking sight lines, shorten crossing distance and reduce pedestrian exposure.

Location 1: N. Orange Avenue (if on-street parking is added at Gaston Edwards Park)
Location 2: N. Orange Avenue/E. New Hampshire intersection (if underpass beneath railroad tracks is constructed)

STRATEGY R-3

Action: Add brick pavement – Brick pavement, done with pavers that vary slightly in thickness, acts as an efficient traffic calming device – it produces a rough sound as vehicles ride over them, causing drivers to reduce their speed. It creates safe and attractive streets and reduces cut-through traffic. Roadways where brick pavement could be an option include:

Location 1: Virginia Drive
Location 2: Lake Highland Drive from Ferris Avenue to Mills Avenue
Location 3: Terrace Boulevard from south of Weber Street (match existing brick pavement) to Lake Highland Drive

STRATEGY R-4

Action: Realign roadways – As discussed earlier in this report, part of the multimodal transportation network performance development involved modeling new roadway alignments within the study area. This is part of the City's long range plan, and notwithstanding the results of that analysis and stakeholder input, both options should be maintained for now.

Location: Alden Road (south of Virginia Drive)

STRATEGY R-5

Action: Enhance intersections – There are several intersections within the study area where the combination of angled streets and a wide curb turning radius make the intersection more of a "yield" condition than a "stop" condition. Reducing the curb

radius and repositioning the stop bar and stop sign will help slow traffic and make the intersection safer for both vehicles and pedestrians.

Location 1: Oregon Street/Terrace Boulevard intersection
Location 2: Canton Street/Terrace Boulevard intersection
Location 3: Weber Street/Terrace Boulevard intersection

STRATEGY R-6
Action: Add wayfinding – Wayfinding incorporates signs and directional devices that tell visitors where they are, where they want to go, and how to get there. Wayfinding provides direction for people on the move. A successful wayfinding system should provide information for visitors to identify and orient their location within an area or space, reinforce they are traveling in the correct direction, and identify their destination upon arrival. The City has an established vehicular wayfinding program and new wayfinding should be coordinated with the City and Main Street Districts. Wayfinding should direct vehicles to parking in the study area. The Orlando Urban Trail has pedestrian- and bicycling-oriented wayfinding, which should also be expanded to areas outside the Trail.

Location: Throughout the study area

STRATEGY R-7
Action: Add radar speed signs – Radar speed signs are traffic calming devices that slow speeders down by alerting them of their speed. They operate based on a "feedback loop" theory – when we are presented information about our performance, we tend to notice and improve. Speed radar display signs have been shown to slow drivers an average of 10%, usually for several miles. An enforcement presence can add to that efficiency. Signs can utilize battery or solar power and can be programmed with a reporting mode to collect data for analysis. While the City already employs this strategy, it could be expanded to more locations (portable signs) or in permanent locations with additional funding, such as:

Location 1: Virginia Drive
Location 2: Brookhaven Drive
Location 3: Lake Highland Drive
Location 4: Terrace Boulevard
Location 5: Alden Road

STRATEGY R-8
Action: Narrow travel lanes – Narrowing the width of travel lanes has several benefits – it slows traffic, reduces vehicular crashes, increases multimodal safety and provides additional room for other roadway or streetscape amenities. Lanes as narrow as 10-feet are acceptable and preferred by the City on many local collector streets, such as:

Location 1: Virginia Drive
Location 2: Brookhaven Drive

Infrastructure

Infrastructure is the combination of fundamental services and systems that support a community. The entire study area benefits from a dependable infrastructure framework that provides a healthy, efficient and safe community. Strategies that enhance infrastructure throughout the corridor include:

STRATEGY I-1

Action: Increase parking – Parking is needed now; as the study area transforms, even more parking will be needed to satisfy the needs of users and businesses. A prudent parking strategy, as discussed earlier in this report, is crucial for creating new public spaces and keeping parking creep out of residential neighborhoods.

Location 1: New surface parking lot in the OUC parcels (706 and 714 Brookhaven Drive) at the southeast corner of Ferris Avenue/Brookhaven Drive intersection
Location 2: On-street parking on Virginia Drive
Location 3: On-street parking on Brookhaven Drive
Location 4: On-street parking on Orange Avenue between NE Ivanhoe Boulevard and Highland Avenue in front of Gaston Edwards Park (eliminate outside southbound travel lane)

STRATEGY I-2

Action: Establish parking partnerships – Shared parking can be utilized where land uses have different parking demand patterns and can use the same parking spaces. While the City has limited control over private lots, it should pursue shared parking agreements where feasible. There are several lots near development nodes where additional parking would help curb parking creep into adjacent neighborhood areas.

Location 1: Mills Avenue (south of Virginia Drive)
Location 2: Virginia Drive (east of Ferris Avenue)
Location 3: Brookhaven Drive (east of Ferris Avenue)
Location 4: Orange Avenue (north of NE Ivanhoe Boulevard)

STRATEGY I-3

Action: Provide clear parking messaging – For shared parking to be effective, consistent and clear signage should be created that not only encourages parking, but spells out all conditions of use. Lots that prevent parking should also be clearly signed (many existing signs are unreadable).

Location: As appropriate throughout the study area

STRATEGY I-4

Action: Underground utilities – Putting utility lines underground serves many purposes – it improves aesthetics by eliminating webs of cables stretching along and across the corridor and improves safety by eliminating damage from tree branches or storms. It increases reliability by upgrading infrastructure, property values by improving aesthetics, and it reduces visual clutter and increases location available for street trees and other streetscape elements. Realizing that undergrounding utilities is a major work effort that requires a great deal of planning and coordination, it should be piggy-backed with other work efforts along the corridor to create efficiencies and minimize disruptions.

Location: Virginia Drive

STRATEGY I-5

Action: Implement LID measures – The goal of LID (low impact development) is to use techniques that infiltrate, filter, treat, store, and evaporate runoff close to its source instead of utilizing a network of inlets and pipes. Almost all components of the urban environment have the potential to serve as part of the stormwater management process using LID, including open space, walls, rooftops, streetscapes, parking lots and sidewalks. LID measures that might be appropriate in the study area include rooftop runoff landscape planters, rainwater harvesting, rain gardens, permeable pavement and bioswales.

Location: Throughout the study area

STRATEGY I-6

Action: Encourage environmental sustainability – The Virginia Drive corridor should approach sustainability to not only provide for today's needs but also provide for the needs of the next generation. The City has a successful Green Works Orlando program, but can become an even more responsible caretaker for both the people they serve and the environment in which they live by requiring that sustainability planning and management be included with all development. All public and private development should include infrastructure investments that reduce pollution, protect resources, and balance the needs of the natural and manmade environments. Sustainable design techniques the City should encourage include green building development and/or retrofitting, green roofs and walls, solar power, electric vehicle charging stations, and expanded recycling programs.

Location: Throughout the study area

STRATEGY I-7

Action: Maintain streets and sidewalks – There are areas along the corridor where debris has collected along the curb line or road edge, causing safety issues, especially

for bicyclists. Sidewalk widths are narrowed and clear heights have been reduced by overhanging tree branches, causing problems not only for pedestrians, but bicyclists riding on the sidewalk. Residents or business owners should notify the City if unsafe conditions are noticed that need maintenance work beyond that which could easily be done by an individual. They should also consider adopting roadway segments for litter removal and general maintenance activities.

Location: Throughout the study area

STRATEGY I-8

Action: Improve water quality in lakes – Runoff from streets carries many pollutants into water bodies – sediment, oil, grease, coolant, fertilizers, pesticides, pet wastes and heavy metals. These pollutants damage lake vegetation and harm aquatic life. The City's Streets and Stormwater Department monitors water quality through the Water Atlas Program. Discharge of polluting matter in natural waters is prohibited by the City and can result in fines.

New development can control runoff using a variety of solutions such as LID measures, structural controls and pollution control strategies. Existing neighborhood areas can reduce runoff into lakes by retrofitting control structures, but more importantly by educating residents about ways to reduce stormwater pollution, such as cutting down on the use of fertilizers and pesticides, picking up after pets, washing cars at a commercial location instead of in the driveway, and making smart growth choices.

Location: Lake Formosa and Lake Highland

Aesthetic

Aesthetics shape our awareness and influence how we see our surroundings. It helps define spaces, engage people and activate the street. It helps organize places and can help people feel calm and safe within the urban environment. Aesthetics play an important part in how people experience the study area, both its built and natural environments. Aesthetic strategies that can help make the Virginia Drive area identifiable within the metropolitan area include:

STRATEGY A-1

Action: Create gateways and identifiers – Each entry or key intersection into the study area should be marked with a gateway feature – a monument, sign, sculpture, public space, art installation, or combination of elements – that tells visitors they are arriving in a special place. These identifiers begin the branding and character of the corridor and can become iconic symbols of the corridor. The City should coordinate with the Main Street Districts to create a corridor identity program.

Location: As identified in coordination with Main Street Districts; potential locations at Virginia Drive/Orange Avenue intersection, Virginia Drive/Mills Avenue intersection, Orange Avenue/Princeton Street intersection, Orange Avenue/Magnolia Avenue intersection, the Orlando Urban Trail crossing of Virginia and the Virginia/Alden intersection.

STRATEGY A-2

Action: Expand public art installations – Public art should be found in many places along the study area – in parks, along streets and trails, and in civic spaces and buildings. It engages people in their daily life and helps draw attention to places, events, ideas, history, culture, time and memories. Public art can provide both aesthetic and economic impacts. The Main Street Districts should develop a public art program as part of the larger corridor theming. This will help connect different areas, both visually and in character, and create distinctive landmarks throughout the study area.

Location: Throughout the study area

STRATEGY A-3

Action: Add trees – Street trees are an essential element in any streetscape, especially in Florida. Trees add character to the urban environment. They help soften the built environment, define spaces, buffer roadway traffic, provide shade, lower temperatures, and filter dust and pollutants from the air. The Virginia Drive area has established neighborhoods with a varied palette of trees that frame streets and create scale. As development occurs, whether private investment or in the public realm, landscaping should be an integral part of the overall design scheme to provide continuity in the visual appearance of the corridor, increase pedestrian safety and comfort, and accentuate architecture, hardscape and key intersections. Trees should be planted in planter strips along the roadway or in bulb outs. They should be limbed up to 7-feet to create a comfortable canopy and avoid blocking sight lines. A street tree survey should be undertaken to identify locations where street trees are missing. Residents can also participate in the City programs for a free street tree or on-site tree.

Location: Throughout the study area

STRATEGY A-4

Action: Create places – An active public realm helps strengthen the connection between people and the places they share. It promotes a sense of community and capitalizes on area assets to create inviting places for social interaction. The City should encourage the design of new public spaces as part of both civic improvements and private development to maximize opportunities to enhance people's well-being and the quality of life in the study area, provide views, and create focal points.

Location: As appropriate in association with new development projects and in coordination with Main Street Districts

STRATEGY A-5

Action: Discourage commercial parking in residential areas – If strategies to increase commercial parking fail to curb use of on-street parking on residential streets by commercial users, the City should consider establishing a pilot program for residential parking passes. Parking passes are common in large cities and can help prevent late-night disruptions as people return to their vehicles. However, there is substantial enforcement involved and the City may need to charge fees for parking passes.

Location: Lake Formosa and Park Lake/Highland neighborhoods

STRATEGY A-6

Action: Remove portion of covered fence along OUC lot – There is a green fabric privacy screen covering the fencing around the OUC lot (parking lot remediation project). The northwest corner of the lot sits on Ferris Avenue adjacent to the Orlando Urban Trail. The privacy screen creates a situation where vehicles traveling north on Ferris cannot see people traveling west on the trail as they approach the street, creating a potentially dangerous situation where accidents could easily occur. The privacy screen needs to be removed, or if a secure property is desired, the fence needs to be relocated to open that intersection for better visibility.

Location: OUC lot (701 Montana Street)

STRATEGY A-7

Action: Improve appearance and use of lake edges – Maintenance along lake edges to selectively prune low-hanging tree branches, remove invasive aquatic growth, trim grass, and remove debris can go a long way to make Lake Formosa and Lake Highland more attractive community amenities. Benches or a small dock could provide a place for people to experience the natural features along the water's edge.

Location: Lake Formosa and Lake Highland

STRATEGY A-8

Action: Encourage parcels to directly access the Orlando Urban Trail – Along the Orlando Urban Trail, between Ferris Avenue and Virginia Drive, the trail runs behind lots and is fenced off, making it seem tight and uninviting. As the area transforms and redevelops, the City should encourage parcels to open to the trail, creating second frontages or areas for outdoor plazas or cafes. This would effectively widen the trail and make it more inviting, create new destinations and stopping points, light the trail for better nighttime use, and put more eyes on the trail for safety.

Location: Orlando Urban Trail

STRATEGY A-9

Action: Establish a brand – Branding helps differentiate the Virginia Drive corridor from other locations in terms of character, activities and marketing, and creates a unique identity from which to draw new investments, business and residents. There are many benefits to developing a brand strategy, including increased awareness, competitiveness, higher returns on investments, organized development efforts, and community pride and sense of purpose. Branding will help the study area focus on how it wishes to grow in the future and it encourages stakeholders to think beyond its current circumstances to create new opportunities.

Branding and theming is an important component of this Strategic Plan and the future look and feel of the study area. Image is everything; therefore, the branding framework should focus on the physical environment and coordinating design elements in the public realm, especially the streetscape elements found in the sidewalk zones. Building form should emphasize the industrial and creative influences of the past, with modern interpretations designed to tie elements together and complement other projects.

Location: Throughout the study area

STRATEGY A-10

Action: Protect community character by adopting design guidelines – To protect the existing character of the community, design guidelines should be proposed that help guide the City to maintain the existing feel and scale of the area, while allowing for changes with new growth and redevelopment.

For residential areas within the study area:

- Preserve and add to the natural landscape and urban habitat using native shrubs and trees characteristic of central Florida
- Maintain a fine grain development pattern
- Improve access and views of the lakes – some views could be opened by pruning away low-hanging tree branches
- Recognize and preserve the history of the area and the historic architecture of older homes
- Protect residential areas from commercial encroachment – changes to the residential character are discouraged

For commercial and mixed use areas within the study area:

- Promote the location as an arts destination with a strong relationship to Loch Haven Park and the local arts scene

- Build on existing assets and keep up a neat appearance of main streets – clean and landscape with buildings fronting the street
- Provide gateway treatments at the border of districts using distinctive signs, structures, landscape treatments, logos, fonts, materials, elements and lighting
- Maintain the layout of a gridded street network, with short block lengths, consistent lot sizes and a unified urban form along streets
- Provide parking behind buildings, with cross-access to eliminate curb cuts
- Hide infrastructure clutter by undergrounding overhead utilities and keeping signs on buildings, eliminating pole signs where possible
- Maintain clear design themes, with consistent use of materials, styling and design details
- Scale, massing and architectural style of infill buildings should respect the context of the location and should avoid abrupt discrepancies in scale and height
- Incorporate the industrial and creative past of the area into architectural styling and detailing where appropriate
- Maintain commercial uses on the street level along Orange Avenue – if the hospital expands into this area, mixed use buildings should be designed with offices and/or residential uses above the commercial
- Save and protect special or historic places and buildings that are unique to the area
- Preserve historic live oaks

Location: Throughout the study area

6. IMPLEMENTATION

6. IMPLEMENTATION (HOW DO WE GET THERE?)

The City has a variety of useful tools in their control to enable and encourage desired development activities in the study area. Implementation will require moving forward with strategies that allow for proposed improvements and related development that further the goals and objectives of the Vision.

6.1 STRATEGIC PLAN

Implementing the Vision for the study area will be accomplished through a strategic action plan that organizes the Vision into achievable and actionable steps that can be undertaken over time. The Strategic Plan is intended to be a living document subject to change as the Plan is tested against time and market conditions, as well as assumptions among partners and stakeholders. It will be critical to keep focus on the action plan, not only as an organizing framework but to capitalize on unforeseen opportunities that may arise that are consistent with the vision.

Figure 57 identifies projects and actions for the study area. These items have been described in detail earlier in this report. The targeted horizons demonstrate a suggested time frame for implementation - identifying short-term (less than three years), mid-term (three to seven years) and long-term (greater than seven years) projects and priorities. Short-term projects are usually easily undertaken and can show immediate progress towards corridor goals. These projects are usually prioritized based on preferential locations that provide the most impact and visibility. Many projects are represented in multiple time frames, meaning they can generally be planned as stand-alone projects or can be implemented in phases, and are not dependent on roadway or infrastructure improvements the City may be planning for long-term implementation.

Several strategies will involve combinations of work to support major infrastructure projects. These include:

- Interim Virginia Drive streetscape
- Final Virginia Drive streetscape
- Brookhaven streetscape
- Lake Highland Drive streetscape
- Alden Road realignment
- Pedestrian underpass
- Lake Formosa path

IMPLEMENTATION STRATEGIES					
This table identifies general strategies for the study area. The text preceding this table includes a more detailed discussion of each recommendation. Costs are planning level cost estimates only.			Short-Term <3 yrs	Mid-Term 3-7 yrs	Long-Term >7 yrs
No.	**Action Item**	**Cost**	**Targeted Horizon**		
PEDESTRIAN					
P-1	Crosswalks at major intersections	7,500 ea	X		
P-2	Crosswalks at minor intersections	2,500 ea	X		
P-3	Crosswalks at mid-block crossings	4,000 ea	X		
P-4	Curb ramps	1,000 ea	X		
P-5	Curb ramp transitions	500 ea	X		
P-6	Improve mobility around curb ramps	TBD	X		
P-7	Streetscape palette	Staff time	X		
P-8	Wayfinding	5,000 ea	X		
P-9	Trail markers	500 ea	X		
P-10	Sidewalks	50-75/LF	X	X	X
P-11	Multi-use paths	100-150/LF	X	X	X
P-12	Enhanced pedestrian crossing phase	TBD	X		
P-13	Raised crosswalks (speed table)	40,000		X	X
BICYCLE					
B-1	Bike lanes	100/LF			X
B-2	Enhance bicycle awareness	10/LF	X		
B-3	Modify intersection operations for bicycles	TBD	X		
B-4	Short-term parking options	500 ea	X		
B-5	Bicycle amenities	1,000 ea	X		
B-6	Add Juice stations	TBD	X		
B-7	Grade separated underpass	1,000,000			X
B-8	Trail lighting	500 ea	X		
TRANSIT					
T-1	Accessibility at stops	TBD	X		
T-2	Basic rider amenities	3,000 ea	X		
T-3	Information panels	10,000 ea	X	X	
T-4	Shelters	8,000 ea	X	X	
ROADWAY					
R-1	Bulb outs with grass and street trees	3,000 ea	X		
R-2	Intersection bulb outs	1,500 ea	X		
R-3	Brick pavement	500/LF		X	
R-4	Realign roadways	TBD		X	X
R-5	Enhance intersections	TBD	X		

IMPLEMENTATION STRATEGIES					
This table identifies general strategies for the study area. The text preceding this table includes a more detailed discussion of each recommendation. Costs are planning level cost estimates only.			Short-Term <3 yrs	Mid-Term 3-7 yrs	Long-Term >7 yrs
No.	**Action Item**	**Cost**	**Targeted Horizon**		
R-6	Wayfinding	5,000 ea	X		
R-7	Radar speed feedback signs	4,000 ea	X		
R-8	Narrow travel lanes	TBD		X	X
INFRASTRUCTURE					
I-1	Increase parking	TBD	X	X	X
I-2	Establish parking partnerships	Staff time	X		
I-3	Clear parking messaging	1,000 ea	X		
I-4	Underground utilities	TBD			X
I-5	LID measures	TBD	X		
I-6	Encourage environmental sustainability	Staff time	X	X	X
I-7	Enhance maintenance activities	Staff time	X	X	X
I-8	Improve water quality in lakes	TBD	X		
AESTHETIC					
A-1	Gateways/identifiers	25,000 ea	X	X	
A-2	Public art installations	TBD	X	X	X
A-3	Add street/shade trees	1,000 ea	X	X	X
A-4	Create places	TBD	X	X	X
A-5	Neighborhood parking passes	TBD	X	X	
A-6	Remove covered fencing from OUC lot	No cost	X		
A-7	Improve appearance of lakes	Staff time	X		
A-8	Parcel Access to Orlando Urban Trail	Staff time	X		
A-9	Establish a brand and theming	Staff time	X	X	X
A-10	Design guidelines	Staff time	X		

Figure 57 - Implementation Strategies Matrix

6.2 POLICY

This Plan not only establishes a unifying Vision for the future of the Virginia/Lake Highland area, it identifies a wide range of potential actions and projects to implement that Vision over time. Realizing the vision and implementing the projects will take concerted and coordinated action by the City through policy actions and long-term partnerships among many groups and entities.

6.3 FUNDING

While some implementation strategies require limited capital investment, other recommendations such as enhancements to the pedestrian environment and other infrastructure improvements to promote multimodal mobility and accessibility will require a more intensive capital investment. Funding these improvements will likely require one or more defined revenue sources to supplement what may be available from other public sources. Using tax increment financing (TIF) would be a natural use of a common redevelopment tool that can be used for economic opportunities and improvement of the tax base. Special tax and/or assessment districts are also methods where infrastructure projects could be essentially self-financed by the development that uses them. More broadly, a mobility fee for the entire study area could be used to fund transportation infrastructure. Mobility fees differ from conventional roadway impact fees in that they enable funding for non-roadway improvement projects as well.

6.4 MEASURING SUCCESS

This Strategic Plan provides a range of recommendations so that as priorities or opportunities arise, the City can make progress in transforming the study area so it can achieve its full economic and community development potential. The actions identified are those most important to initiating change. Over time, the City will need to check in and track the collective progress towards achieving the corridor vision. To ensure implementation is sustained over the long time periods required for redevelopment, the City should establish a review of the progress in achieving the desired community outcomes.

It is recommended that the City establish a short list of indicators and benchmarks that it can report progress toward on an annual basis to demonstrate the benefits of improvements and changes along the corridor. This will be an important tool to keep focus on the Vision as time elapses and there is turnover in elected officials, appointed officials, and staff who have been involved in the planning process, and will help cultivate new champions for the Vision and its recommendations as they evolve.

Examples of potential indicators or benchmarks to track may include:

- Walkability score (see www.walkscore.com or www.walkableamerica.org for additional information)
- Miles of bicycle lane added
- Number of transit stops added or enhanced
- Number of new vehicle and bicycle parking spaces added
- Number of new development, redevelopment or adaptive reuse applications submitted
- New housing units built

6.5 CONCLUSION

This Vision centered on a community-driven process to explore how best to guide future development and urban form in the Virginia Drive corridor. The Vision articulated in this report focuses primarily on how the study area should evolve to best reflect the community's character and sense of place. The planning effort addresses key strategies to strengthen the community's unique assets, position the area for long-tern sustainability, and reinforce the values expressed through an extensive dialogue with citizens and local business owners. The Vision clearly focuses on the importance of the neighborhoods and their prime downtown location as essential elements of its identity and long-term economic vitality; but that must be complemented in the future by careful planning to maintain the character and historic context of the area.

This is a long-term Vision that will occur through a combination of public actions and private, or market-responsive, initiatives. However, there are numerous elements of the Vision that can be accomplished in the near-term that will serve as catalysts for desired private investments. Some of these actions entail policy and Code revisions, while others involve capital projects like streetscaping, wayfinding and public realm modifications. This is the community's vision, intended to guide discussion of the City's staff, boards and Commission to address issues related to change in the built environment, economic growth, neighborhood stability and lasting enjoyment of the area's setting. Every few years, the City should revisit the Vision and reflect on how well it is accomplishing it, and whether adjustments are needed. This continuing process of forward thinking and self-aware reflection is critical to keeping the Vision alive as a guiding influence of positive change in the community.

APPENDICES

A. Transportation: Origin/destination study summary
B. Transportation: Turning movement count summary
C. Transportation: Collected data counts
D. Transportation: Annual average daily traffic count data
E. Transportation: Trip generation summaries
F. Transportation: Synchro L.O.S. summaries
G. Market Analysis
H. Neighborhood Parking Analysis
I. Public Participation