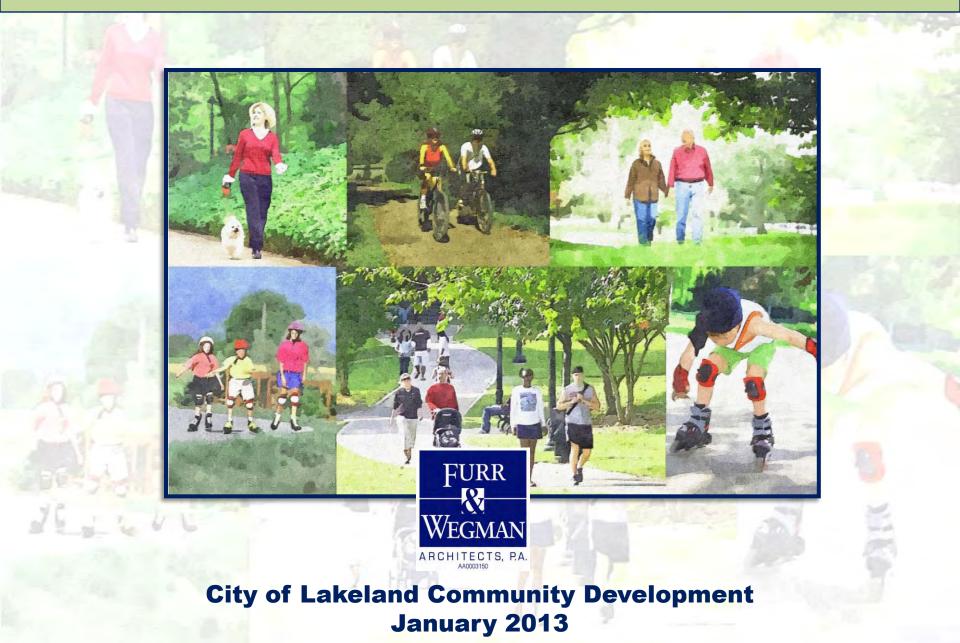
THREE PARKS TRAIL MASTER PLAN







To ensure adequate recreation and open space opportunities for all sectors of the community.

To enhance the quality of life Lakeland offers through a trail system that connects existing parks, recreation facilities, and open spaces.

CONNECTIVITY

Three Parks Trail links an existing path, bike and sidewalk systems in, around and connecting south-central city park facilities directly to the Lake to Lake System.

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1. OVERVIEW

Page 1

The City of Lakeland Comprehensive Plan includes a transportation element. Within that document are a number of transportation related objectives and specific projects to enhance the quality of the built environment in the city. The Lake to Lake Bikeway and Citywide Pathways System (including Parks Connectivity Projects) are the significant networks contained in the plan. Much of that System is in place with existing improvements around the city's lakes that in many ways define Lakeland as a unique place with lake shores available for recreation, walking and biking. In addition to recreation, the City's pathway network serves an important transportation function: connecting neighborhoods, activity centers, and transit routes.

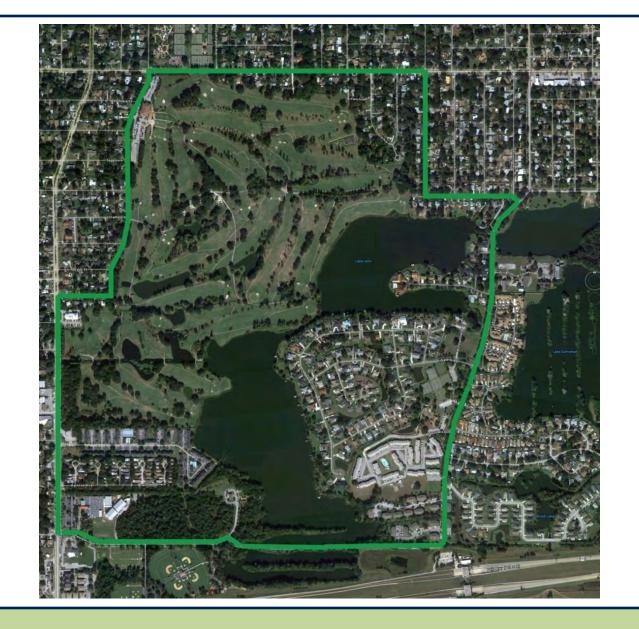
The southern extension of the system includes the Three Parks Trail (Curtis Peterson Park, Woodlake Park and Common Ground Park) which builds on the existing path, bike and sidewalk systems in, around and connecting south central city park facilities (off road recreation path through Peterson Park, sidewalks on Cleveland Heights Boulevard, Edgewood Drive and New Jersey Road) and has the potential to connect to the Lake to Lake System. The scope of this report is to identify the opportunities, issues, design elements, and cost to develop an urban trail so that capital improvements can be identified and coordinated for future city budgets and funding grants.





1. Three Parks Trail Location Map



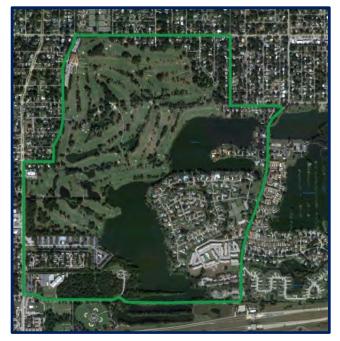


Page 3

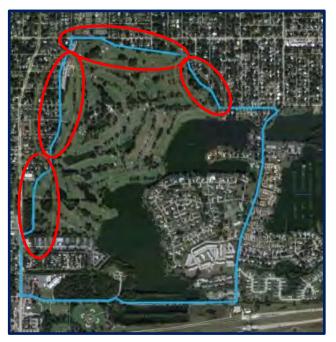
1. Existing Three Parks Trail



- Field Survey
- Alignment
- Improvements



Existing



Proposed improvements to the trail (as indicated by the red circles & defined in this Master Plan)



Page 4

2. OPPORTUNITIES



Page 5

3. SEGMENTS OF THREE PARKS TRAIL



3. SEGMENT 1 Curtis Peterson Park to Lakeside Apartments



Page 6



3. SEGMENT 1: East bound from Curtis Peterson Park





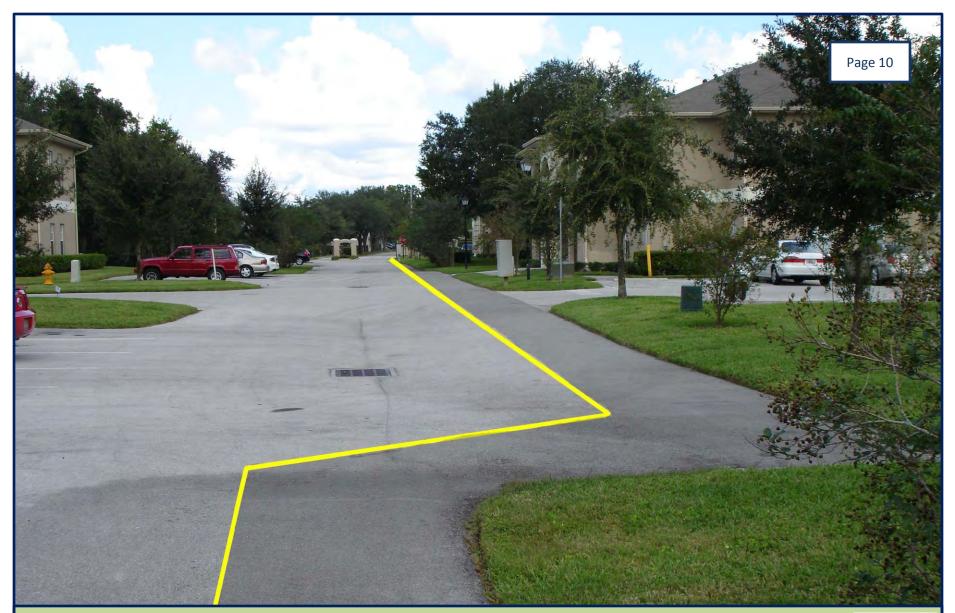
3. SEGMENT 1: This section of the existing trail provides a scenic experience for the user





3. SEGMENT 1: Existing trail at south entry to Lakeside Apartments





3. SEGMENT 1: Proposed striping & signage to designate trail through Lakeside parking lot





3. SEGMENT 1:

City will need agreement with Lakeside owners on how to continue trail through entryway and signage to mark trail





3. **SEGMENT 2** Lakeside Apartments north on New Jersey to Glendale



Page 12



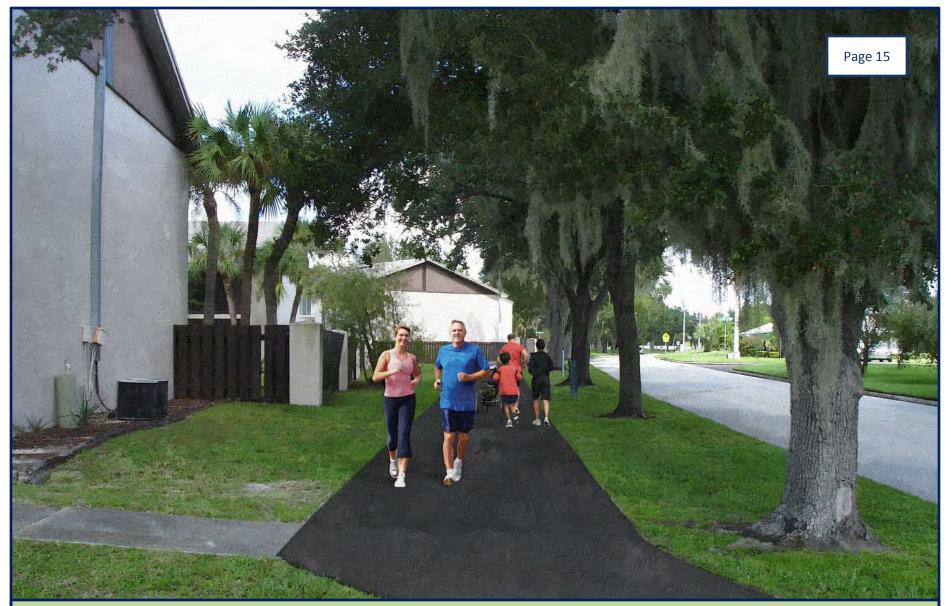
3. SEGMENT 2: Existing - Cross to west side of New Jersey Road from Lakeside Apartments





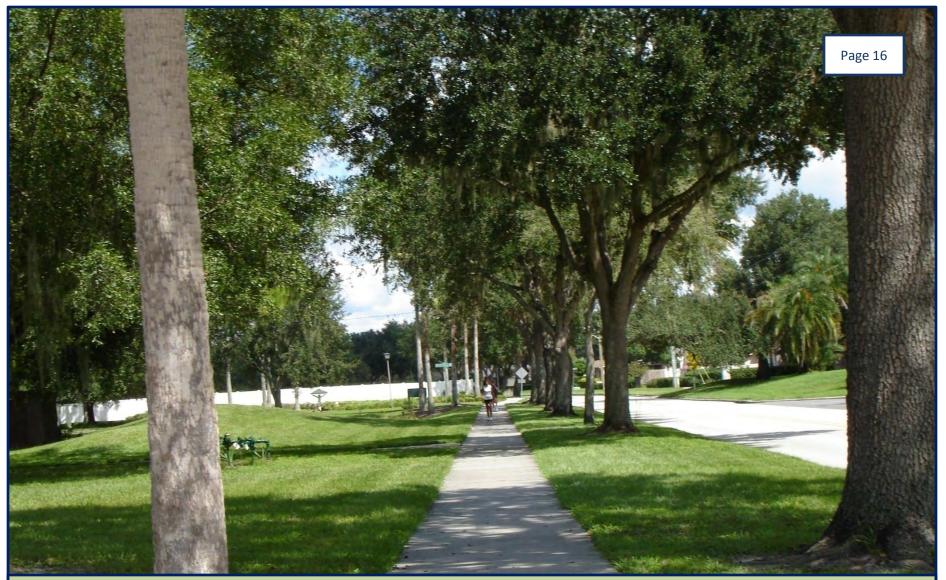
3. SEGMENT 2: Existing – West side of New Jersey Road Take advantage of large shade trees





3. SEGMENT 2: Proposed – Widen trail 10' – 12' asphalt paving & signage

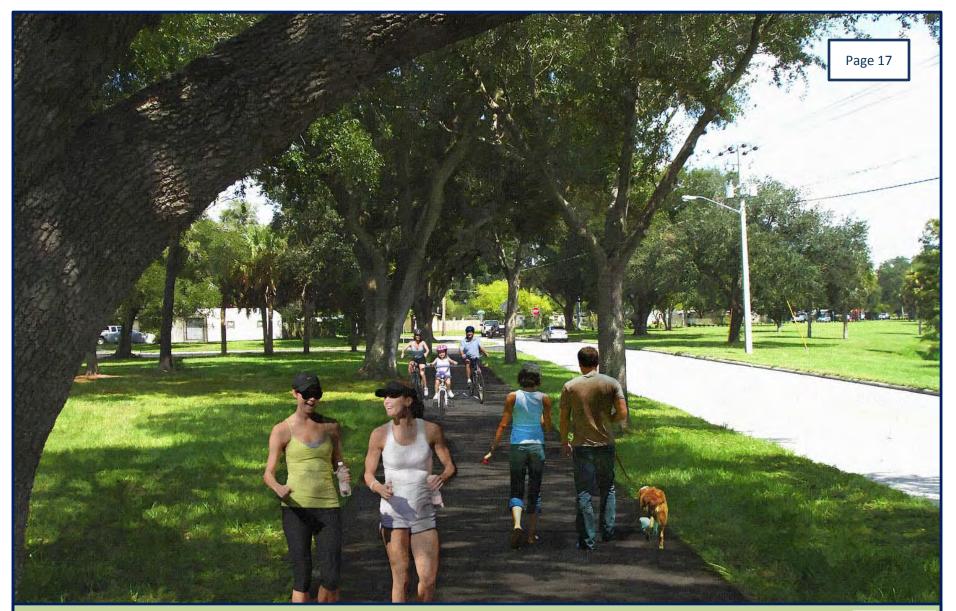




3. SEGMENT 2:

Existing concrete sidewalk at Wood Lake Park, taking advantage of existing major shade trees 2007 Traffic Count – 4,150 – New Jersey Road





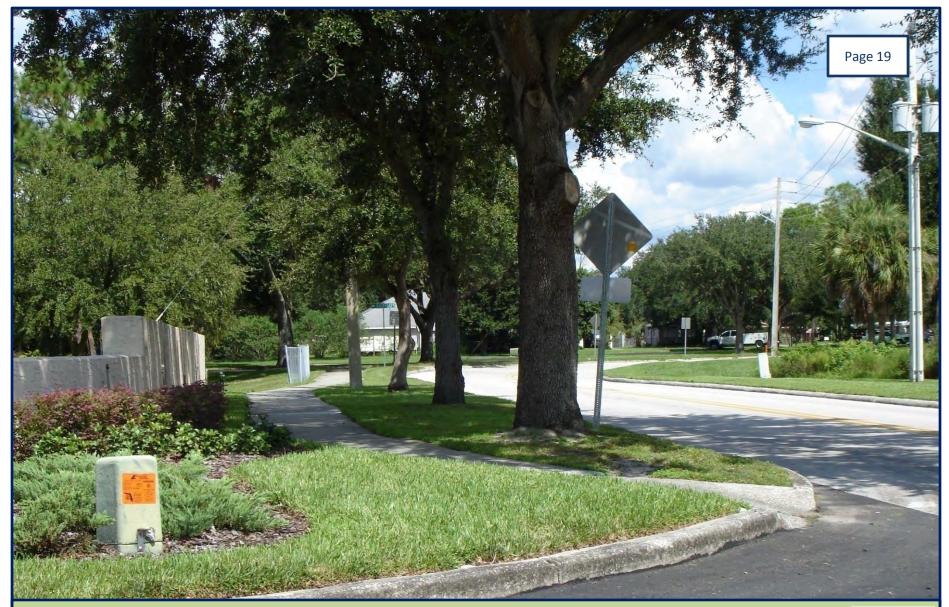
SEGMENT 2: Proposed 10' – 12' trail replacing sidewalk at Wood Lake Park, taking advantage of existing major shade trees





3. SEGMENT 2: Where possible, separate trail from overhead utility lines





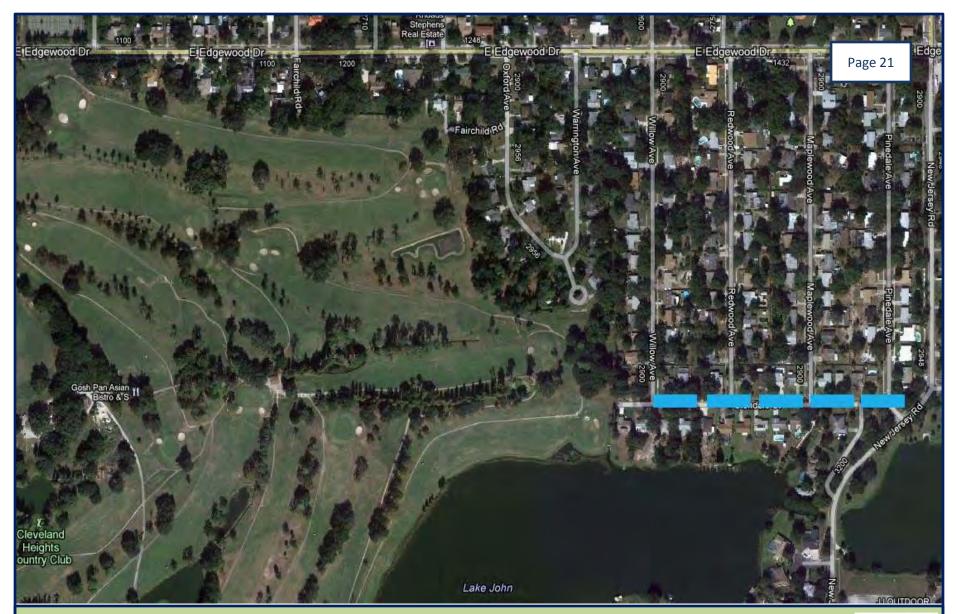
3. SEGMENT 2: Designate road crossing at Shorewood Place





3. SEGMENT 2: Existing - Looking north on New Jersey Avenue to Glendale





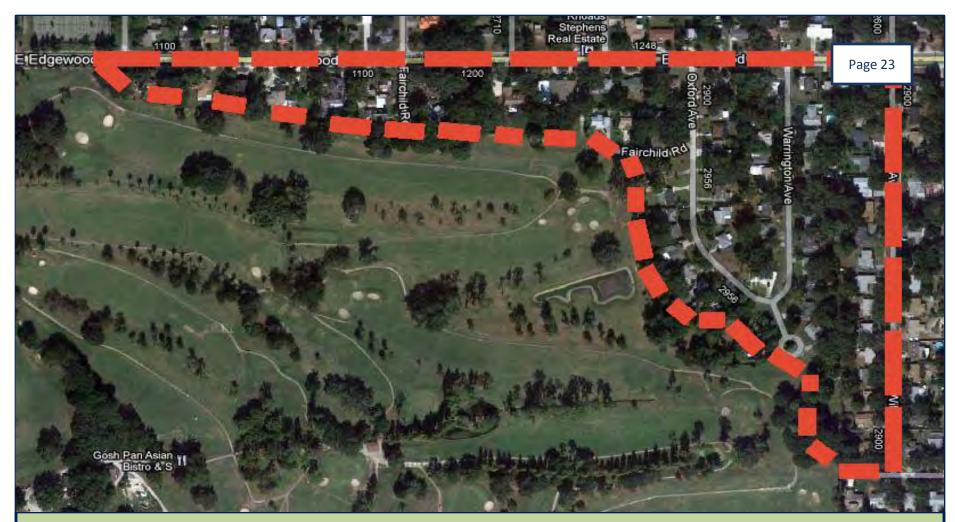
3. SEGMENT 2 – Northwest terminus Glendale to Willow Avenue





3. SEGMENT 2: Looking west on Glendale Street from Pinedale Avenue





3. SEGMENT 3

Opportunity to move this segment off Edgewood Drive and take the trail through the northeast corner of the Cleveland Heights Golf Course. This proposed route eliminates the conflict of approximately 33 intersections/driveways and is the preferred alternative for this segment.





3. SEGMENT 3: Existing east golf course property has available land for the trail





3. SEGMENT 3:

Proposed trail can meander through trees. New black vinyl chain-link fencing would separate trail from golf course





3. SEGMENT 3: Existing north edge of golf course





3. SEGMENT 3:

Proposed 10' – 12' wide asphalt trail along north edge of golf course with new black vinyl chain-link fencing would eliminate traffic conflicts on Edgewood Drive





3. SEGMENT 3: Existing – Golf course offers many scenic views





3. SEGMENT 3: Proposed golf course trail with higher fencing where necessary





3. SEGMENT 3:

Existing east view, Edgewood Dr. towards New Jersey Avenue eliminate conflicts w/existing driveways & road crossings by moving this portion of the trail to the golf course 2012 Traffic Count – 18,243 – Edgewood Drive (Polk TPO)





3. SEGMENT 4 Edgewood Drive to Buckingham Avenue





3. SEGMENT 4: Existing – View looking east on Edgewood Dr.





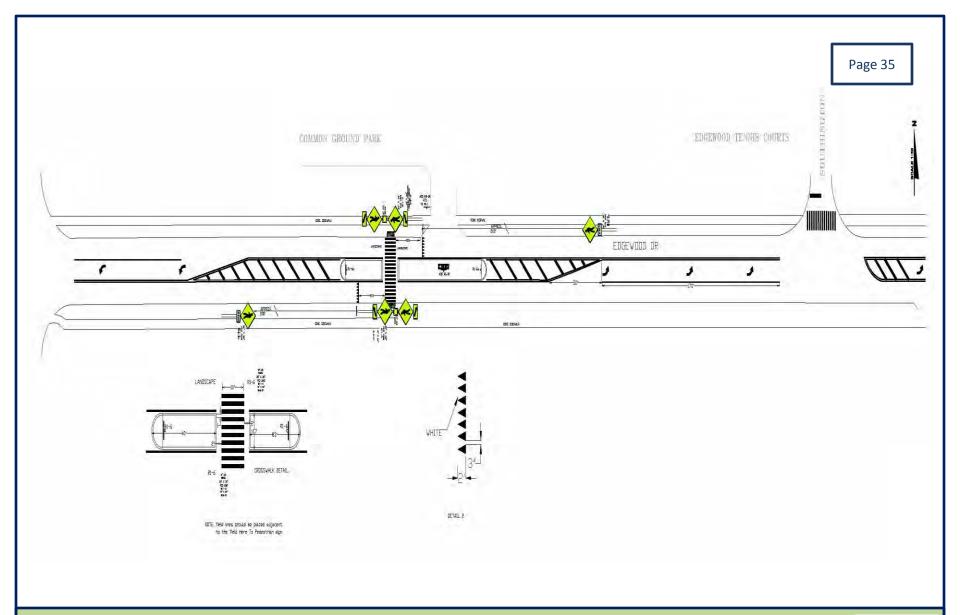
 SEGMENT 4: Proposed – 10' – 12' wide asphalt trail – move fencing to other side of existing trees





3. SEGMENT 4: Proposed path from golf course at intersection of Southington to Edgewood Dr.

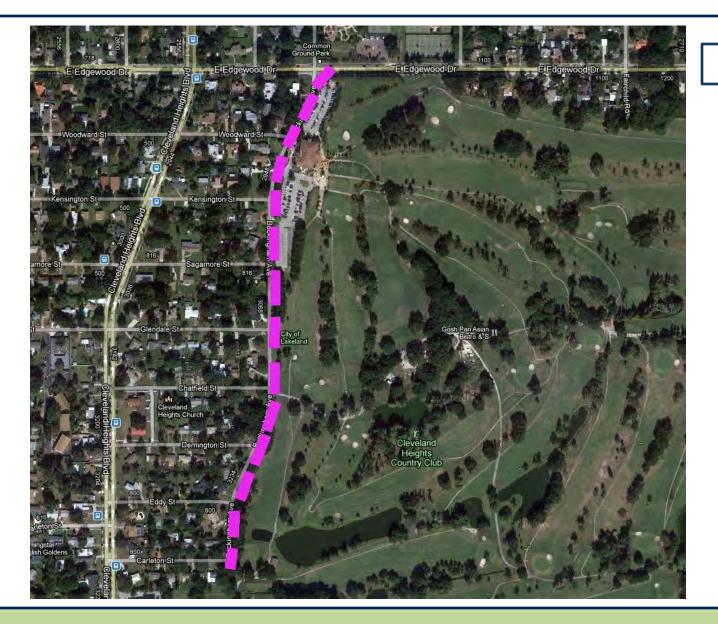




3. SEGMENT 4:

Concept crossing at Edgewood Drive - Mid-block to Beerman Tennis Complex & Common Ground Park

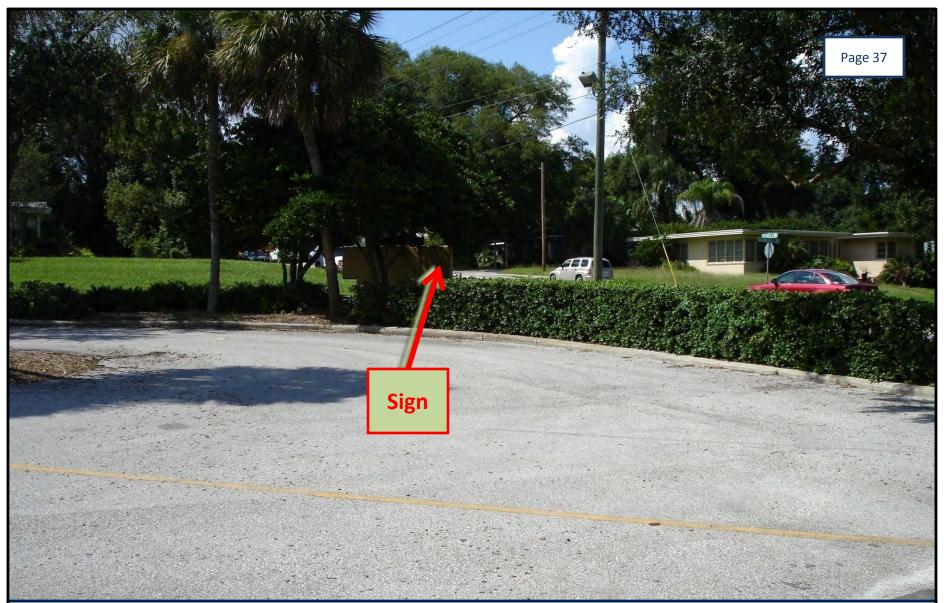




Page 36

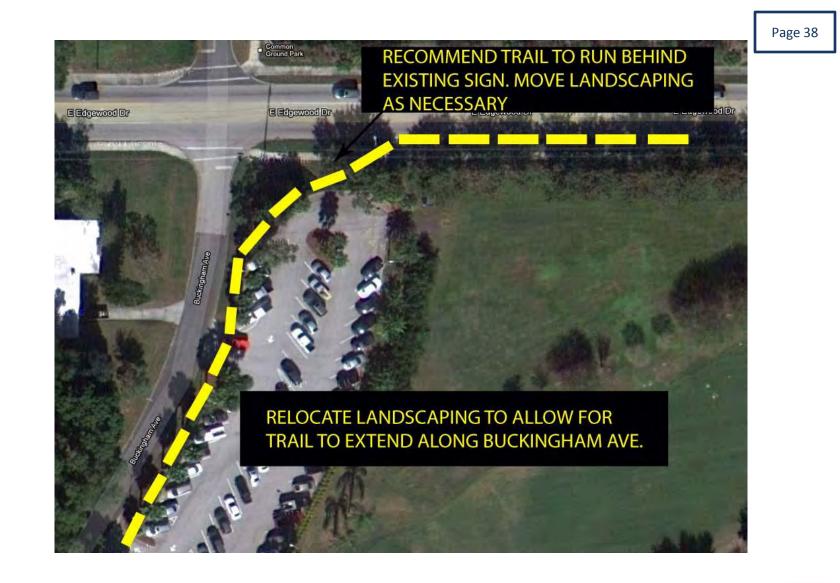
Buckingham south from Edgewood Drive to Carleton Street **3. SEGMENT 5**





3. SEGMENT 5: Recommend trail to be located behind Cleveland Heights Golf Club sign







3. SEGMENT 5



3. SEGMENT 5: Existing sidewalk at the west side of Cleveland Heights Clubhouse





3. SEGMENT 5: Existing - Buckingham Avenue Recommend fencing be moved to other side of trees





3. SEGMENT 5:

Proposed new trail on east side of Buckingham Avenue Replace existing fencing with black vinyl chain-link





3. SEGMENT 5: Existing - South end of Buckingham Avenue at Carleton St.

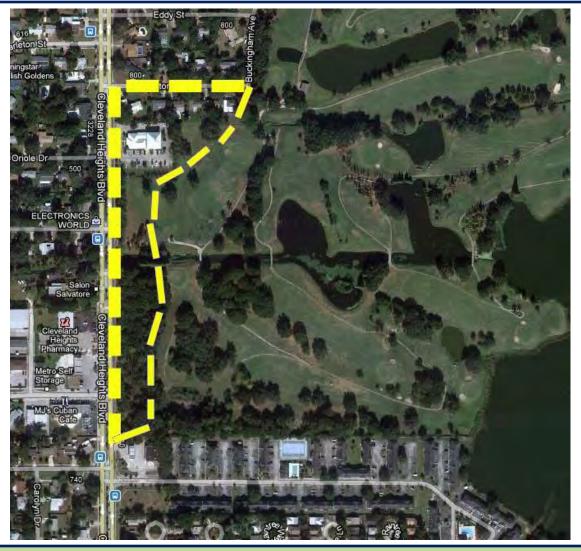




3. SEGMENT 5:

City will need to acquire this vacant lot, obtain easement or re-work the golf course in order to extend the trail through the west side of golf course



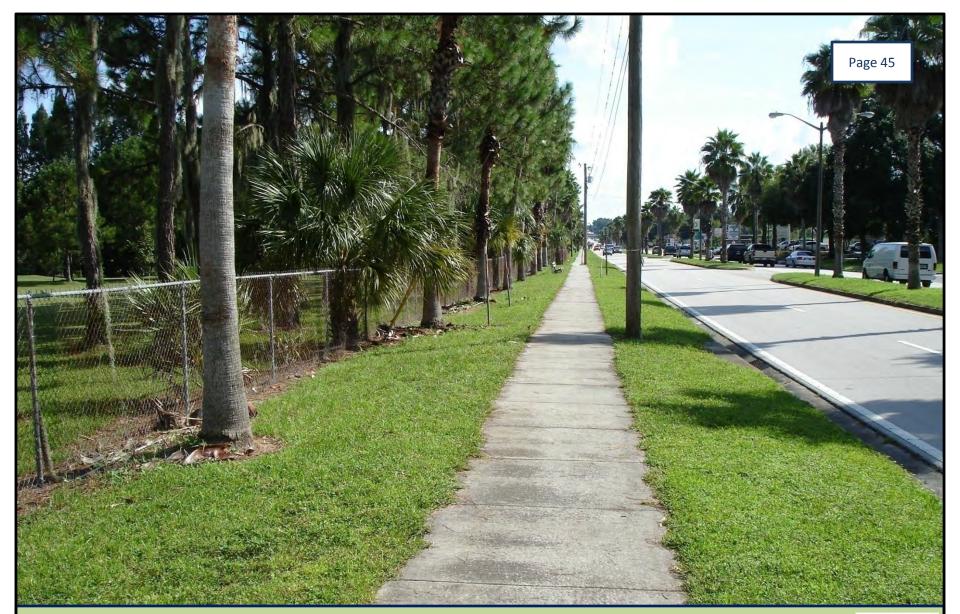


Page 44

3. SEGMENT

Buckingham at Carleton Street to Cleveland Heights Blvd. at the intersection of Robin Road. An opportunity to extend the trail through the west edge of the golf course away from Cleveland Heights Blvd.

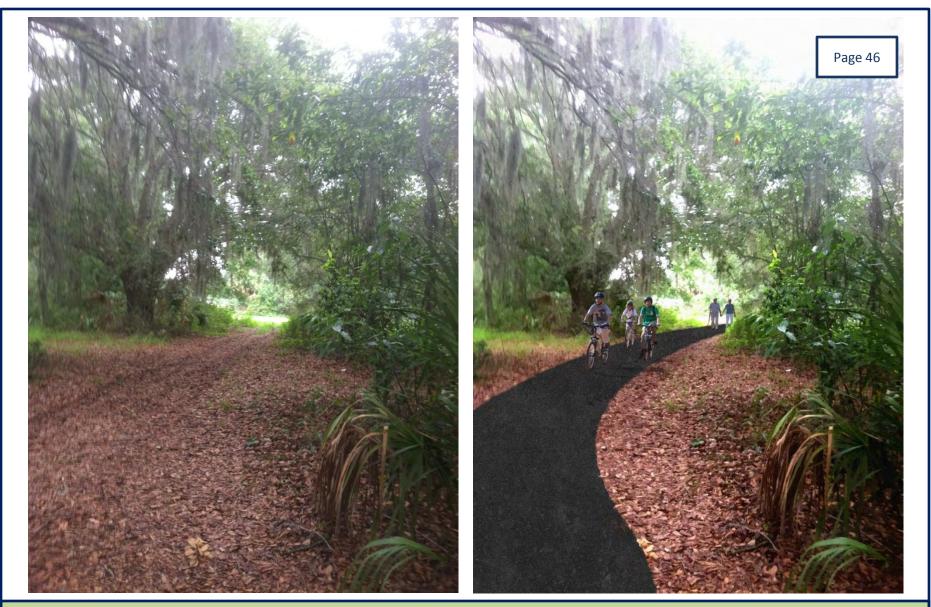




3. SEGMENT 6:

Cleveland Heights at west side of golf course 2012 Traffic Count – 14,997 (Polk TPO)





3. SEGMENT 6: Existing & proposed 10' – 12' wide asphalt trail





Page 47

3. SEGMENT 6:

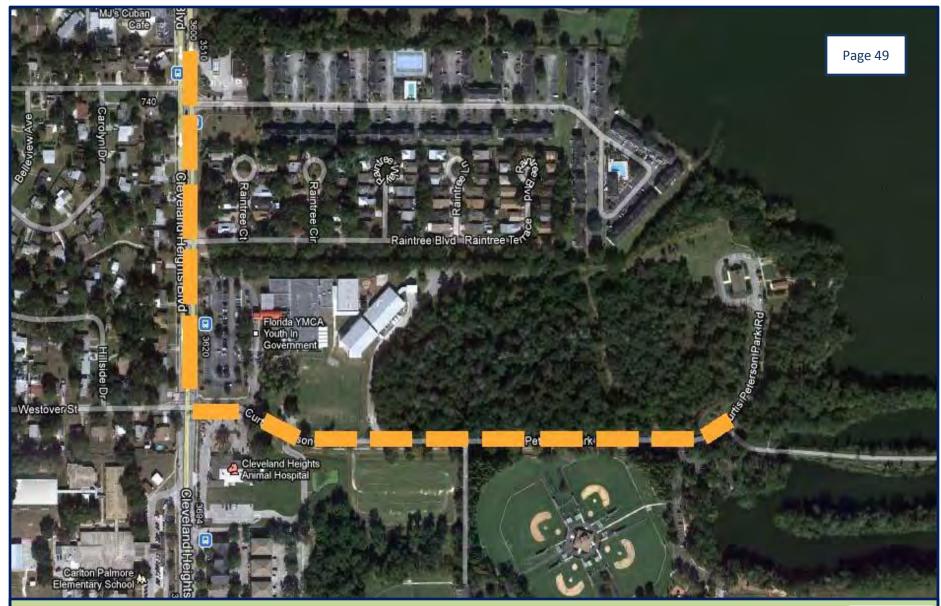
Proposed trail onto golf course off Cleveland Heights Blvd. at intersection of Robin Road





3. SEGMENT 6: Existing crossing needs signage & crosswalk for trail





3. SEGMENT 7 From Cleveland Heights Blvd. to Curtis Peterson Park





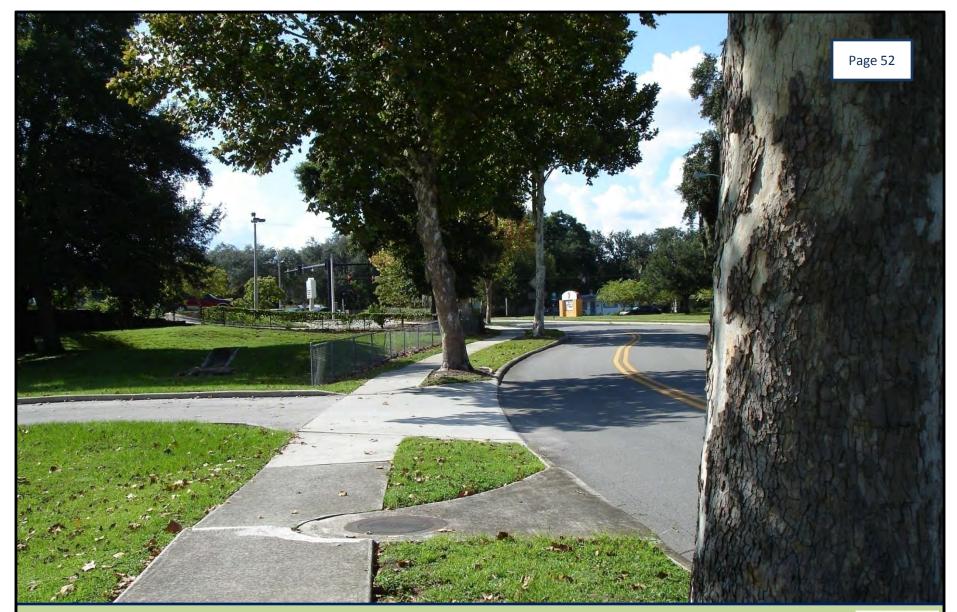
3. SEGMENT 7: Existing sidewalk on Cleveland Heights at YMCA





3. SEGMENT 7: Turning off Cleveland Heights Blvd. to Curtis Peterson Park Rd.

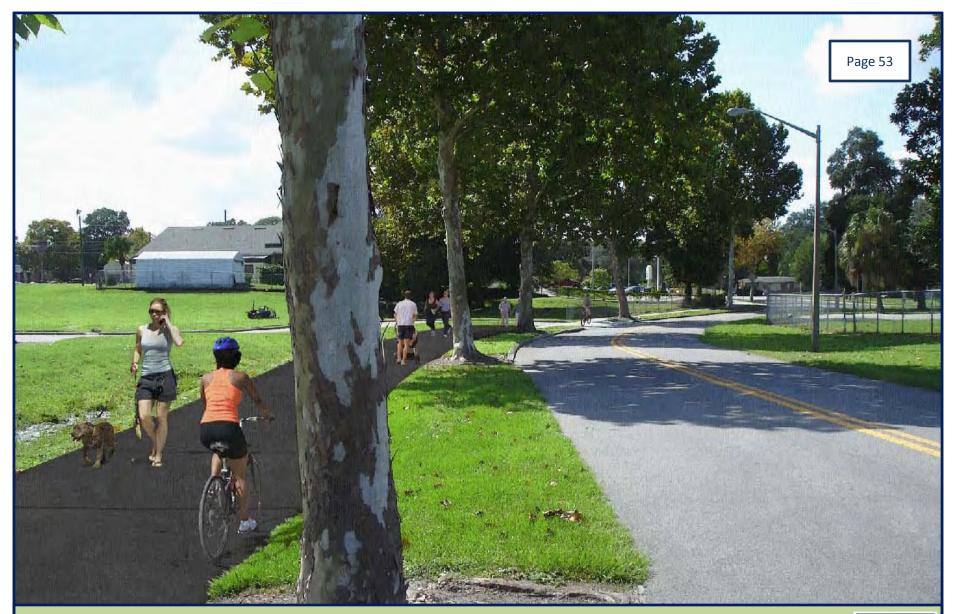




3. SEGMENT 7:

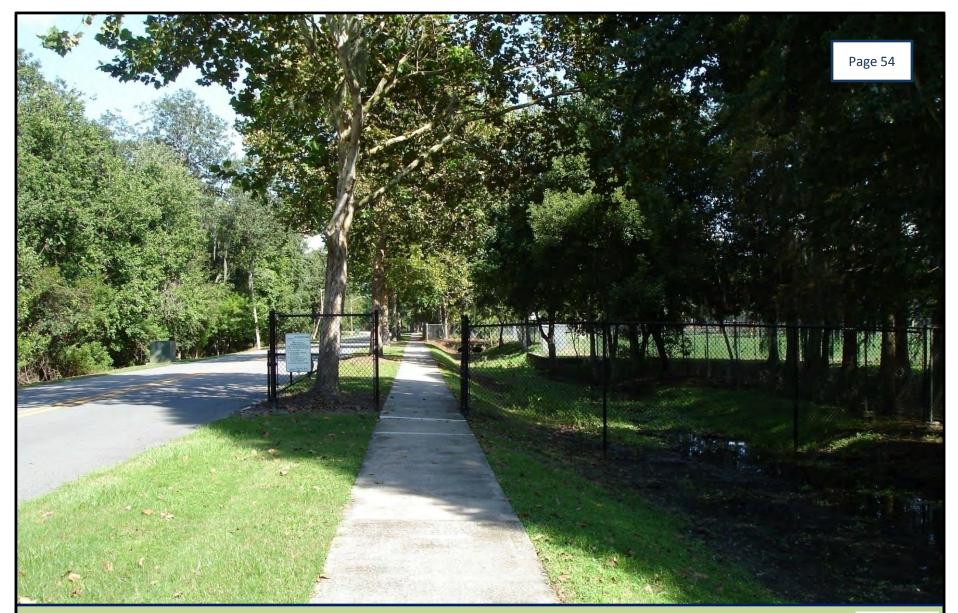
Existing 6' wide concrete sidewalk on south side of Curtis Peterson Park Road





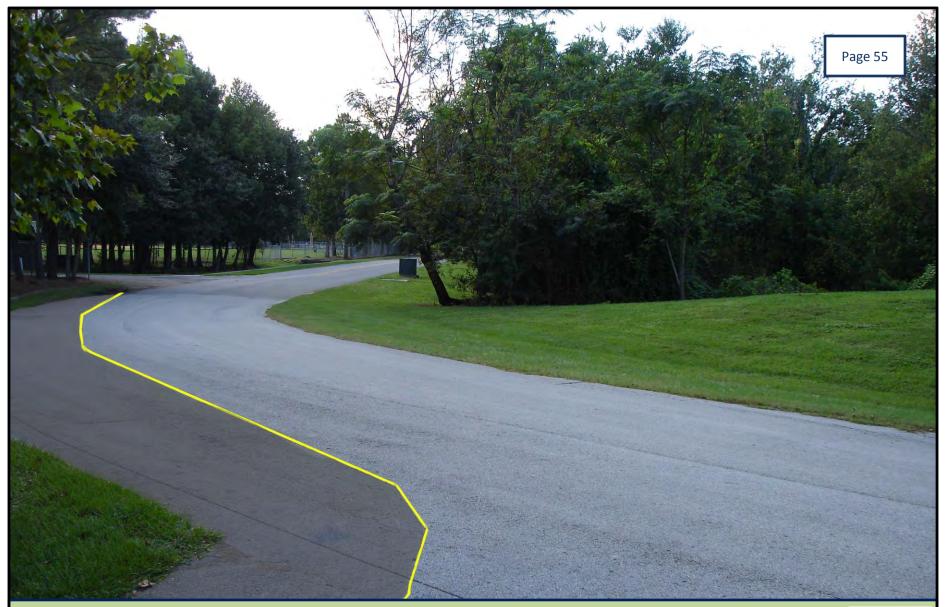
3. SEGMENT 7: Proposed 8' – 10' wide asphalt trail





3. SEGMENT 7: Existing entry to Curtis Peterson Park





3. SEGMENT 7: Proposed trail marked with striping on south side of road





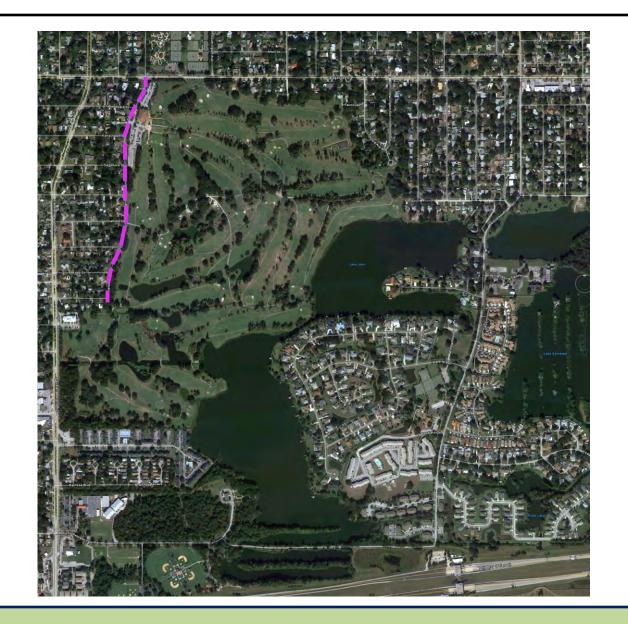
3. SEGMENT 7: Final segment of the Three Parks Trail (3.6 miles)





EXAMPLE OF WAYMARKER





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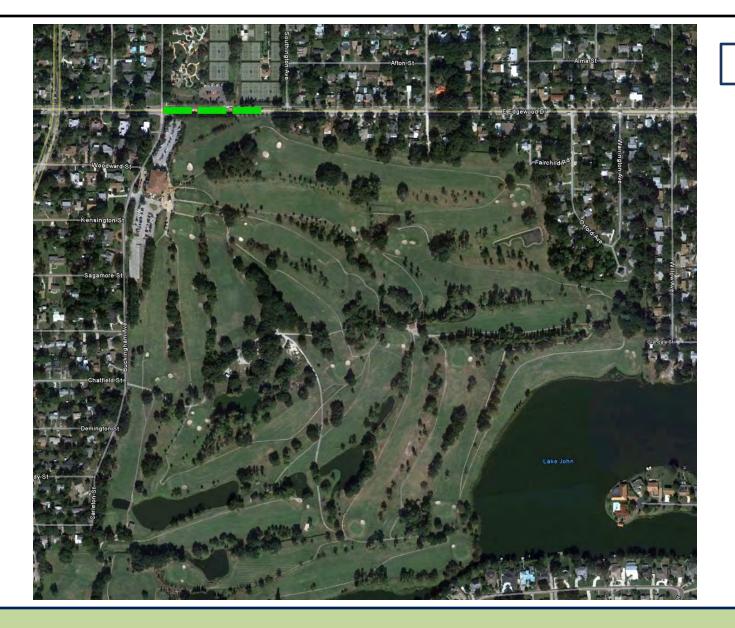
10 Foot Wide Paved Trail Trail segmment from Edgewood Drive south on Buckingham Avenue to Carleton Street Length of paved trail 2,680 linear feet

Cost for 10' - 0" wide paved trail 2,680 x \$21.00/Ft. \$ 56,280.00 **Construction Layout** 0.96 \$ Ft. \$ Strip topsoil and grade 1.20 Ft. \$ Compacted sub-grade 1.68 Ft. 6" Lime rock base (LBR) \$ 11.10 Ft. Recycled 1.25" S-1 asphalt \$ 10.26 Ft. 56,280.00 \$ Utilities (allowance for new inlets) \$ 12,000.00 Black Vinyl Chain Link Fencing - 2,000 linear feet as follows: 6' - 0" high @ \$20.00/Ft. \$ 40,000.00 Signage \$ 6,500.00 Gates: \$900.00/Pair - One (1) pair required \$ 900.00 Sod - 21,440 SF x .36/SF \$ 7,718.00 Sub-Total \$ 123,398.00 Contractor's general conditions and insurance @ 9% \$ 11,106.00 Contingency @ 5% \$ 6,725.00 Fee @ 6% Ś 8,574.00 Total \$ 26,405.00 **Total Estimated Cost** \$ 149,803.00

4. IMPROVEMENT / COST ESTIMATE – SEGMENT 5



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4. IMPROVEMENT / COST ESTIMATE – SEGMENT 4 Edgewood Drive

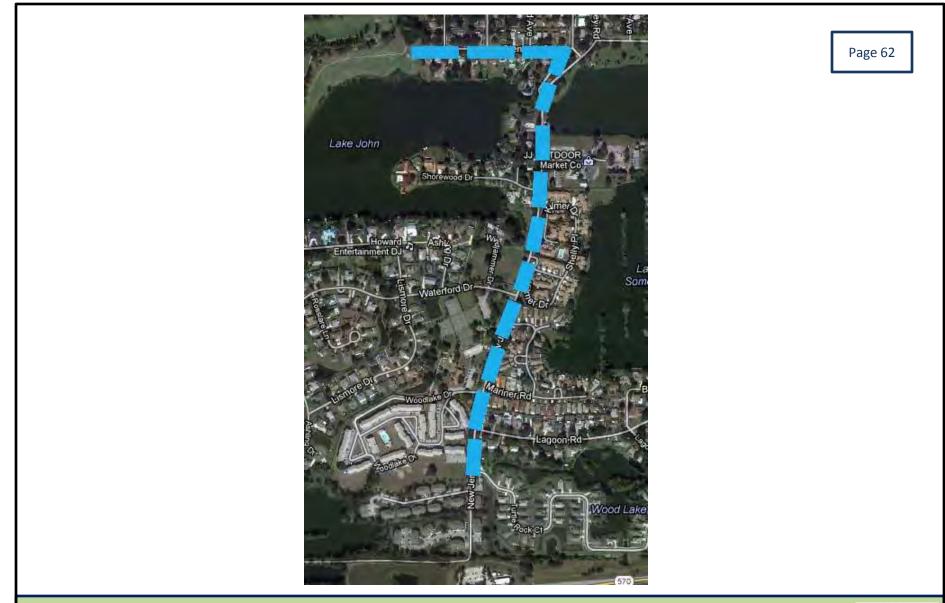


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Edgewood Drive Trail Improvements 12' - 0" Paved Trail

New paved 12' - 0" wide trail - 675 linear feet @ \$25.20/LF	\$ 17,010.00
New 4' - 0" high fence - 700 linear feet @\$16.00/Ft	\$ 11,200.00
Mid-block crosswalk (includes milling of existing road, signage, curbing and traffic control)	\$ 67,500.00
Sod and landscaping (allowance)	\$ 7,800.00
Sub-Total	\$ 103,510.00
Contractor's overhead and profit @ 15%	\$ 15,526.50
Contingency @ 5% (\$119,036.50)	\$ 5,952.00
Total Estimated Cost	\$ 124,988.50





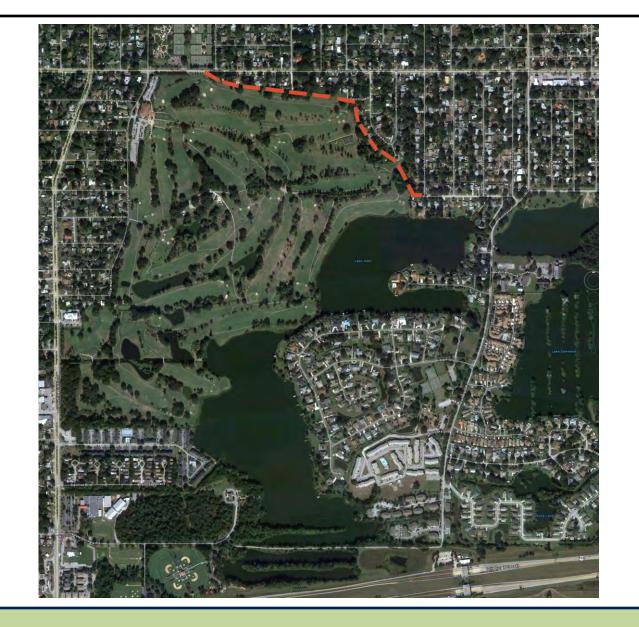


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10 Foot Wide Paved Trail Replace existing sidewalks along New Jersey Avenue & Glendale Street Length of paved trail 4,224 linear feet

Cost to demo existing sidewalk	\$ 12,672.00	
Cost for 10'-0" wide paved trail 4,224 x \$21.00/Ft.	\$	
Construction Layout	\$ 0.80	Ft.
Strip topsoil and grade	\$ 1.00	Ft.
Compacted sub-grade	\$ 1.40	Ft.
6" Lime rock base (LBR)	\$ 9.25	Ft.
Recycled 1.25" S-1 asphalt	\$ 8.55	Ft.
	\$ 21.00	Ft.
Sod - 16,896 SF x .36/SF	\$ 6,083.00	
Sub-Total for 10'-0" wide trail	\$ 107,459.00	
Allowance - ADA detectable warning surfaces @ road crossings (16 total)	\$ \$ 8,000.00	
Total Estimate with allowance	\$ 115,459.00	
Contractor's general conditions and insurance @ 9%	\$ 10,391.00	
Contingency @ 5%	\$ 6,293.00	
Fee @ 6%	\$ 7,929.00	
Total	\$ 140,072.00	





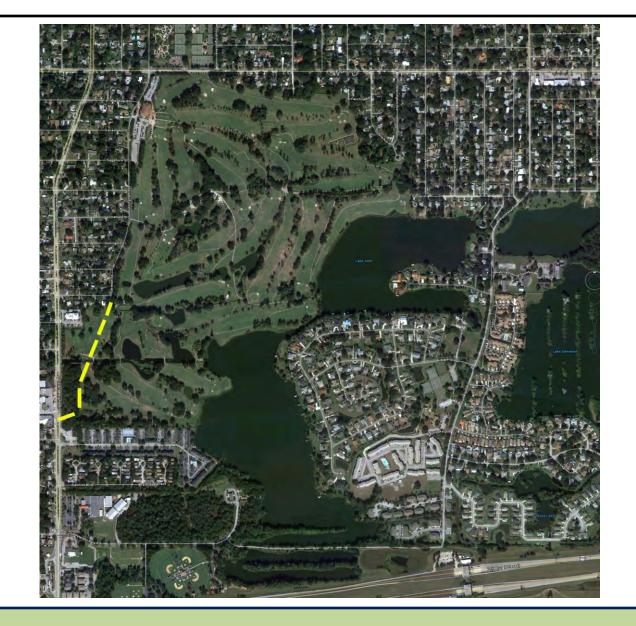
Page 64



12 Foot Wide Paved Trail Northeast edge of the Cleveland Heights Golf Course Length of paved trail 3,100 linear feet

\$	70 400 00	
Ŧ	78,120.00	
\$	0.96	Ft.
\$	1.20	Ft.
\$	1.68	Ft.
\$	11.10	Ft.
\$	10.26	Ft.
\$	78,120.00	
\$	5,600.00	
\$	17,000.00	
\$	32,800.00	
\$	1,800.00	
\$	8,928.00	
\$	144,248.00	
\$	12,982.00	
\$	7,862.00	
\$	9,905.00	
	174,997.00	
	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ 1.20 \$ 1.68 \$ 11.10 \$ 10.26 \$ 78,120.00 \$ 5,600.00 \$ 5,600.00 \$ 17,000.00 \$ 32,800.00 \$ 1,800.00 \$ 12,982.00 \$ 1,862.00





Page 66



12 Foot Wide Paved Trail Western edge of the Cleveland Heights Golf Course from Buckingham to Cleveland Heights Boulevard Length of paved trail 1,584 linear feet

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Cost for 12'- 0" wide paved trail 1,584 x \$25.20/Ft.	\$ 39,917.00	
Construction Layout	\$ 0.96	Ft.
Strip topsoil and grade	\$ 1.20	Ft.
Compacted sub-grade	\$ 1.68	Ft.
6" Lime rock base (LBR)	\$ 11.10	Ft.
Recycled 1.25" S-1 asphalt	\$ 10.26	Ft.
	\$ 39,942.20	Ft.
Bridge (covert)	\$ 20,000.00	
Black Vinyl Chain Link Fenching - 1,700 linear feet as follows:		
1,700 feet 4'-0" high @ \$16.00/Ft.	\$ 27,200.00	
Gates: \$900.00/Pair - Two (2) pair required	\$ 1,800.00	
Sod - 6,400 SF x .36/SF	\$ 2,304.00	
Sub-Total for 12'- 0" wide trail	\$ 91,221.00	
Contractor's general conditions and insurance @ 9%	\$ 8,210.00	
Contingency @ 5%	\$ 4,972.00	
Fee @ 6%	\$ 6,264.00	
Total	\$ 110,667.00	
Estimated cost to purchase vacant lot on Carleton Street	\$ 40,000.00	_
Total Estimated Cost	\$ 150,667.00	

4. IMPROVEMENT / COST ESTIMATE - SEGMENT 6



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Signage, Benches & Trash Receptacles

Total Estimated Cost	\$ 37,400.00
Signage (lump sum)	\$ 25,000.00
12 trash recepacles @ \$500	\$ 6,000.00
8 benches @ \$800	\$ 6,400.00



4. IMPROVEMENT / COST ESTIMATE

Crosswalks & Striping

\$ 16,000.00
\$ 24,000.00
\$ 40,000.00
\$ \$



4. IMPROVEMENT / COST ESTIMATE

5. APPENDIX

- A Recreational Aspects
- B Surfaces
- C Trail Width
- D Trail Amenities
- E Road Crossings
- F Safety and Security
- G LPD Recommendations / Meeting Minutes with Lakeland Police Department
- H Operations and Maintenance
- I Sample Maintenance Chart





5. APPENDIX A RECREATIONAL ASPECTS

- 1. The trail is consistent with the vision and goals for Lakeland
 - Healthy lifestyle
 - Revitalization of neighborhoods
 - Quality of life
 - Support economic development
- 2. The trail is designed to be passive, non-motorized
 - Walkers
 - Runners
 - Recreational biking
 - Rollerblading/scooters/skateboards
- 3. The Master Plan provides a framework using an existing pathway
 - Develop an urban trail that provides for an enhanced scenic experience
 - Safe and secure trail separated from vehicular traffic
 - Adds to the trail and bike systems in the Lakeland community
 - · Helps to develop partnerships to build community support for trails
 - Can be used to pursue funding opportunities
- 4. The privacy and safety of adjacent property owners is protected by the hours of operation and fencing
- 5. Connects to existing Parks and transportation systems
- 6. Eliminates conflict with trails being located next to high traffic roadway.
 - Fewer existing driveways to cross on less congested roadways
 - Road crossings
 - Limited right-of-way on existing roadway
- 7. Identifies conflicts with trail next to high traffic roadways
 - Resolve location. Offer alternates of trail where it is close to congested roadways and there is limited right-of-way



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5. APPENDIX B SURFACES

Asphalt paving is the preferred surface at grade for trails (see diagram 1).

- It is more affordable than concrete.
- It is easier for elderly to walk on; they are less likely to fall (they don't lift their feet as high, and often trip on sections on concrete walks that are uneven).
- It is easier to ride a bicycle and/or roller blade or push a baby stroller on asphalt.
- Asphalt cushions the impact to a runner's body better than concrete.

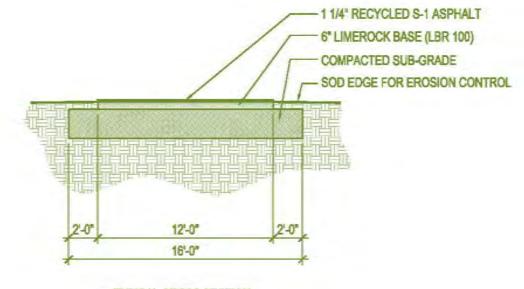
Unpaved trails in an urban environment are not recommended because of maintenance.

Where grade installation of asphalt is not feasible (low marsh or wet areas) then an elevated boardwalk is recommended (see diagram 2).



5. APPENDIX B Diagram 1 Asphalt Paving Section

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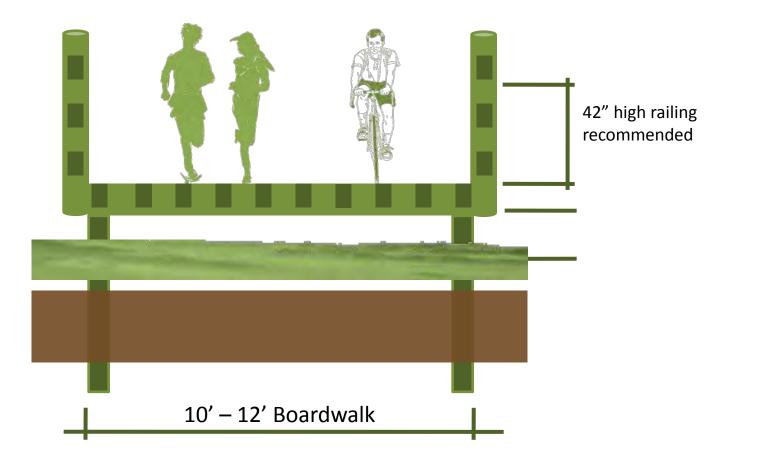


TYPICAL CROSS SECTION

(Maximum Cross Slope 2%)



5. APPENDIX B Diagram 2 Boardwalk Section



Boardwalk and footing design will vary based on site-specific conditions. Use when "at grade" installation is not feasible.



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5. APPENDIX C TRAIL WIDTH

The preferred width of a two-way trail is 12'-0" (see diagram 3).

8'-0" would be the minimum width for the trail.

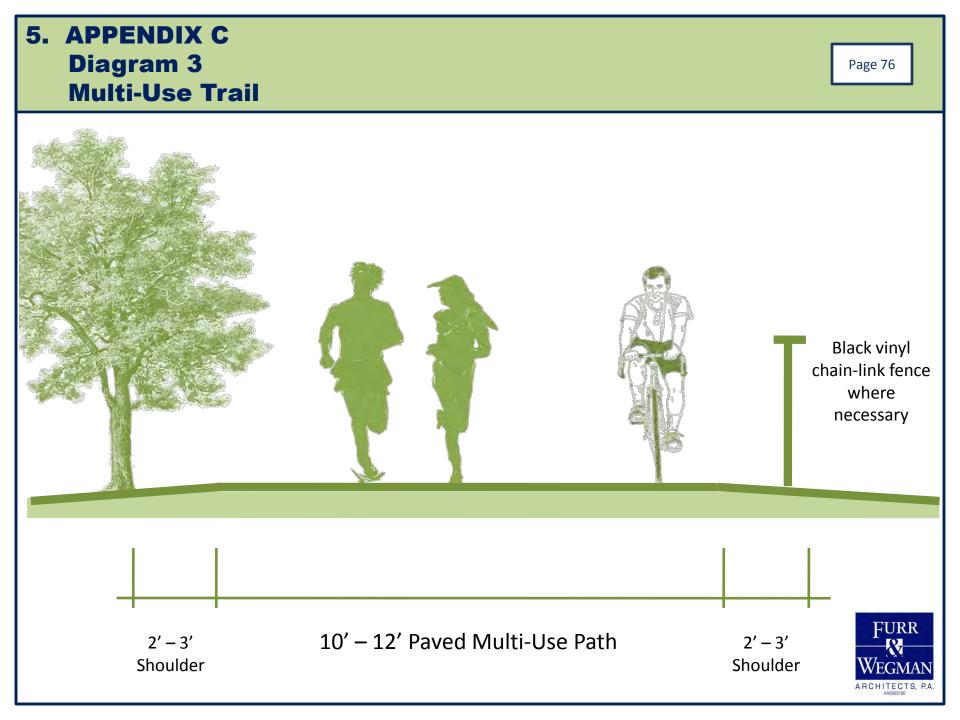
Some areas of the trail have existing 5' to 6' wide sidewalks which would need to be widened to 8' to 10' when existing sidewalks are replaced with asphalt paving.

The maximum cross slope should not exceed 2%.









5. APPENDIX D TRAIL AMENITIES

- 1. Public Restrooms and Water Fountains are available on the trail at Curtis Peterson Park, Woodlake Park, Cleveland Heights Golf Course, and Common Ground Park.
- 2. Parking for cars and bicycle racks should be available at the above named parks.
- 3. Durable Benches and Trash Receptacles are recommended every ½ mile (800 meters).
- 4. Maps and Signage
 - · Comprehensive signage system using kiosks and angled tablets
 - Provides information and orientation to the trail user
 - Include: No littering, exercise safety and be respectful of others using the trail
 - Mileage markers should be every ¼ mile (400 meters)
 - · Interperative signs shall provide information on local ecology, environmental concerns and other educational information
- 5. Landscaping features will enhance the visual environment and improve the trail user experience. Trees will provide shade from the sun.
- 6. Street crossings need to be designed with good visibility.
- 7. Vehicular Traffic needs to be separated from the trail user as much as possible.
- 8. Using portions of the golf course provides for an enhanced scenic trail experience.
- 9. Maintain good site lines for safety and visibility.
- 10. Design trail for easy upkeep to provide proper maintenance.
- 11. Trail shall connect to land and park uses.



5. APPENDIX E ROAD CROSSINGS (AT GRADE)

- Provide well marked crossings with signage where trail crosses roads.
- Type of crossing will vary due to road use (traffic count) and speed limits.
- Maintain good visibility, line of site 250 feet for 35 MPH.
- Must meet applicable accessibility, traffic, and safety standards.
- Provide four way stops (including trail) at difficult intersections, as warrented.



5. APPENDIX F SAFETY and SECURITY

- Daylight hours ONLY, at specific locations, dawn to dusk. with gates to close portions of the trail where there is limited visibility. Recommend Parks & Recreation Department personnel assume this responsibility.
- Utilize crime prevention in design.
- Conduct safety audit with Law Enforcement and Parks and Recreation.
- Listen to the community.
- Respect adjacent property owners.
- Mark all road crossings with signage and painted lines.
- Good maintenance program.
- Control vegetation; keep shrubs below 3' high and tree branches above 8'-0".
- Routinely check parts of trail not visible from streets.
- See Appendix G; Meeting Minutes with Lakeland Police Department.



5. APPENDIX G LPD RECOMMENDATION

FURR R WEGMAN ARCHITECT S. P.A. ARCHITECT PROJECT NO.: 11-18	
Meeting Minutes 8-06-2012	
Those Present: Li Al Wilson Lakeland Police Department Li Richard Taylor Lakeland Police Department	
Cindy Green Fur & Wegman Architects, P.A. Michael Furr & Wegman Architects, P.A. Meeting Minutes:	
 Provided an overview of the long range plans for a trail to connect three city parks. Shared with Police concerns of safety and security with parts of the trail cutting through two portions of the Cleveland Heights Golf Course. The following was noted: A. The trail will be closed from dusk to dawn with gates at entry to golf course. B. The need for emergency vehicle access. C. What safety concerns the police would have with the proposed trail. 	
 3. The police were very positive and supportive of the trail plans. However they did bring up the following concerns or suggestions: A. Add call boxes and cameras on parts of the trail that can not be seen from streets. If cameras were installed, who would monitor? B. Have removable bollards (ability to get around or through) to access the trail in NEV's to provide for a security and for emergency vehicle access. C. Move the trail entrance (segment 6) on Cleveland Heights further north of Martin's Landings because of the crime rate in that neighborhood. D. The under brush would need to be removed to allow visual observation of trail from Cleveland Heights Blvd. E. Segment 3 (northeast corner of the golf course) was not as much of a concern as segment 6 of the trail. 	
625 East Orange Street Lakeland, Florida 33801	URR

ARCHITECTS, P.A. AA0003150

5. APPENDIX H OPERATIONS and MAINTENANCE

- Provide good access to trail.
- Good visibility from adjacent neighborhoods.
- A well maintained trail sends a message that the Lakeland Community cares about their public spaces.
- Recommend Parks & Recreation Department personnel close (and secure) parts of trail that are not visible from streets at night.
- Keep vandalism in check by encouraging trail users to report vandalism.
- Remove and re-place vandalized items in a rapid manner.
- Adopt maintenance guidelines similar to the ones shown on the following chart.



FURR

5. APPENDIX I SAMPLE MAINTENANCE CHART

MAINTENANCE TASK	FREQUENCY
Inspections	Quarterly
Signage Replacement	3-5 years
Site furnishings; replace damaged components	As needed
Fencing repair	Inspect monthly for holes & damage, repair immediately
Pavement markings replacement	1-3 years
Pavement sweeping/blowing	As needed
Pavement sealing; pothole repair	5-15 years
Introduced tree & shrub plantings, trimming	1-3 years
Shrub/tree irrigation for introduced planting areas	Weekly during summer months until plants are established
Shoulder plant trimming (weeds, trees, branches)	As needed depending on season
Major damage response (fallen trees, washouts, flooding)	Schedule based on priorities
Culvert inspection	Before rainy season; after major storms
Maintaining culvert inlets	Inspect before onset of wet season
Trash disposal	Regular schedule as needed
Litter pick-up	Regular schedule as needed
Graffiti removal	Weekly; as needed



