

city of peachtree corners

TECHNOLOGY PARK

MULTI-USE TRAILS STUDY

FEBRUARY 2016

quotes from public input

“The connectivity with residential to shopping will be a *lifestyle change* that is welcome”

“...off-road travel *from anywhere to anywhere*”

“...[to] *commute by bicycle* is invaluable...”

“..physical activity and *conserving the environment* is essential.”

ACKNOWLEDGMENTS

The City of Peachtree Corners would like to thank the residents, property owners, and other stakeholders for their enthusiasm, creativity and ideas.

CITY OF PEACHTREE CORNERS

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James Lowe III - Council Member, Post 2

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Jeanne Aulbach, Council Member, Post 4

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BACKGROUND

Peachtree Corners Livable Center Initiative

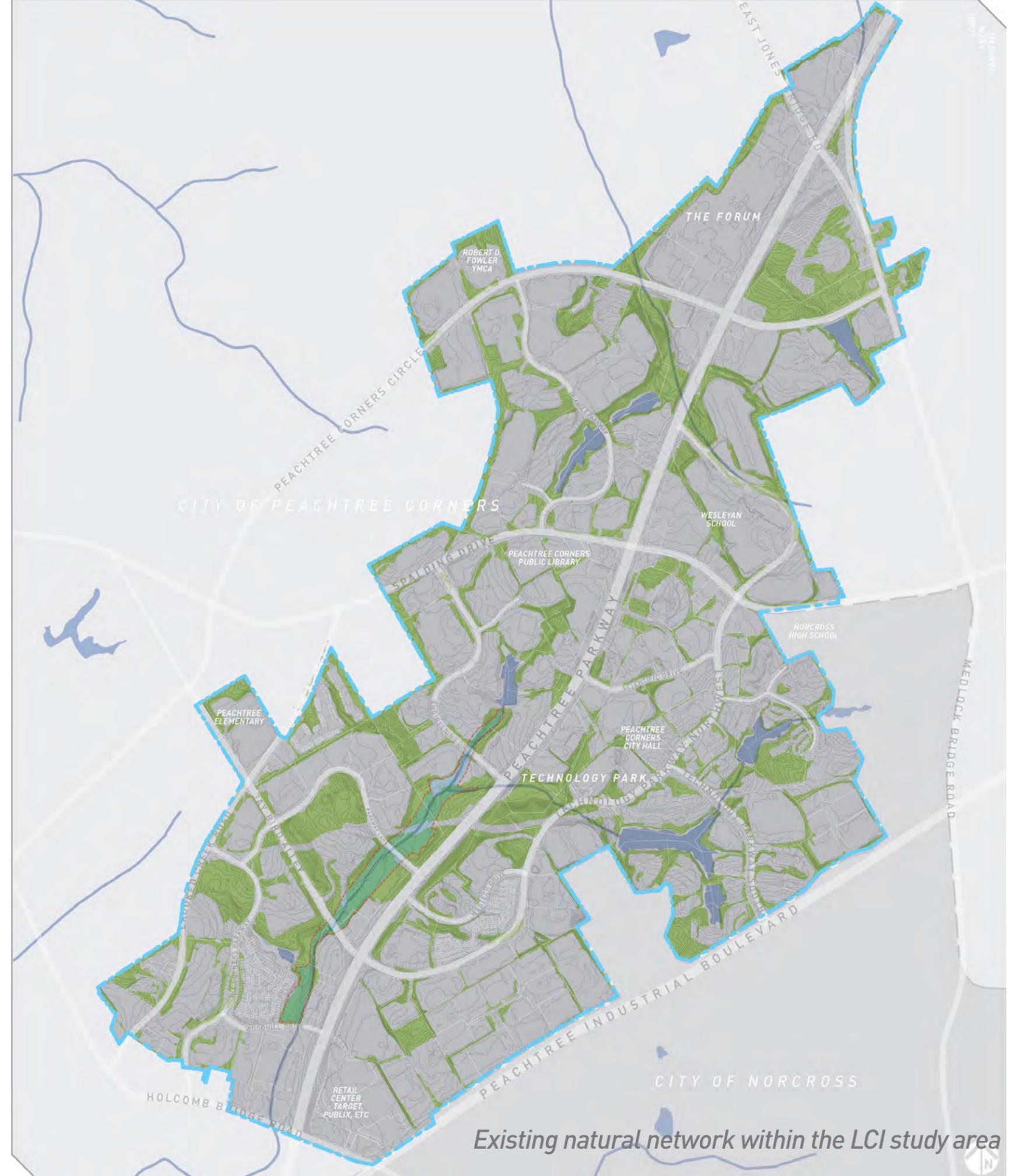
The genesis of this study stems directly from the 2015 Peachtree Corners Livable Centers Initiative, a study funded by the Atlanta Regional Commission (ARC) aimed at directing future growth into existing “activity centers and corridors”. Mobility projects (*Pedestrian improvements, multi-use trails, transportation improvements, etc.*) identified within LCI studies are eligible for implementation grants from the ARC once a study is adopted by the City.

The Peachtree Corners LCI focused on the economic and physical growth opportunities within City’s Central Business District, identified during the City’s first comprehensive plan in 2013. The study area consists of approximately 1500 acres of land surrounding Technology Park, the original catalyst for development in the area in the 70’s and currently the City’s largest office park and economic driver. Focusing on implementable strategies that could allow Technology Park to continue to compete both regionally and nationally, the study explored options to modernize the auto-centric office park to meet the demands of today’s walkability and livability-focused office hubs.

The analysis of existing conditions revealed that the development regulations, gas/sewer easements, and topographic conditions within the study area created a large network of connected green spaces and lakes preserved and hidden behind many of the Technology Park and surrounding area developments (visualized on the map to the right). These untapped elements presented a great opportunity to explore the potential of a paved trail system given the economic development value of this kind of amenity in today’s market. In relation to the Technology Park area, it would provide a unique pedestrian-focused mobility and livability experience that could help leverage its competitiveness as an office hub. Additionally, “walking and biking trails” were the most desired public amenities based on the robust public engagement process of the LCI.

Given this, the LCI planning team investigated the topographical and spatial conditions of the area in order to develop a conceptual trail network focusing on connecting residential neighborhoods to job centers and retail destinations (map on the next page). This potential network would connect to existing trails, future trails, and even sidewalks as part of an integrated network of pedestrian/bicycle paths.

The Peachtree Corners 2033 Comprehensive Plan and Peachtree Corners LCI Reports can be found on the City’s website. www.peachtreecornersga.gov



Existing natural network within the LCI study area

STUDY INTENT

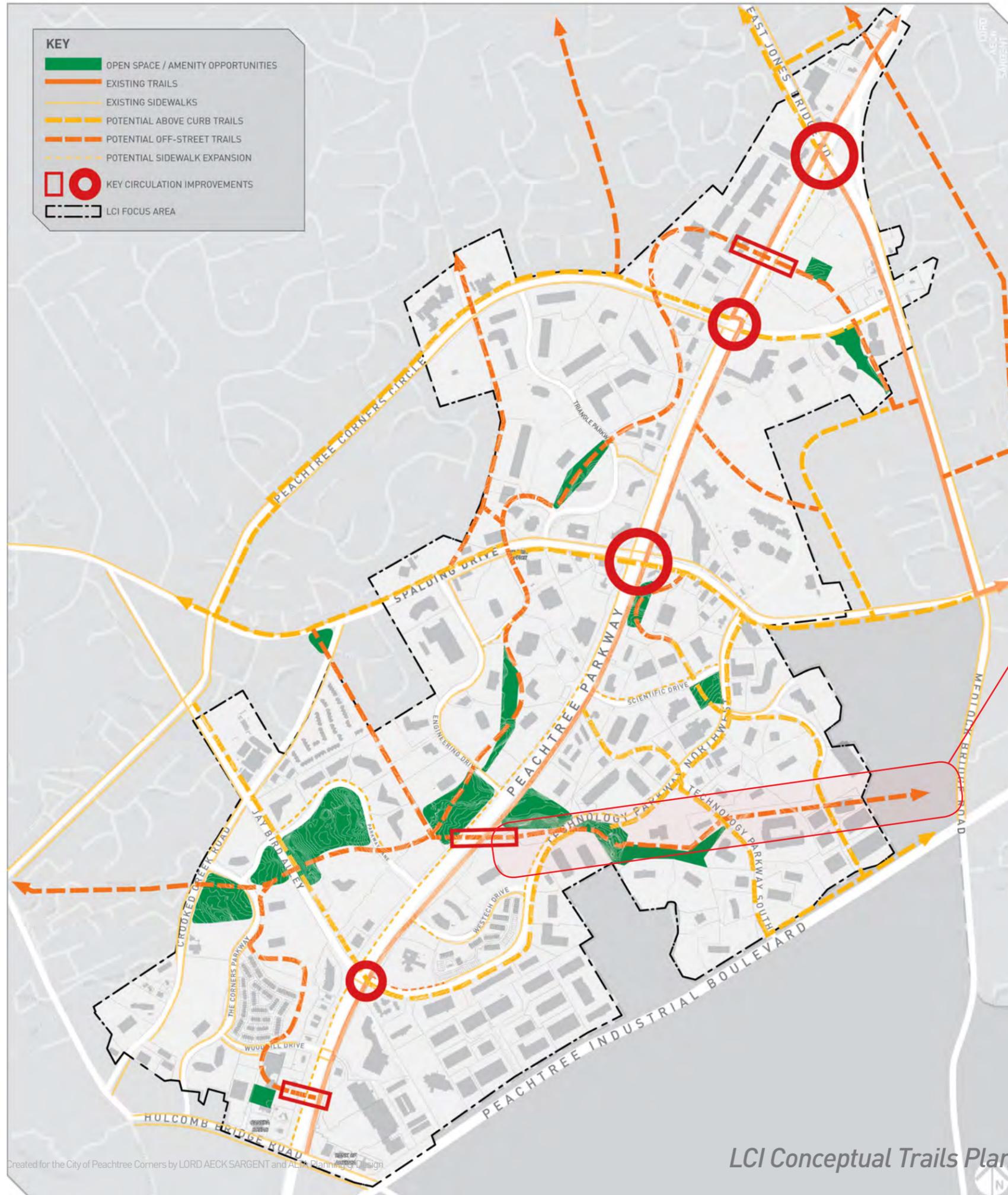
A

Given the nature of the LCI study, the proposed trail network was an initial high-level assessment of the potential location of trails and paths. As a result of the popularity of the trail system during the LCI process and its potential benefits to the City's pedestrian connectivity, livability, and economy, the City of Peachtree Corners retained a consultant team comprised of Lord Aeck Sargent and ALTA Planning & Design to assess, validate, and further refine the proposed Peachtree Corners LCI Conceptual Trails Plan. This so-called Technology Park Trails Study is focused on the following tasks:

Technology Park Trail Network

- *Field survey of proposed LCI Trails* - existing conditions analysis to assess feasibility and constraints for proposed routes
- *Trail Segments*- Identify approximate length and number of trail segments within Technology Park Trails network
- *Schematic Trail Alignments* - trail alignments based on detailed topographic, spatial, and field condition feasibility (does not include grading)
- *Conceptual Cost Estimates* - Conceptual costing of individual trail segments and overall trail network.
- **Segment A / LCI Project L4 - Detailed Design**

While most of the paths identified through the LCI require further feasibility studies, this path was identified as the most feasible initial trail segment largely due to its alignment along the Colonial Gas Easement and predominantly flat topography. The design team was tasked with progressing this segment through schematic design and detail costing in order to expedite its implementation.

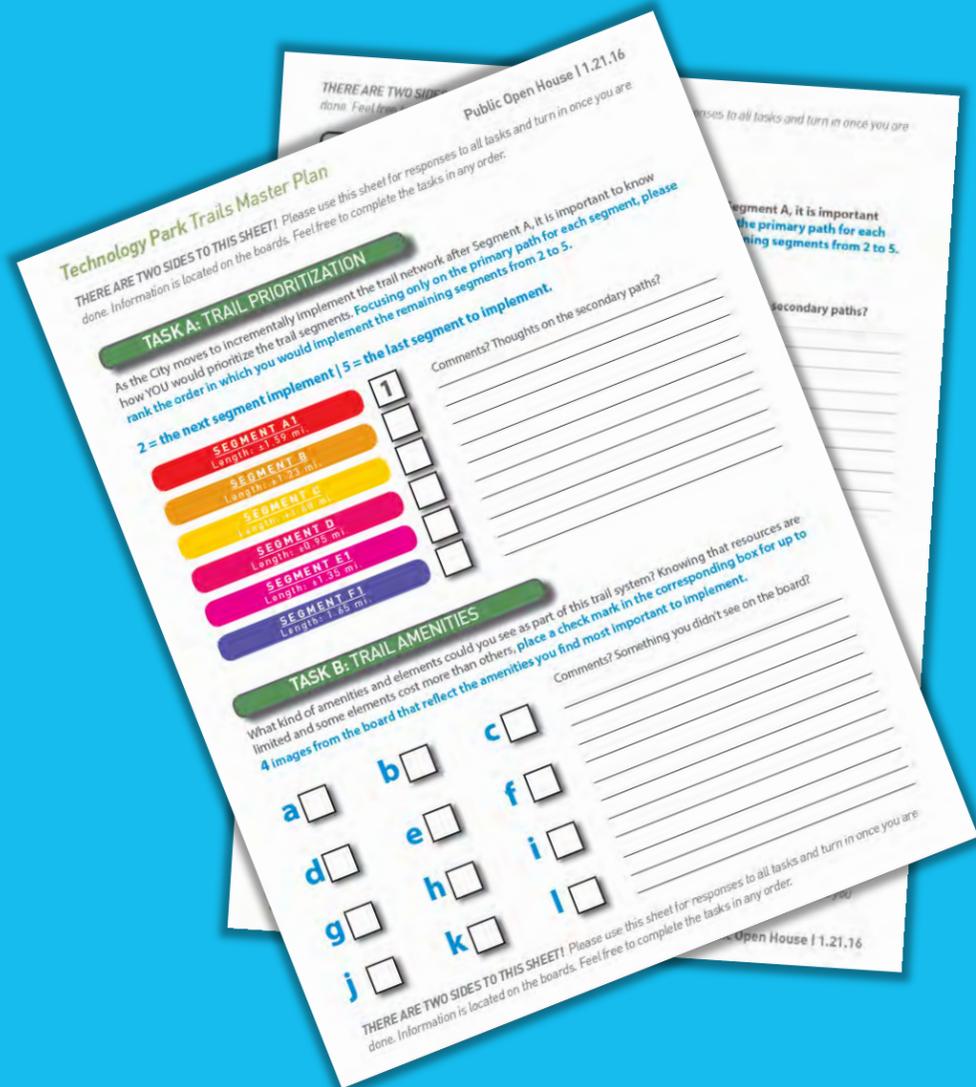


PUBLIC ENGAGEMENT

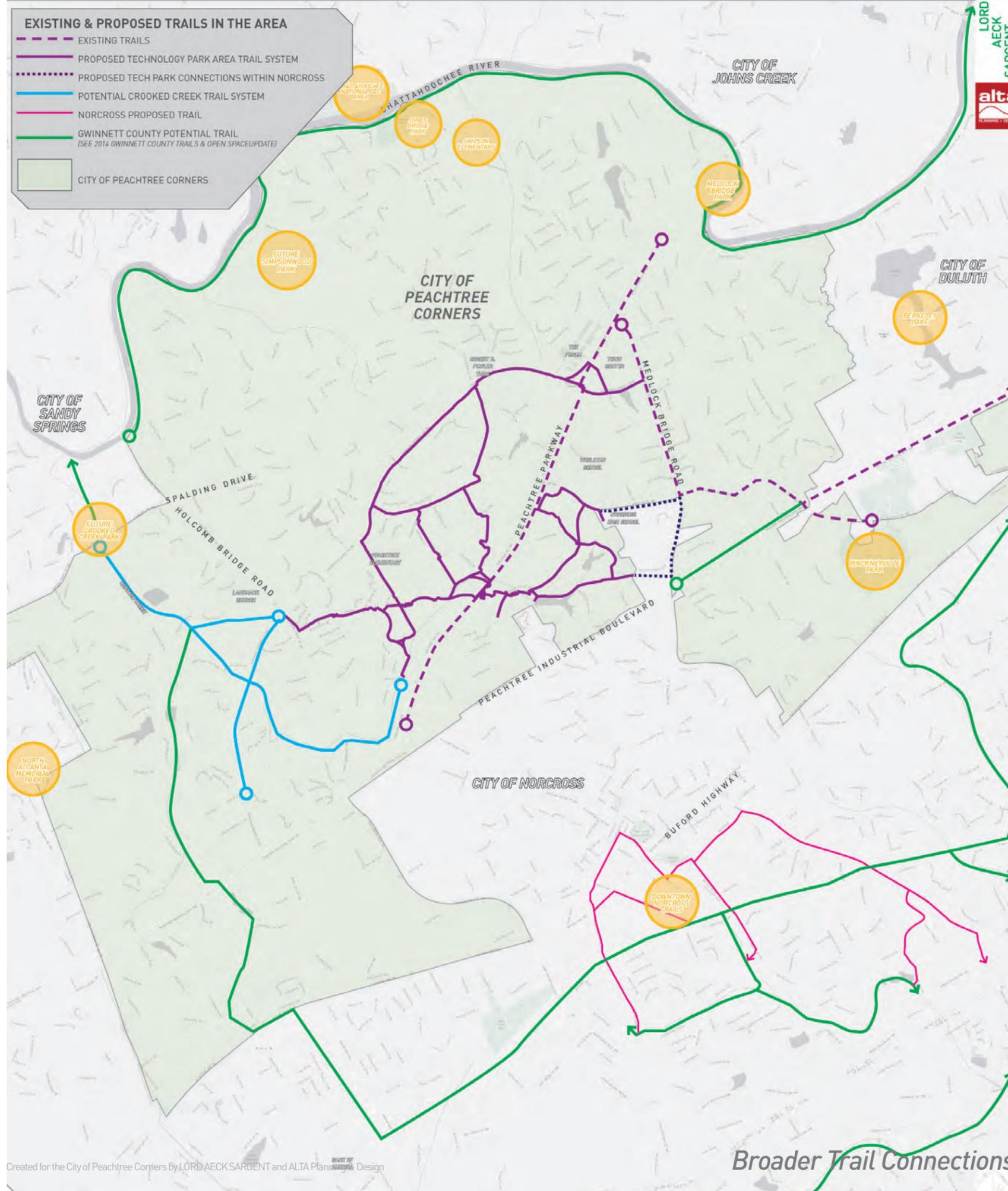
While specific trail alignments require a more technical approach, it is of paramount importance to understand the kind of experience people want to have on the future trails and where they want to go. Through an interactive public open house and an online survey, the City and Planning team received direct feedback from over 400 participants on:

- Trail Connectivity - What are key destinations outside of this trail network?
- Trails Prioritization - In what order would they build the trail segments?
- Trails Amenities - What kind of amenities would they like to see on trails?
- Trail Uses - What would you use the trail for?

This feedback along with the feedback provided during the Peachtree Corners LCI study was vital to the recommendations found within this document and invaluable in informing the broader opportunities for future trails & open space within the City. A detailed summary can be found within the appendix.



THE BIGGER PICTURE



Technology Park Trails Connections

It is imperative to note that this study is just a small part of what could be a holistic Peachtree Corners Trails system. However, establishing the Technology Park Trail network is an excellent starting point as it is centrally located within the City, leverages connections to existing trails, and creates initial connections from neighborhoods (through above-curb trails and sidewalks) to notable destinations within the City such as:

- Technology Park area offices
- Peachtree Corners City Hall
- The Forum, Future Town Center, and other retail options
- Peachtree Elementary, Wesleyan School, Norcross High, and Ashworth College
- Robert D. Fowler YMCA

Broader Picture

Ultimately, the success of this trail network will depend on establishing broader trail connections both within the City and the region. The map on the left displays the relationship of the Technology Park trails network to other existing and proposed trails within Peachtree Corners and surrounding Cities along with potential destinations (in orange) in the area. This map begins to reveal current gaps of connectivity and potential opportunities for trail alignment exploration. As the City moves forward with this, future trail networks, and an overall City wide trails master plan, it should seek to work closely with Gwinnett County, neighboring cities, and beyond to ensure proper connectivity to all key destinations in the region. More importantly, the creation of a holistic regional trail network is essential to providing opportunities for alternative mobility and promoting healthy, livable cities.

Desired Connections

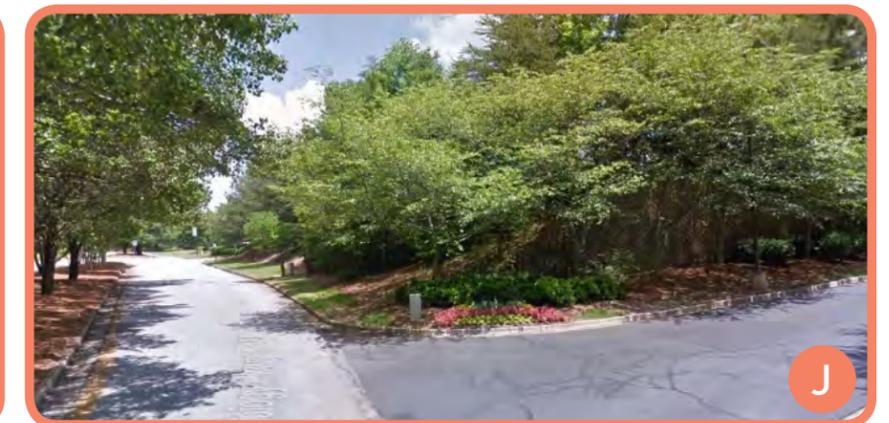
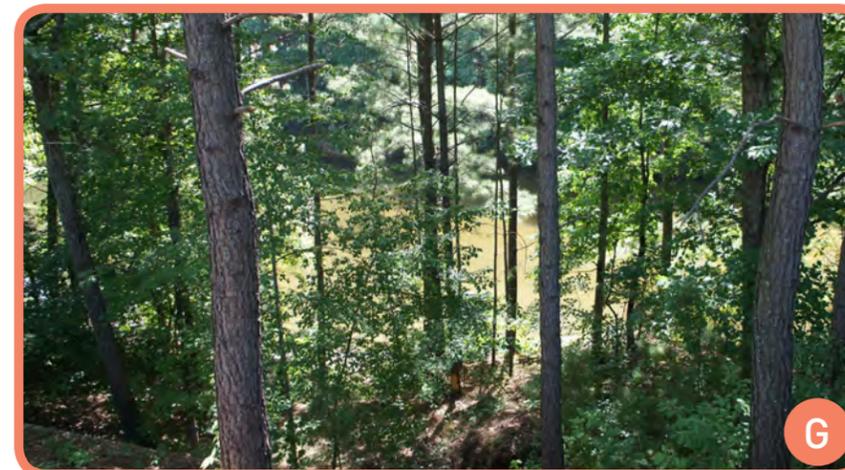
Through the public open house and online survey, participants were asked what their most desired connections are outside of the Technology Park Trail network. The top 5 destinations were:

- Chattahoochee National Recreation Areas (and Simpsonwood)
- Jones Bridge Park
- Downtown Norcross / Downtown Norcross Trails
- Pinckneyville Park & Soccer Complex
- Future Sandy Springs Crooked Creek Park

Broader Trail Connections

EXISTING CONDITIONS

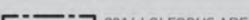
The field survey conducted by the planning team helped solidify the feasibility of many of the proposed LCI trail segments. As shown in the images to the right, a large portion of the segments already run along mostly flat lands through sewer easements, gas easements, cleared paths, and even some already created mulched paths. To the largest extent possible, the potential trail alignments take advantage of the untapped lakes and natural beauty of the area. Alternatively there were a few instances where land was too steep or had utility/spatial issues.



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LCI TRAILS VALIDATION

KEY

-  EXISTING TRAILS
-  LCI FRAMEWORK VALIDATED TRAIL
-  MODIFIED TRAIL ROUTE
-  LOW PAVED TRAIL FEASIBILITY (POTENTIAL UNPAVED / NATURAL TRAIL OR FUTURE SIDEWALK IMPROVEMENT)
-  POTENTIAL TRAIL HUB / OPEN SPACE
-  2014 LCI FOCUS AREA



Validated Trails

As evident by some of the images on the previous page, many of the trail paths called out during the LCI study run along existing easements, cleared paths, and public right-of-ways where the feasibility for construction is high with no major engineering required.

Low Paved Trail Feasibility

Further assessment of these trails revealed that on-site conditions were not favorable for paved trail paths. This is either due to topography, space constraints, and/or too costly. However, these paths can be explored in the future as unpaved trails "natural" trails or locations for the addition of typical sidewalks.

Alternative Routes

These new routes were identified in an effort to maintain an emphasis on small and large loops within the network. This connectivity is essential in providing routes for all types of users while also increasing the reach of the potential network.

LC

TRAILS FRAMEWORK

Technology Park Trail Segments

The framework map to the right delineates the validated trails into 6 main trail segments and 3 sub-segments based on their location, distance, connections, predominant trail type. The separation of these trails into segments allows the City to create a game plan for the phased implementation of this network.

To begin this plan, the segments have been separated into two tiers. Within each tier, the trails are organized based on the results of the public input process and the design team's assessment of feasibility and connectivity. However, it is important to note that the order in which these trail segments are ultimately implemented will depend upon future demand, development opportunities, property owner negotiations, other capital projects, and other factors influencing timing.

Currently Under Design

SEGMENT A1

TOWN CENTER/ FORUM - PEDESTRIAN BRIDGE*

**Not part of this study*

TIER I - Top Priority Trails

SEGMENT B

SEGMENT D

SEGMENT C

TIER II

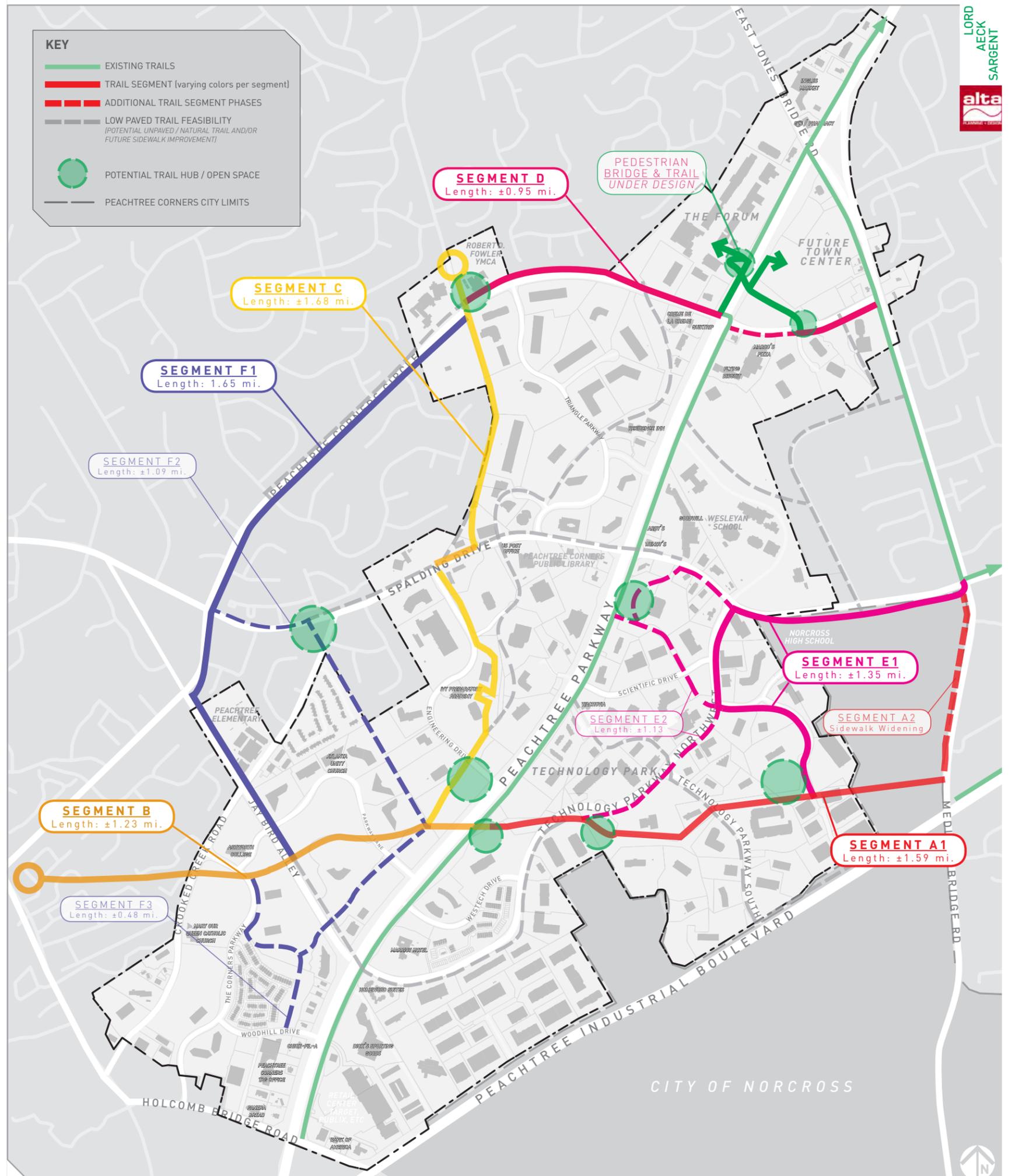
SEGMENT F1

SEGMENT F2

SEGMENT E1

SEGMENT E2

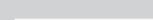
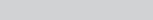
SEGMENT F3



ILLUSTRATIVE ALIGNMENT PLAN

This plan is a schematic look at the potential alignment of trail segments. However, it is important note that the exact routes may vary once a trail is in the detail design phase

KEY

-  EXISTING TRAILS
-  TECHNOLOGY PARK TRAIL SEGMENT
-  TRAIL SEGMENT LABEL
-  PEACHTREE CORNERS CITY LIMITS

TRAIL SEGMENT DETAILS

Conceptual Construction Costs & Distances

- A** Peachtree Pkwy. to Medlock Bridge Rd.
\$1.8 Million - Detailed Cost in Appendix- Dist: ± 1.59 mi.
- B** Peachtree Pkwy. to Holcomb Bridge Rd.
Conceptual Cost: \$ 1.2 Million Dist: ± 1.23 mi.
- C** Seg. B to Peachtree Corners Circ.
Conceptual Cost: \$ 1.5 Million Dist: ± 1.68 mi.
- D** Seg. C to Medlock Bridge Rd.
Conceptual Cost: \$ 650 K Dist: ± 0.96 mi.
- E1** Seg. A to Norcross High School / Medlock Br.
Conceptual Cost: \$ 875 K Dist: ± 1.35 mi.
- E2** Technology Pkwy. to Peachtree Pkwy. Loop
Conceptual Cost: \$ 450 K Dist: ± 1.13 mi.
- F1** Jay Bird Alley / Peachtree Corners Cir. Loop
Conceptual Cost: \$ 1.2 Million Dist: ± 1.65 mi.
- F2** Seg. F1 to Seg. B Loop
Conceptual Cost: \$ 775 K Dist: ± 1.09 mi.
- F3** Seg. B to Woodhill Drive
Conceptual Cost: \$ 410 K Dist: ± 0.48 mi.

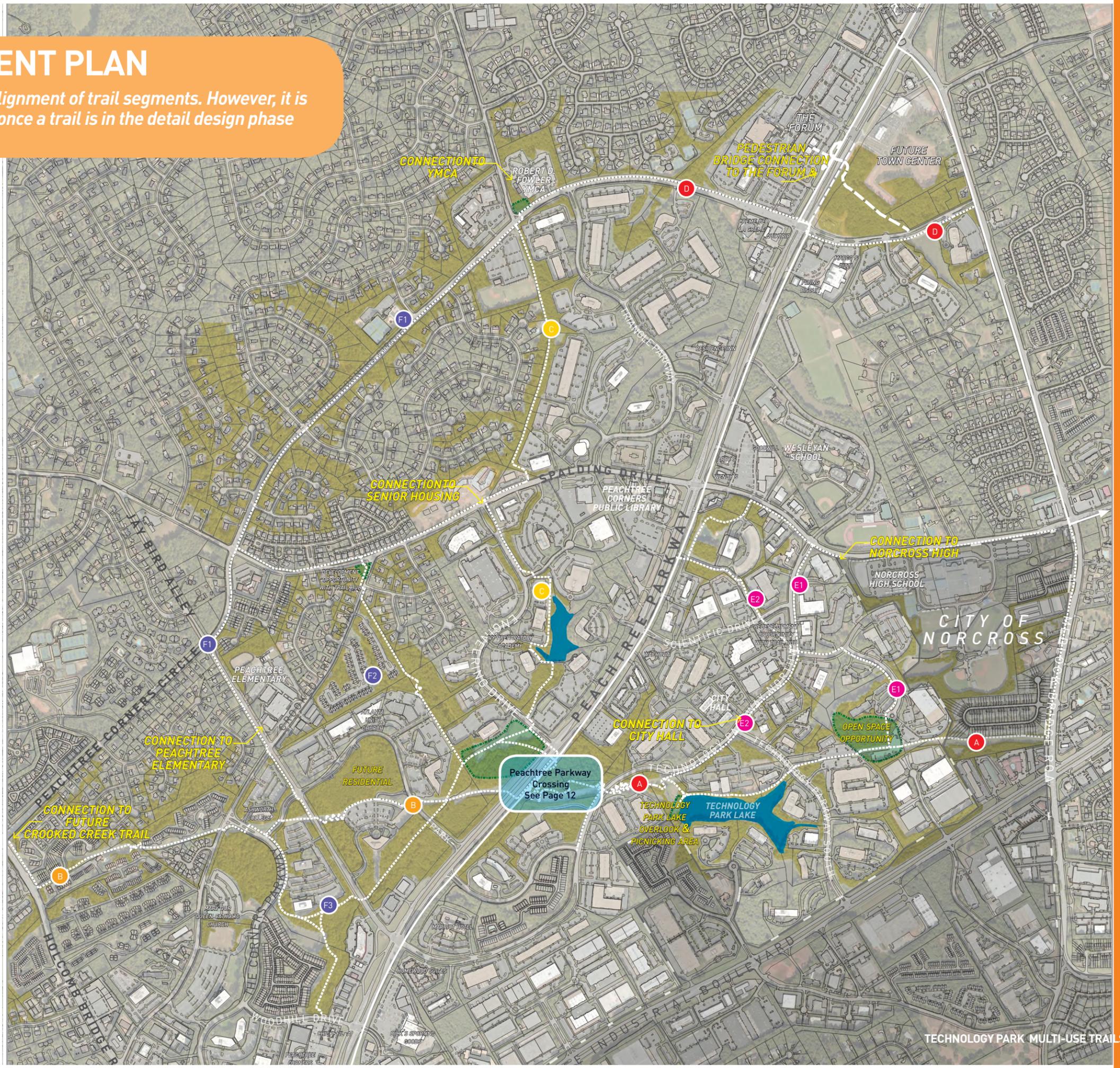
Peachtree Parkway Crossing
Conceptual Cost: \$ 2.5 Million

CONCEPTUAL COST OF TRAILS
±12 Million

TOTAL MILES IN PAVED TRAILS
±11.16 miles

Cost estimates for each segment were created using basic costs per linear foot for each "trail design unit" as described on page 14-15 and do not include trail amenities or design fees.

Total trail mileage does not include existing trails



TRAIL TYPOLOGIES

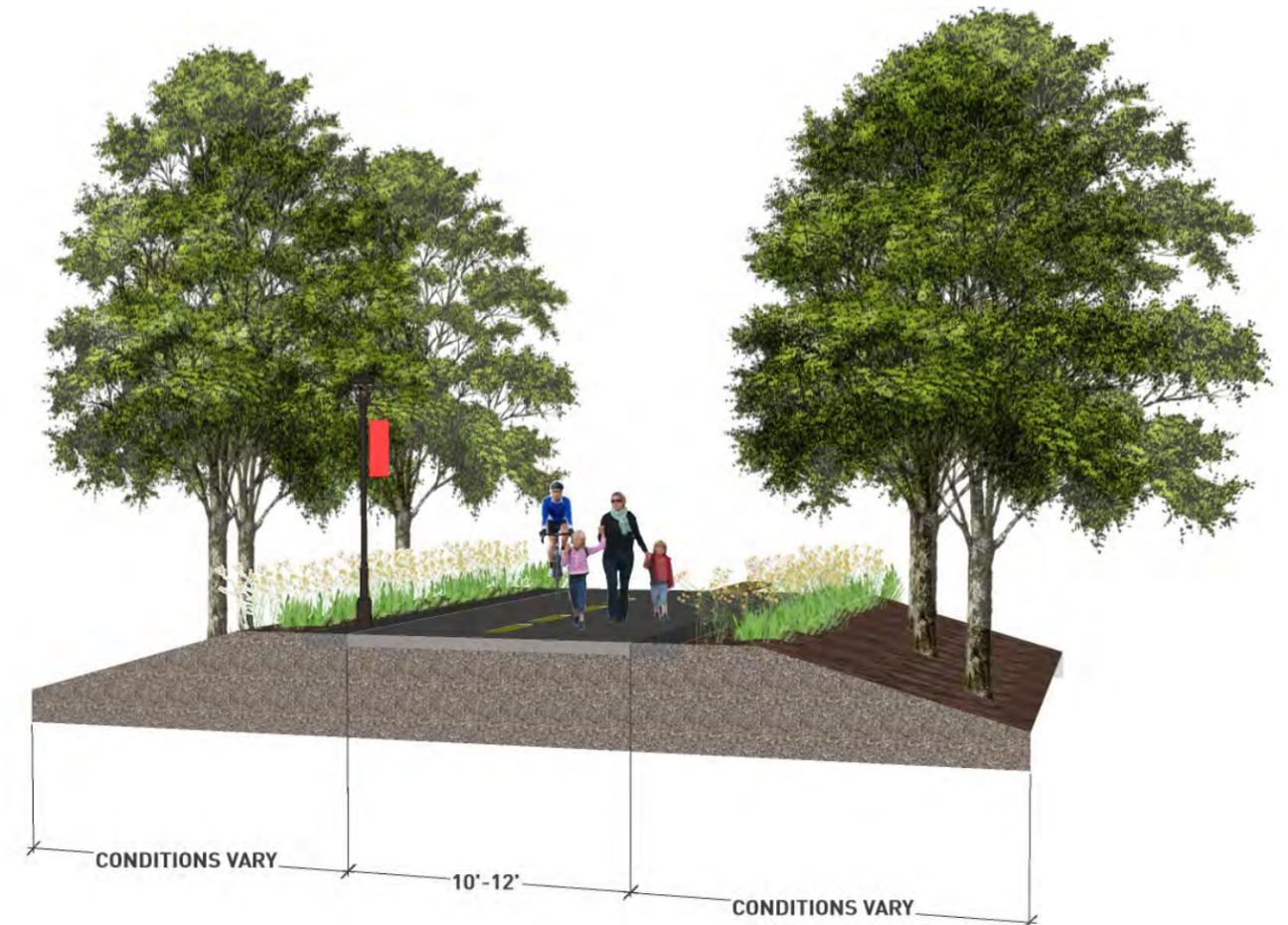
The trails proposed within this study consist of two typologies illustrated below. The implementation of these two conditions helps create a more diverse trail experience. This approach allows for a wider array of users by providing both natural trails- for those interest in nature walks and more remote paths; and urban trails- for users interested in more visible walks/rides but wanting more than just a sidewalk. Additionally, allowing for these two trail types greatly increases the connectivity of the network as a whole.

Off-street Trails

This trail type will be utilized along segments located within easements or natural areas. Given the undeveloped areas it will travel through, certain topographic and field conditions will require more unique applications and grade treatments. However, this will typically be a 12' wide concrete path.



Off-street Trails



Above-curb Trails

This trail type will be utilized in areas where the street right-of-way width will allow for a much more enhanced pathway compared to a typical sidewalk. This includes the addition of 2'-5' planted buffers, and 8'-12' concrete paths. The width of these elements will depend on the available right-of-way and existing constraints (i.e. utilities). The intent of this typology is to create a comfortable pedestrian environment that feels safe and separated from the road.



Above-curb Trails



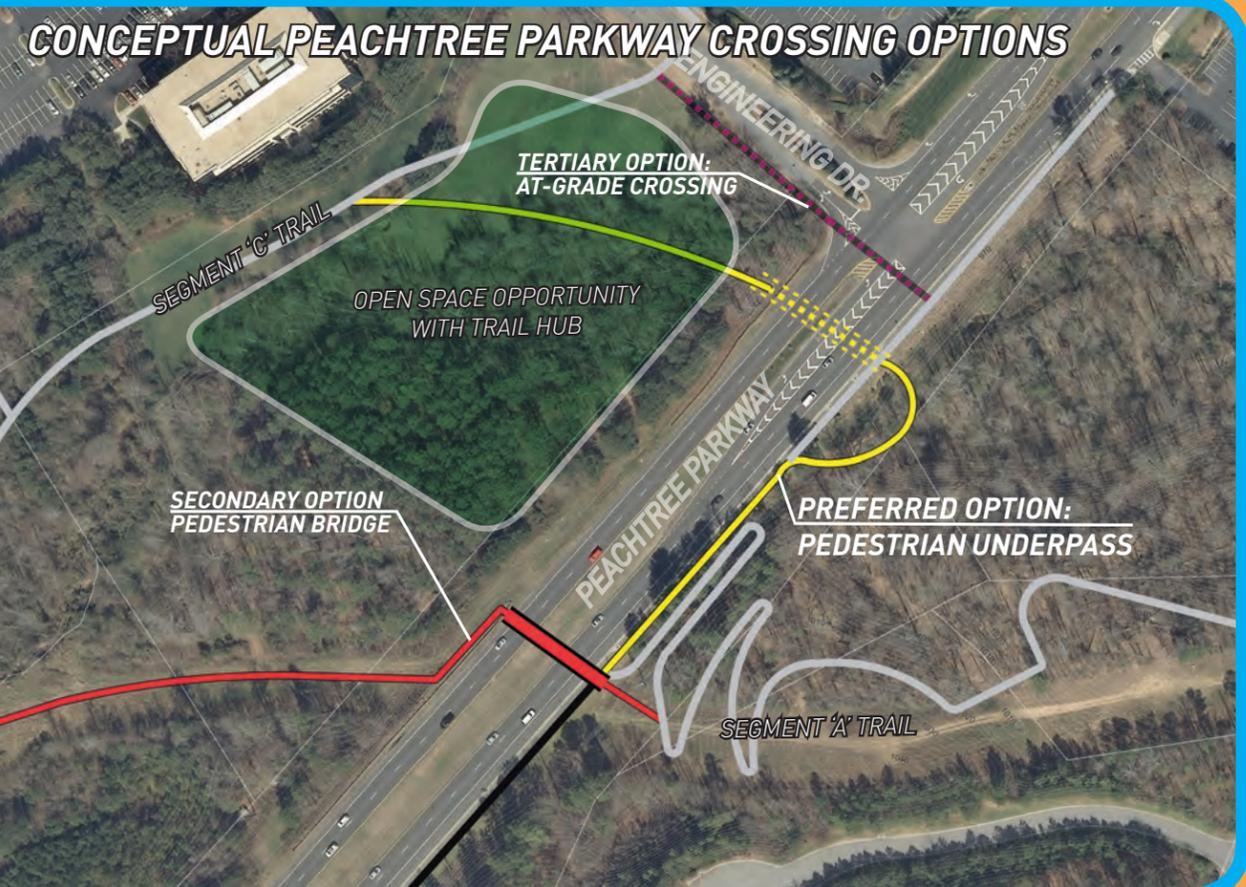
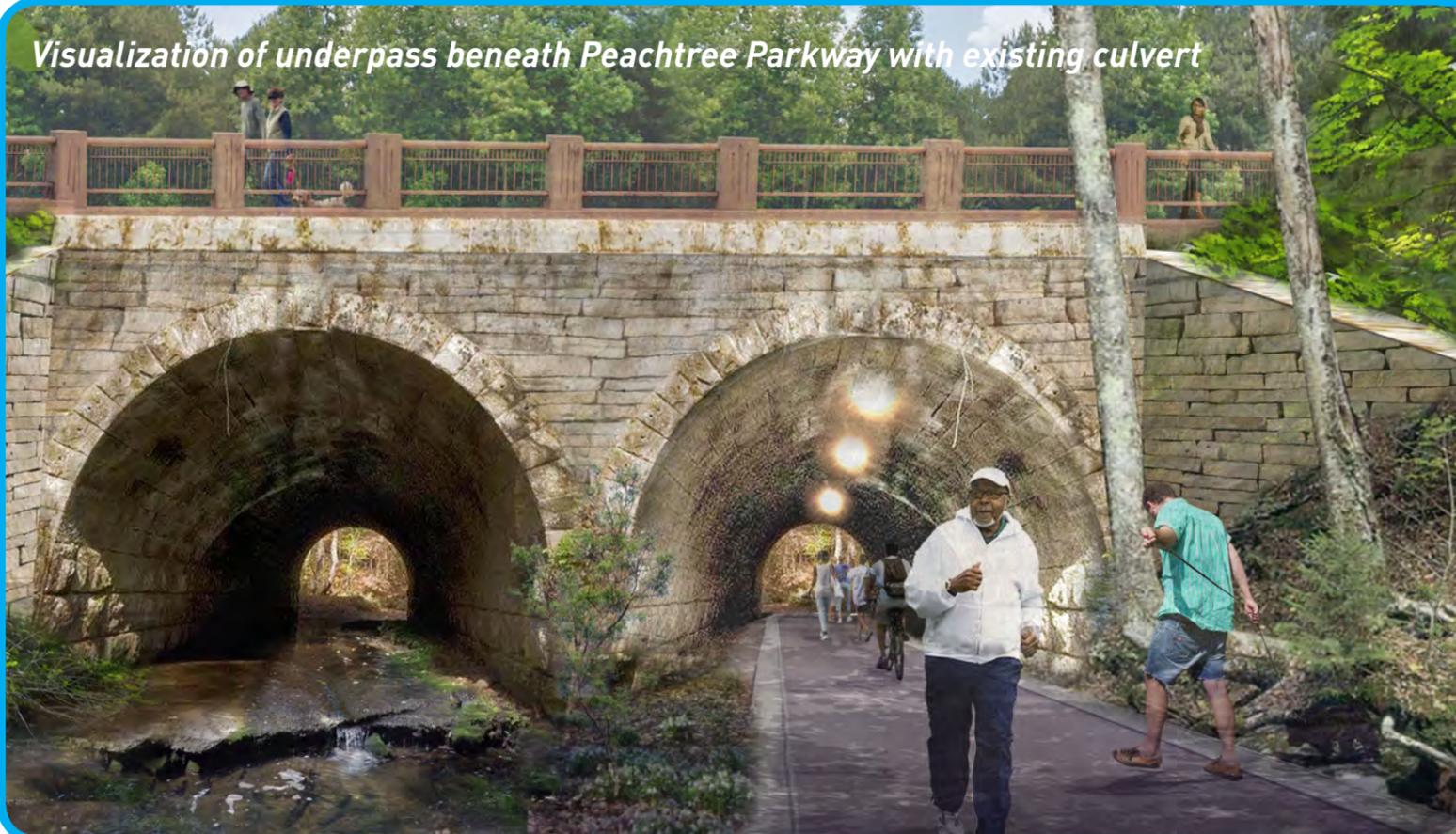


PEACHTREE PARKWAY CROSSING

A key component to consider for this trail system will be the way in which it connects across Peachtree Parkway between Segment A and Segment B or C. Proper design of this element will be key to creating a trail system that feels safe, fluid, and inviting.

Through this study the planning team looked at three potential options, from a design and operations standpoint, for crossing over, under, or across Peachtree Parkway. Given the current design of a pedestrian bridge occurring to the north and the operational difficulties of crossing at-grade along this State route, a pedestrian underpass is the most recommended option. This kind of element is key to the use of the trail system as it allows users to avoid vehicular conflicts and access trails on both sides of Peachtree Parkway without waiting at a light. While the exact location of an underpass needs further study, the images to the left are examples of existing pedestrian underpasses as well as a visual representation of what an underpass could look like below Peachtree Parkway.

Visualization of underpass beneath Peachtree Parkway with existing culvert

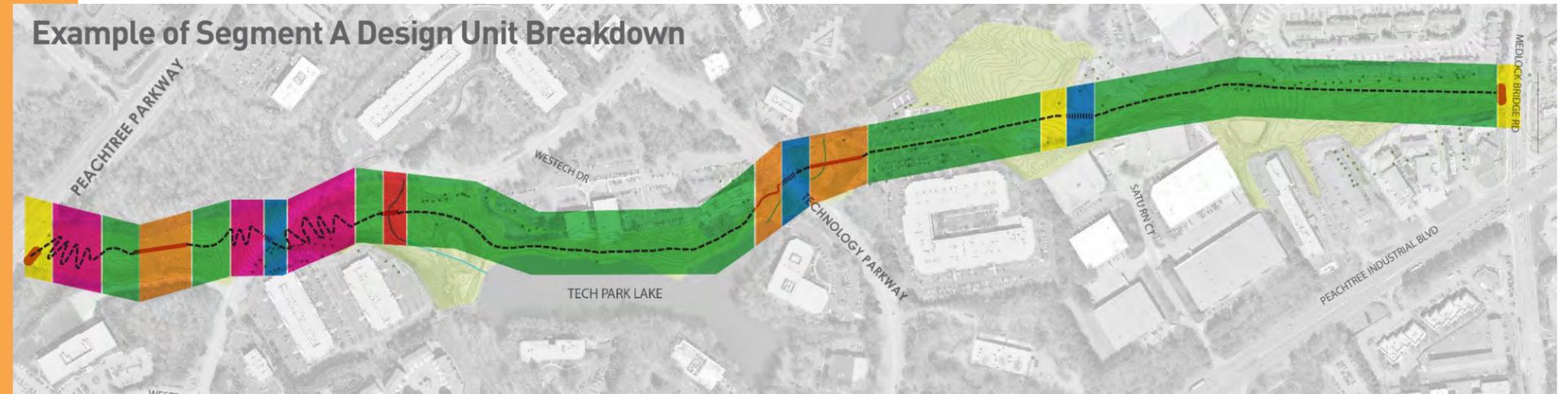


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TRAIL DESIGN UNITS

The detail design of these trails will be composed of a variety of trail “design units” to address different conditions found along potential alignments. The following pages provide examples of these unit types as well as an example of a design unit breakdown of Segment A.

As the City moves forward with design and implementation it should seek to establish design guidelines along with material and amenity standards to ensure a consistent character throughout the City’s future trail system.



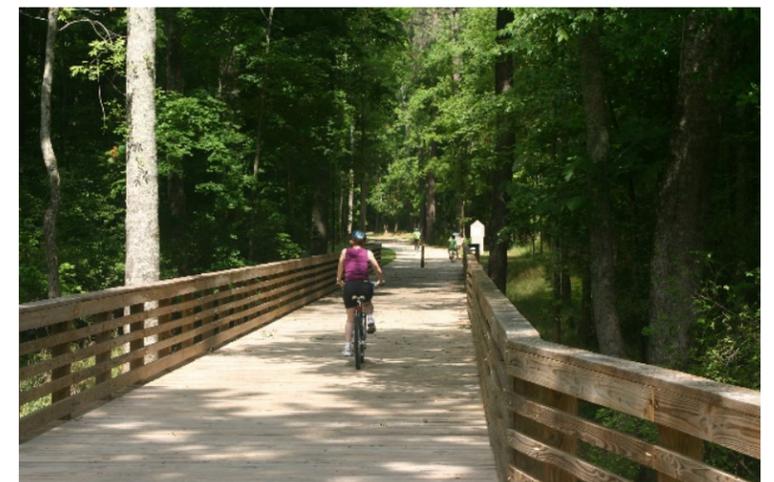
Flat or Mostly Flat Trails

As the most common trail unit, the majority of the trails will consist of typically 12’ wide concrete paths. They may be wider or narrower based on site conditions.



Boardwalks & Bridges

This unit is necessary in areas where it is too difficult to manage topographic changes through flat trails or across creeks and streams.



EI

TRAIL DESIGN UNITS



Switchbacks

In order to ensure trails are accessible to all users, switchbacks are utilized as a way to maintain trails at manageable grades in areas where a straight path may be too steep (slopes above 5%)



Roadway Crossings

Where trails meet roadways or parking lots, it is necessary to create clearly delineated and protected crossings to allow users to pass safely across. Typical crossings will use pedestrian activated Rapid Flashing Beacons and decorative planted medians



Trailheads & Hubs

While there are a broad range of trailhead types & hubs, these units are opportunities for wayfinding, branding, and/or moments of pause typically located at the intersection or entrance of a trail as well as in larger amenities such as developments, parks, and plazas.

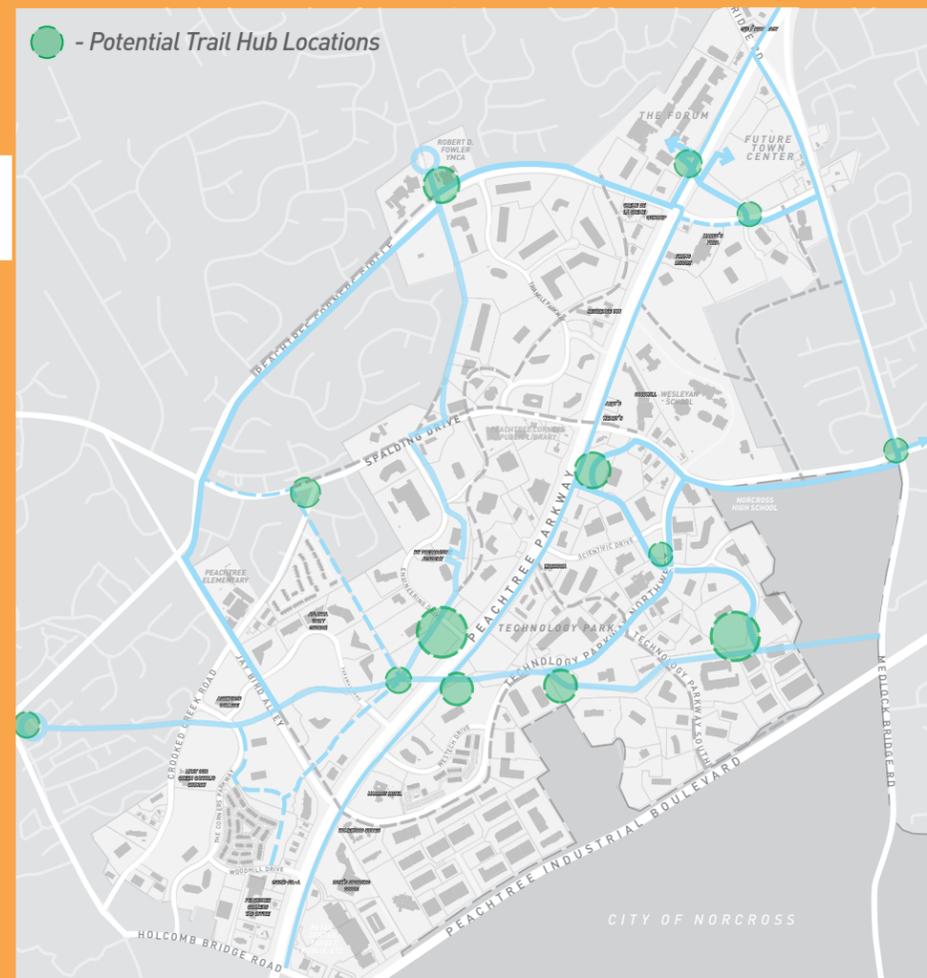
TRAIL HUBS & AMENITIES

Trail Hub Locations

As stated in the previous page, trail hubs create opportunities for moments of pause and recreational destinations along a trail. These are typically located at the intersection or entrance of a trail as well as in larger venues such as developments, parks, and plazas. The map below displays existing trail hub opportunities, both large and small, along the Technology Park Trail network. The potential hubs are located in areas that are currently underutilized, undevelopable, within easy access to parking, potential open space locations, and/or offer unique experiences along a trail. As new development occurs within the area, more opportunities for trail hubs may arise.

Trail Amenities

As part of the detail design of trail system standards, the City will have to select elements that could “fill” the trails and hubs. Given that resources are limited and there is a long list of items that could be used to amenitize trails, it is important that these elements be selected based upon the anticipated users, community desires, and future trends.



Priority Trail Amenities

The five most desired trail amenities are described below in the order of their popularity. While it is not feasible to implement all of these amenities due to costs, the City should seek to implement some as a standard and plan for the incremental addition of others as the popularity of its trails increases. These and other amenities listed below help give character to trails and greatly increase the user experience.

Other notable desired amenities were:

- Bike Parking
- Shelters / Pavilions
- Picnic Tables & Grills
- Outdoor Fitness stations
- Dog Runs / Pet waste disposal stations
- Emergency Call boxes / Police monitoring system

Public Restrooms



This amenity requires access to water, sewer, and electricity. Due to this, it is best suited for locations where a more robust trail hub can be established and, preferably, where there is opportunity for other uses such as open spaces & community destinations. While the cost of a small facility is not nominal, its implementation in a key location(s) can be highly valuable to those users looking to go for a long walk or bike ride.

What will people use the trail for?

Most popular responses:

1. Walk/ Stroll / Power walking
2. Casual bike ride / Bike for fun
3. To get to the Town Center
4. Jogging / Running
5. Walk the dog
6. Weekend outings

Benches & Site Furnishings



As the lowest cost and highest ranked element, site furnishings should be a top priority for trail amenities. The type and style of seating and other elements like trash bins and bike racks should be addressed in any design guidelines package established for this trail network or a city-wide trail networks.

Lighting



The popularity of lighting is a great sign that people are interested in utilizing trails at all times and deem it necessary to ensure safety. There are wide variety of lighting types for trails - low pedestrian lights, overhead, solar, decorative, etc -. The cost of lighting is high compared to other amenities but given its popularity, it will be necessary for the City to establish a lighting standard for its future trail systems.

Wayfinding Signage



This essential element is not only a navigational tool but offers great place-making and educational opportunities along trails. As one of the top five desired amenities, it is highly recommended that wayfinding signage standards be developed as part of any trail design guideline package. The cost of this element varies widely but has minimal installation and maintenance costs.

Water Fountains



The implementation of this amenity requires careful consideration of infrastructure and maintenance implications due its cost. However, when installed (especially with a dog spigot) they are highly used amenities that make a great difference in user satisfaction of trails.

Future Trends in Transportation:

A large percentage of responses focused on transit oriented uses for future trails.

Over 240 people want to use the trails to get to non-recreational destinations (i.e. Forum, Town Center, Grocery Store)

Over 75 people seek to use the trails for commuting purposes. As infill of Technology Park increases that number will grow.



EXISTING

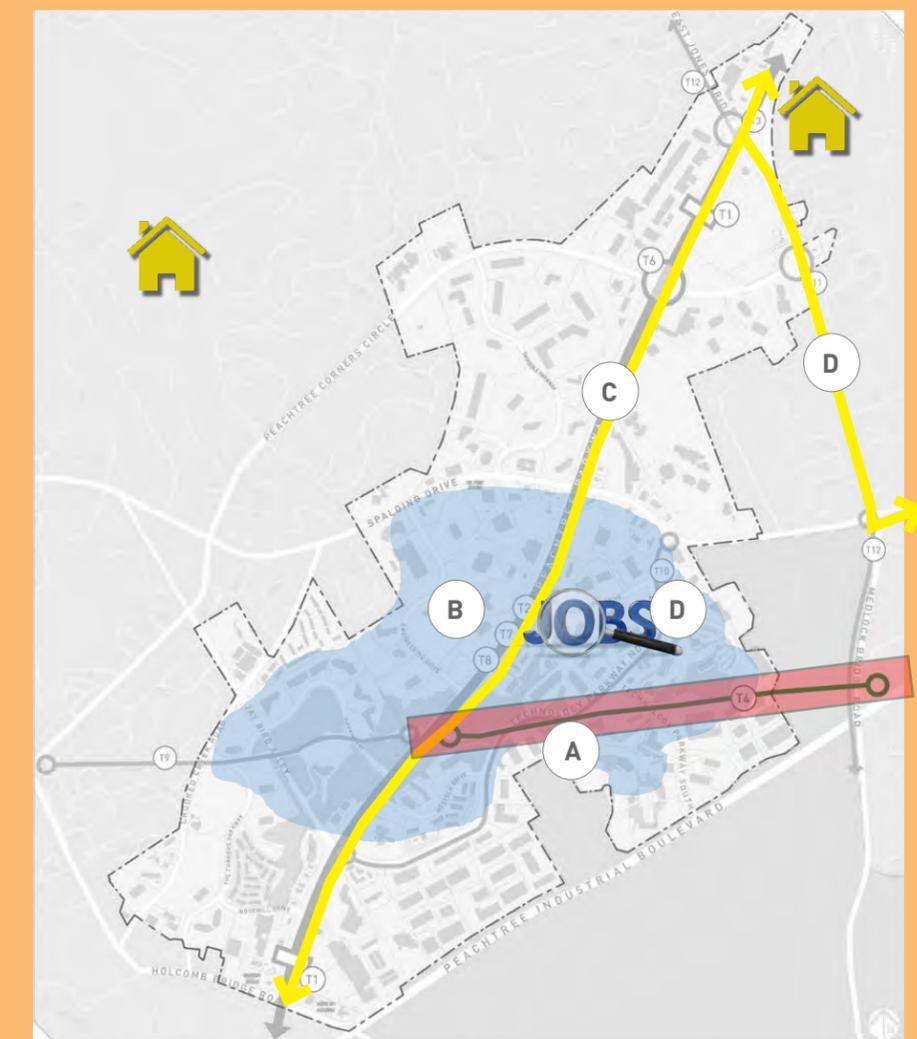


POTENTIAL

THE NETWORK'S FIRST TRAIL

As part of this effort, the design team was tasked with advancing Segment A to a more refined schematic level. While the other paths proposed during the LCI study required further validation, Segment A is an excellent trail for initial implementation due to the reasons laid out below:

- A** Utilizes existing gas easement: *minimizes property "issues" and takes advantage of already cleared land*
- B** Travels through the heart of Tech Park: *scenic natural features, connects office buildings, redevelopment opportunities, potential to catalyze future development*
- C** Connectivity to existing trails: *Connects to 5+ miles of existing trails*
- D** Connects Jobs to Homes: *Sets the stage for multi-modal commuting options for future generations*



IF

A schematic level alignment drawing set is available within the Appendix of this document.



city of peachtree corners

TECHNOLOGY PARK

MULTI-USE TRAILS STUDY