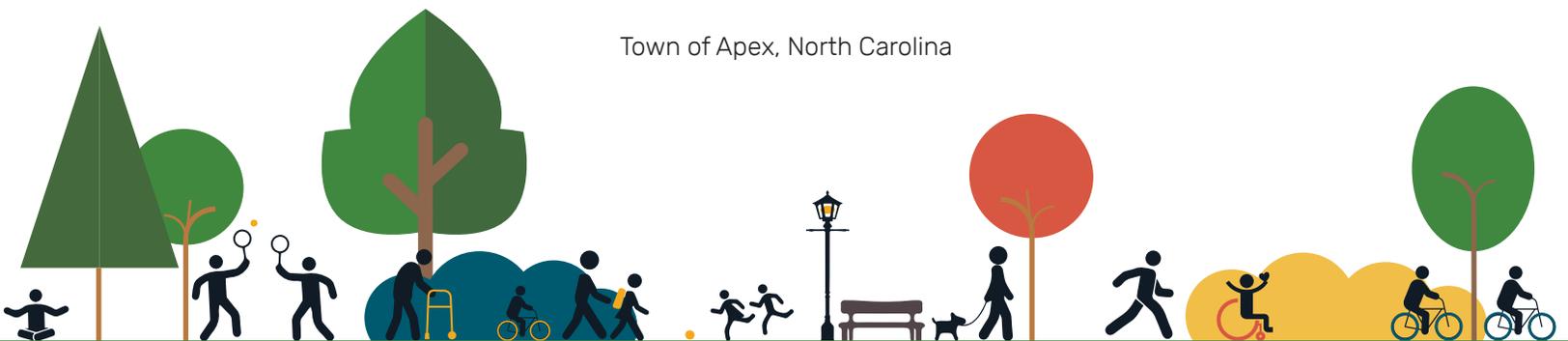**MAY 2023**

MASTER PLAN FOR PARKS, RECREATION, CULTURAL RESOURCES, GREENWAYS, AND OPEN SPACE

Town of Apex, North Carolina

TOWN OF APEX

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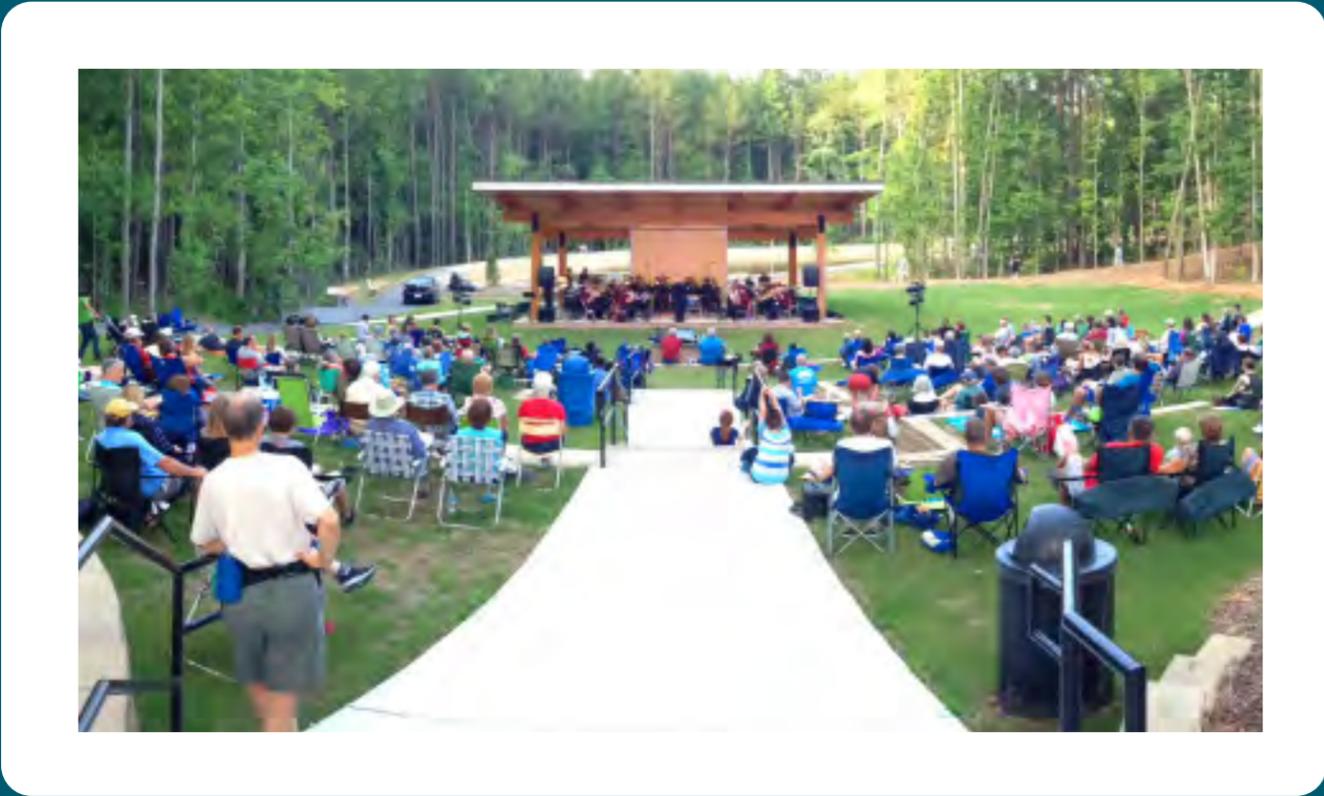
The Town of Apex embodies its slogan, 'The Peak of Good Living'. Apex is a rapidly growing town, committed to its small-town charm, community connections, and civic pride. Its beautiful parks provide active recreation coupled with an immersive experience in nature. Visitors flock to Apex to enjoy unique amenities like the Rodgers Family Skate Plaza, Elevate Fitness Course, special events like PeakFest, and facilities like the Halle Cultural Arts Center. It is no surprise that the Town has consistently received accolades such as Best Place to Live, and Top Ten Best Towns. The Parks, Recreation and Cultural Resources Department plays a major role in making the town the ideal place to live, work, and play.

The Town of Apex is a desirable place to put down roots—which has led to its rapid growth. As Apex has grown, the demographic make-up has changed, creating new interests and needs for recreation and cultural offerings beyond traditional programming. The Town is enthusiastic about expanding traditional recreation with more contemporary, forward-looking opportunities that serve all Apex residents, attract visitors, and create experiences that are uniquely Apex.

Figure ES.2 - *Greenway Trail*

Envision the Future of Parks, Recreation and Cultural Resources

The Town of Apex completed the previous Parks, Recreation and Cultural Resources (PRCR) Master Plan in 2013. In 2021, the Town embarked on the journey to update the previous plan and guide the vision for the Department over the next 10-year planning horizon.

The updated master plan acknowledges the shifts in demographics, growth patterns, and recreation trends and contextualizes these trends for the Town of Apex. It proposes a visionary path to enhance current parks and recreation services, ways to invest in new initiatives, and identifies projects to transform the scene of recreation for Apex residents and visitors by 2031.

The 2023-2033 comprehensive master plan for parks, recreation, cultural resources, greenways, and open space identified the following goals for the planning process.

Goals

> Replace the 2013 PRGOS Master Plan
> Identify community values
> Define the parks system's role in the future of the Town of Apex
> Develop a resource for elected officials, other town departments, and the public to guide future actions
> Provide a framework for the PRCR Department
> Guide improvements to current parks system
> Accommodate additional demand by new residents
> Develop the action and implementation plan
> Qualify to access certain state and national funding sources

1800+

The planning process included more than 1,800 touch points with the community, advisory commission, Town staff, and Town Council combined.

3- Asset Mapping Sessions
2- Open Houses
2- Special Events
1- Online Questionnaire Survey
1- Scientific Survey
4- Focus Group Meetings
3- Visioning Workshops
3- Draft Recommendations Sessions
1- West Street Park Community Engagement

The Town of Apex initiated the planning process in 2021 to answer three critical questions:

> Where are we currently as the PRCR Department?
> Where do we want to go?
> How do we get there?

Through this process, the Department identified gaps and uncharted opportunities, and set up aspirational goals to be achieved over the next ten-year planning horizon. The goals and recommendations are validated through a robust community engagement process and feedback from the Town Council, Advisory Commission, and PRCR Department Staff.

RESEARCH

FINDINGS

RECOMMENDATIONS

FINAL PLAN

COMMUNITY ENGAGEMENT

GUIDING PRINCIPLES

ACTION PLAN

Figure ES.3 –Planning Process

Community Engagement by Numbers

513
Households
Scientific Survey

56
Participants
Virtual Open House

40+
Participants
Visioning sessions

23
Participants
Focus Groups

20
Participants
West Street Park

200+
Participants
Pop up Event
Peakfest 2021

748
Participants
Online Questionnaire
Survey

300+
Participants
Pop up Event
Peakfest 2022

37
Participants
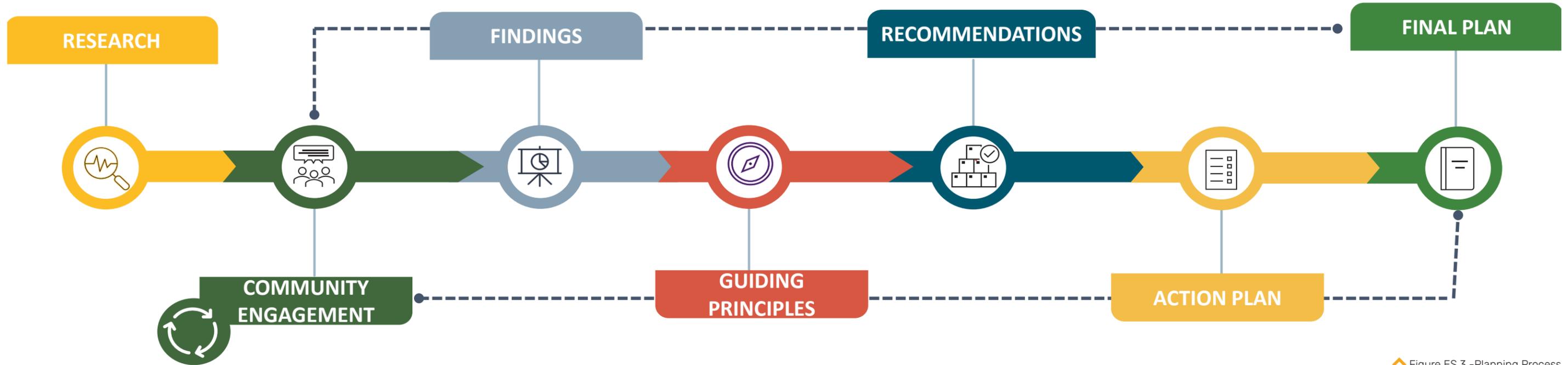Asset Mapping
Sessions

50+
Participants
Draft Recommendations
Work Sessions

Figure ES.4 Community Engagement by Numbers

State of the System

GREENWAYS ASSESSMENT
› Evolving and expanding system
› Town's and community's central focus on connectivity to destinations
› Development-constructed greenways as new projects are built in Town
› Challenges upkeeping older sections and managing new ones
› Design standards are being implemented on new sections

What We Heard…

ACCESS TO FACILITIES

53% - Residents drive to access greenways and parks

DESIRE FOR DESTINATIONS

68% - Other Greenways

65% - Natural areas + Open Space

64% - Parks + Playgrounds

REASONS FOR NOT USING GREENWAYS

38% - Lack of safe connections

32% - Lack of information
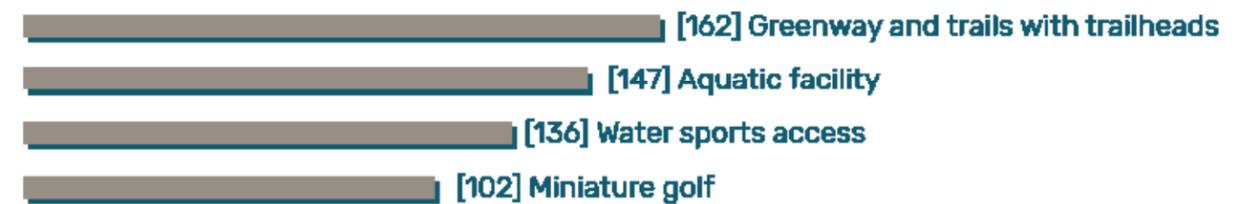
32% - Lack of destinations

State of the System

PARKLAND ASSESSMENT
› Equitable park distribution
› Acquisitions in high growth areas
› Well-maintained high-quality park amenities with diverse programming
› Well loved, high demand, and aging facilities
› High demand for rentals and organized activities

What We Heard…

99% - Agree that parks add to the quality of life

91% - Agree that Apex parks are safe

91% - Are supportive of improving / upkeeping existing facilities

PRIORITY INVESTMENT RATING FOR FACILITIES

[162] Greenway and trails with trailheads

[147] Aquatic facility

[136] Water sports access

[102] Miniature golf

State of the System

INDOOR RECREATION SPACE + PROGRAMMING ASSESSMENT

› Town of Apex currently has 86, 294 sq. ft. of indoor recreation space concentrated in the town core and current level of service is 1.37 Sq.Ft/ capita.

› These facilities include a community center, a senior center, and a historic cultural arts center.

› The senior center was opened at Town campus in November 2021.

› The community center is in great condition. As most senior programs shift to the senior center, there is an opportunity to expand programming at the community center.

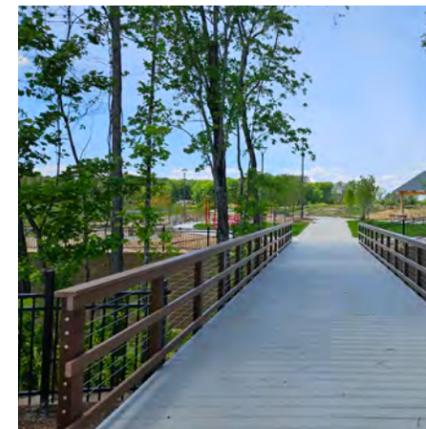› The renovated Halle Cultural Arts Center is a unique destination in downtown Apex.

97% - Rate programs/ events high quality

55% - Prioritize developing sense of community through parks and recreation

What We Heard...

PRIORITY INVESTMENT RATING FOR PROGRAMMING

[200] Outdoor movies and concerts

[177] Aquatic programs

[166] Fitness + wellness programs

[148] Arts programs

[146] Water sports

[141] Special events + festivals

Plan Framework

The Town of Apex community places high value on aspirational goals. This plan's recommendations and implementation strategies are based on the aspirations, expectations, and priorities shared by the community. The year-long planning process was established on the tiered framework of themes, guiding principles, recommendations, and action items, all rooted in the community values that Apex residents shared throughout the planning process.

THEMES
GUIDING PRINCIPLES
RECOMMENDATIONS
ACTION ITEMS

Themes

Three themes emerged from the robust community engagement:
› Expand
› Experience
› Excel

APEXpand

Apex residents would like to **Expand** the Town's offerings with additional parkland, recreational programming, and a more connected greenway system while developing environmental stewardship programs and opportunities to strengthen the culture of belonging.

APEXperience

Residents want to **Experience** unique amenities and programs for all ages, abilities and interest that encourage a healthy lifestyle, explore cultural avenues and provide a strong sense of community.

APEXcel

Residents want to see the PRCR Department **Excel** in operational efficiencies, outstanding customer service, and best-in-class programming and facilities.

Guiding Principles

Each guiding principle is tied to a particular theme. These guiding principles were derived from the needs and desires of the residents shared during the community engagement process, along with the input received from the Advisory Commission, Town Council, and PRCR Department staff.

Nine guiding principles emerged through the robust community engagement process. The guiding principles provide the roadmap for the future of Apex Parks, Recreation and Cultural Resources. Because the themes and guiding principles are rooted in the community values, they rarely change over the 10-year planning horizon set for the project. The project priorities may change, but the guiding principles are the foundational elements for decision-making.

THEME - **APEX**pand

CONNECTIVITY

Prioritize interconnected public realm through greenways, bikeways, and transportation.

Apex residents have expressed a strong desire for expanding the greenway system and connectivity to destinations including parks, natural areas, and open space.

› Implement the proposed greenway network plan to improve access to parks, nearby greenways, and other local and regional destinations.
› Prioritize completion of greenway corridors that meet the highest levels of criteria established in the prioritization matrix.
› Encourage and support greenway use through placemaking strategies.
› Evaluate performance of the greenway network annually.

RECREATION OFFERINGS

Expand recreation offerings to attract new participants, retain current ones, and meet the needs of diverse demographics of Apex.

Apex residents have expressed a strong desire for a variety of program offerings that inspire people to try something new and provide opportunities for varying interests.

› Acquire 193 additional acres to continue to provide 10 ac/ 1000 pop. Level of Service standard.
› Build 39,084 sq. ft. of additional indoor facility space by 2031.
› Develop the existing vacant parkland to continue to provide recreation offerings for the growing population.
› Continue to invest in existing parks and facilities to meet community priorities.
› Continue to offer diverse recreation programs for growing and changing demographics of Apex.
› Effectively manage and operate the core program areas.

ENVIRONMENTAL STEWARDSHIP

Expand efforts to protect the natural assets and collaborate on town-wide sustainability efforts.

Apex residents value access to natural areas and understand the positive health outcomes it provides. A desire for environmentally sustainable operations and a need for environmental education programming was mentioned.

› Acquire 65 acres of conservation lands by 2031.
› Promote environmental stewardship through park and facilities design and focus on environmentally sustainable operating practices.
› Continue to support town-wide initiatives for energy conservation through parks and recreation.
› Focus on nature-based programming to generate environmental awareness.

CULTURE OF BELONGING

Nurture the culture of belonging by prioritizing inclusion, diversity, equity, and accessibility.

Apex residents consider diverse parks and recreation offerings for all ages and ability levels as an asset to the community. Expanding cultural events to celebrate the diversity of demographics was indicated as a future need.

› Achieve equitable access to parks, facilities, and programs for all Apex residents.
› Support special events and programs that represent diverse cultures in Apex.
› Continue to provide age targeted recreation programs that appeal to diverse interest groups.
› Prioritize PLAY opportunities for all ages and abilities.
› Prioritize placemaking strategies to create welcoming spaces that attract a wide range of participants.

THEME - **APEX**perience

HEALTH + WELLBEING

Support health and wellbeing of Apex residents through parks and recreation.

Apex residents ranked fitness and wellness programs as one of the top priorities for investment and there is a town-wide consensus that parks and recreation has a positive effect on the community's health and quality of life.

› Encourage development of amenities and programs that provide physical, social, and mental health benefits.
› Promote access to healthy lifestyle choices.

SENSE OF COMMUNITY

Provide a chance for people to socialize, form friendships, and discover common grounds.

Apex residents indicated creating connections and developing a sense of community should be one of the most important considerations when prioritizing parks and recreation investments. Parks provide a chance for social cohesion where people get to know each other and feel inspired.

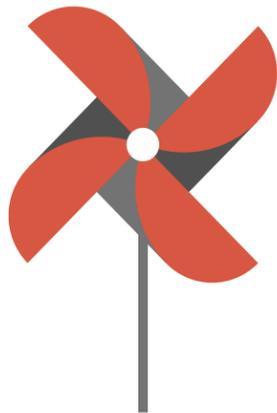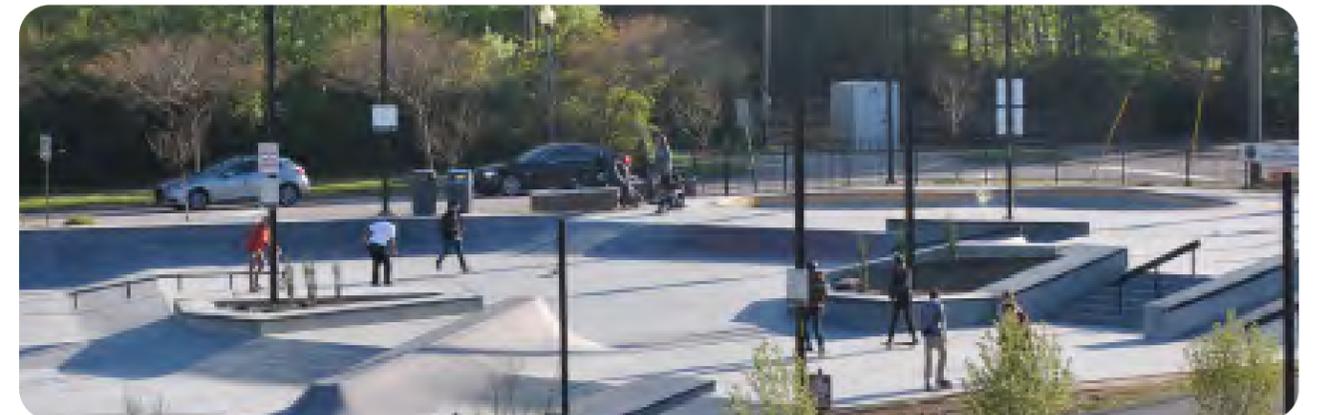› Provide opportunities for residents to connect with each other and encourage social interaction.

UNIQUE TO APEX

Reflect on Apex's culture and history through the design of spaces that are unique, innovative, and imageable.

Apex residents want to see innovative programs and amenities that attract out of town visitors to Apex as a way to generate economic impact.

› Continue to offer cultural arts programming to appeal to diverse interest groups and cultural backgrounds.
› Promote "unique to Apex" theme while designing new parks and amenities.

THEME - APEXcel

OPERATIONS EFFICIENCY

Achieve organizational excellence by implementing business practices that enhance efficiency, staff satisfaction, and economic vitality.

Apex residents recognize that as the town continues to grow, there is a need for additional staff, resources, and a desire to be competitive with other recreation providers in the area.

› Streamline recreation program management through best practices, tracking, and fees policy updates.
› Achieve operations efficiency through sound maintenance and management practices.
› Invest in staffing resources and staff satisfaction to achieve departmental operations efficiency.
› Seek strategic partnerships with third party providers to expand Department's capacity to provide competitive services.
› Implement capital improvements and operations through responsible funding sources.

CUSTOMER SERVICE

Provide outstanding customer service through streamlined communication and marketing efforts.

Apex residents consider PRCR staff an asset to the community for excellent customer service. PRCR staff indicated the desire for streamlined marketing efforts, enhanced online presence, and staff empowerment to excel in customer service.

› Provide high quality customer service through enhanced communication and outreach.
› Establish a volunteer program to engage residents in parks and recreation services and develop a sense of ownership within the community.

Implementation

This plan sets forth implementation guidelines for use as a decision-making tool for staff and elected officials. This approach informs and validates decisions through data and community values, leading to defendable and high performing projects implemented through consensus among stakeholders.

› **Guiding Principles Compatibility**
› **Community Needs**
› **Parks System Advancement**
   › Degree of Urgency
   › Economic Impact
   › Compatibility with Town policies and planning efforts including Advance Apex

PRIORITIZATION CRITERIA

The Master Plan for Apex's Parks, Recreation and Cultural Resources, Greenways, and Open Space aims to expand the opportunities for parks and recreation amenities and programming for the Apex community. Through a reality-based planning approach, the plan balances the current needs and desires of the residents with visionary and aspirational goals.

As the Town continues to grow, it must proactively plan to ensure the needs of the community will be met. Strategic planning that involves appropriate staffing allocation, funding resources, and effective business decisions will be required to implement the recommendations and action items suggested in this plan. Secondly, it will require systematic and regular assessment of current recreation provision, asset management, and management practices to ensure Department's sound operations. Thirdly, the Department will need to continue to collaborate with other Town departments, adjacent jurisdictions, Wake County, local businesses, special interests groups, and third-party recreation providers. Above all, the Department will require focus on its aspirational goals which will be achieved through visionary decisions, innovative actions, and measured risk-taking to support its motto 'The Peak of Good Living.'

APEX 2033

## SNEAK PEEK AT TOWN OF APEX'S FUTURE PARKS SYSTEM TRANSFORMATIVE PROJECTS

	GUIDING PRINCIPLE	TRANSFORMATIVE PROJECTS
EXPAND	CONNECTIVITY	› Start Design Development on the three recommended prioritized corridors. › Complete Beaver Creek Corridor. › Continue partnership with Wake County and Town of Holly Springs to complete Middle Creek Greenway Corridor.
	RECREATION OFFERINGS	› Complete master plans for two new parks in western Apex and start construction. › Complete plans for 2- recreation centers and the nature center and start construction on at least one. › Acquire parkland per Veridea Park Master Plan for a new park and a recreation center in SE Apex.
	CULTURE OF BELONGING	› Update fees and charges policy for programs and include need-based component. › Update Kelly Road Park playground as inclusive play area.
	ENVIRONMENTAL STEWARDSHIP	› Establish Department goals for sustainability within the framework of Town-wide initiatives.
EXPERIENCE	HEALTH + WELL-BEING	› Develop options for in-person and online health and fitness programs. › Promote park amenities that encourage active lifestyles.
	SENSE OF COMMUNITY	› Complete renovations of Depot Plaza as downtown social hub destination.
	UNIQUE TO APEX	› Complete renovations of historic Tunstall House. › Develop town-wide Public Art Plan.
EXCEL	OPERATIONS EFFICIENCY	› Develop formal volunteer program for PRCR Department.
	CUSTOMER SERVICE	› Develop Marketing Plan.

01 | INTRODUCTION

IN THIS CHAPTER
Project Overview
Planning Purpose and Process
Plan Content
Community Context
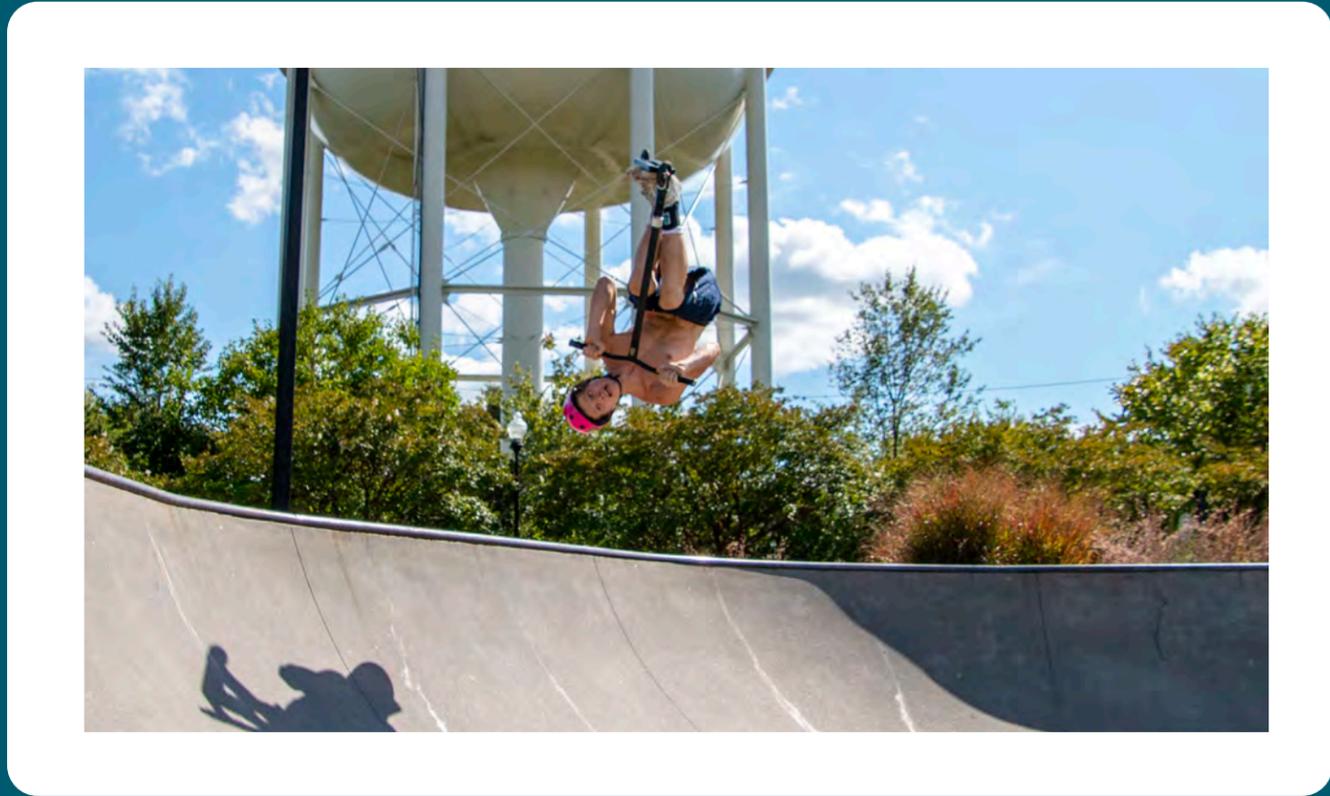
Whether playing on the playground at Clairmont Park, enjoying the thrill of Rodgers Family Skate Plaza, exploring the arts and crafts from local artists at Peakfest, or just strolling along the lakeside trail at the Community Park, the Town of Apex's Parks, Recreation and Cultural Resources offerings fosters community pride - Residents greatly appreciate the experiences the well-maintained parks, greenways, and facilities provide. The recreation facilities, cultural resource offerings, along with the evolving greenway system establishes opportunities for residents to enjoy the outdoors, expand cultural knowledge, and connect with nature and others in the community. The diversity of recreation programs inspire residents to stay active and support the physical and mental health benefits. The special events and programs bring the community together and strengthen the community cohesion.

In the recent years, Apex's population has grown at a tremendous rate, demographic composition has changed, and new recreation trends have emerged. The residents are committed to the protection of natural resources, and there is an increased focus on equity and inclusion. Several recommendations from the 2013 Parks, Recreation, Greenways, and Open Space Plan have been implemented and the Apex community is looking forward to updating this vision and establishing a new road map and priorities that respond to establish new vision and priorities that respond to the current needs as well as the future physical, social, and economic opportunities.

Figure 1.2 - *Youth Program*

OVERVIEW

Boasting on its tagline *"The Peak of Good Living"*, the Town of Apex is known for its heritage as a historic railroad station and while considered a rapidly growing community in the southwestern Wake County, it has successfully managed the charm of a small town. As with other larger municipalities in the Wake County, Town of Apex is experiencing a development boom, bringing in welcome benefits such as economic growth, employment opportunities, social diversity and many more. The Town has received many awards and accolades over the past decade that underscores its attractiveness to new residents. In 2019, the Town was ranked number one for Housing Construction Permits per Capita[1]. In 2018, it ranked number one as the fastest growing suburb and in 2015 Time/ Money Magazine ranked it number one for best places to live in America. These accomplishments are result of the committed staff, elected officials, and involved residents.

Growth also brings challenges for the municipality to maintain quality of life for its residents, provide excellent services, and satisfy the needs and wants of growing population. Over the years, Town of Apex has successfully managed these challenges through regular planning efforts and updates. Most recently, the Town adopted several planning updates:

- Advance Apex 2045 Transportation Plan
- 2045 Land Use Map Update
- Bike Apex
- Apex Downtown Master Plan and Parking Study

This Parks, Recreation, Greenways, and Open Space Master Plan (PRGOS Plan) stands on the foundation laid by the 2013 Apex Parks, Recreation, Greenways, and Open Space Master Plan. Assessment of changing needs of the Apex community and evolving recreation trends will help guide the vision for 21st century parks system while preserving the small-town community feel that Apex's residents love.

The Apex Parks, Recreation and Cultural Resources Department provides excellent parks, facilities and recreation services to the community, contributing to the quality of life. Diverse amenities, recreation programming, and special events are not only popular with residents, but also draw visitors across the Triangle region. Some of the noteworthy accomplishments of the Apex Parks, Recreation and Cultural Resources (PRCR) Department since the 2013 plan include:

- Acquisition of future parkland – 30+ acres Wimberly Road Parkland and 22+ acres Olive Farm Parkland

- Upgrades to Salem Pond Park including field lighting, synthetic turf field conversion, Frog Pond Playground, Environmental education, and Restroom

- Passing 2017 Parks Bond with 76% approval rating and tax increase

- Over 19 miles of greenway system expansion

- Teen amenity spaces expansion
  - Rodgers Family Skate Plaza
  - Elevate Fitness Course

- Pleasant Park as destination park facility

- Senior Center (Opened in 2021)

- Awarded Bee City USA status in 2019 – Native Pollinator Demonstration Garden at Apex Nature Park, 2021

- Full Time Parks Planner position addition

- Funding partnerships:
  - LAPP- $1M+ for Beaver Creek Greenway Kelly Road Nature Park
  - Wake County- $1.5M Middle Creek Greenway Sunset Lake Rd to Colby Case Rd
  - Wake County $500K Hotel Motel tax for Pleasant Park
  - Wake County - $150K Apex West Greenway connection to ATT
  - State of North Carolina Revitalization and Economic Development- $100,000 for Senior Center

- Established Public Art Program and Committee (Mural at Public Works 2020, Downtown Sculpture Walk 2021)

- Improvements at Nature Park Amphitheater increasing lawn seating area by 50% indirectly leading to new programs such as Outdoor Theater and expanded concert and movie offerings.

- New coordination of Apex Music Fest 2019, attendance estimated at 5,000 (Directly oversee or coordinate with many festivals/large events to include: Peak Fest, Latino Festival, Russian Festival, Film Festival, Touch a Truck, Turkey Trot 5K, Easter Egg Hunt, 4th of July, etc)

- Set up the Active CUI (Customer User Interface) so that customers can now register from their phones and Ipads, not just by computers.

- Added the "pay online" option for customers who wish to purchase memberships and passes and do not wish to come in to visit in person.

- Hosted the Presidential Early Voting and Election day for a large geographic area in Wake County in cooperation with the Wake County Board of Elections.

- Migrated most staff to a laptop option thereby providing the option to work from home if needed

- Migrated LSE (Part-time) staff to the Executime Payroll App which saves supervisors man hours of processing paper timesheets.

- In cooperation with the Finance Department, changed the check deposit process to an in-house scanning bank option thereby saving the Town money related to armored truck pickup and delivery fees.

- Cooperated with the ADA inspection of our facilities to ensure that all TOA facilities are in strict compliance with all ADA guides and regulations Special Needs programs/special events started includes Flashlight Egg Hunt, Bingo, Abilities Tennis, Spirit League Basketball, Fishing Derby, different dances, etc.

- Full day Summer Camp

- Implemented half-day Tennis Camp

- Athletic clinics added includes girls' lacrosse, softball pitching

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[1]   https://apexeconomicdevelopment.org/921/Accolades

PLANNING PURPOSE AND PROCESS

Comprehensive planning provides the information a town requires to make informed, equitable and responsible decisions for meeting community needs. Comprehensive planning provides a structure for evaluating needs and setting priorities. The planning process captures the status of the Department at a moment in time, creates a vision for the future and identifies steps to achieve that vision. The plan guides the Department's decisions and priorities for the next 10 years. The comprehensive plan offers following benefits to the Department, elected officials, and residents:

catalog community needs and wants	engage community, staff, stake holders and decision makers	benchmark against other agencies to inform department goals
identify and resolve gaps and deficiencies	generate population-based goals for new parkland, trails and more	validate decisions related to parks and recreation
create a 10-year work plan for department staff	prioritize goals for a 10-year planning horizon	qualify for State and Federal grant funding opportunities

Figure 1.3 - *Benefits of Parks and Recreation Comprehensive Planning*

This master plan will:

› Replace the 2013 PRGOS Master Plan for the 2022–2032 planning horizon
› Develop the parks system recommendations in unison with other recent planning efforts and rooted in community values
› Define the role that the parks system will play in the future of Town of Apex
› Develop a resource for officials and the public to understand current park and facility offerings and learn about the future direction of the Department
› Provide a framework for the PRCR Department to address the Town's rapid growth
› Guide improvements to parkland and facilities, programming, operations and maintenance, finance and budget and greenways
› Accommodate additional demand new residents generate while evolving to meet emerging recreation trends
› Develop the action and implementation plan to aid the decision makers with a framework to guide, validate and prioritize project implementation.
› Qualify to access certain state and national funding sources required to improve and expand the system;

Plan Context

This plan is grounded in the robust community and staff engagement findings and data-driven recommendations. From the initial inventory and analysis through the recommendations and action and implementation plan, the team engaged elected officials, stakeholders, special interest focus groups, and acknowledged local, regional and national recreation needs and trends, demographic shifts and agency performance. The project team studied current facilities and programs to evaluate the overall operational successes and challenges of the Department and its mission. Finally, the project team alongside the Department staff developed a set of guiding principles that prioritize recommendations to improve recreational offerings and meet expectations of a growing community. This 2022 Master Plan includes the following components:

The project team inventories analyzes and organizes data to identify recreation trends, gaps, needs, and community values. **EXPLORE**	Town staff in collaboration with project team creates a vision for the future and defines the mission to achieve it. **ENVISION**
IMPLEMENT The project team creates a detailed action plan for the next ten years.	**RECOMMEND** The project team develops series of recommendations for the Department to achieve their vision.

Figure 1.4 - *Project Process Summary*

Introduction

The project team reviewed the past planning efforts of the Town's PRCR Department to understand the planning context and the Department's evolution. The past planning efforts provide a comprehensive understanding of the recommendations that guide the growth and development of the Town. It is the goal of this plan that the recommendations presented herein will be seamlessly integrated with the other Town plans.

Demographics and Trends

The project team completed a demographic and trends analysis to draw conclusions about current and future recreation trends and participation levels as it relates to Apex's unique community composition.

Inventory and Analyses

The inventory and analyses take a full account of the existing parks, recreation, open space, and greenways system. Parkland and facilities, programming, arts and culture, operations and maintenance, finance and budget, and greenways system were inventoried and analyzed to inform the needs for enhancing the current services the Department provides and identify the gaps for future recommendations.

Community Engagement

Through the public engagement process, the project team gathered input from the staff, focus groups and the community. The process was designed to be transparent, equitable and engaged the widest range of residents possible. The engagement plan consisted of the following elements:

› Two public meetings
› Four focus group meetings
› Two special events
› Statistically valid survey
› Community-wide online questionnaire survey
› Presentations at the Advisory Commission and Town Council meetings

Vision and Guiding Principles

Visioning allows the Department to develop a future direction for the department and each of its component parts. Guiding principles are developed based on community engagement and information gathered through the research and inventory and analysis process. The visioning session validates the guiding principles that inform the creation of recommendations. Each of this plan's recommendations and action items serveto achieve this vision.

Benchmarking and Level of Service

Benchmarking and level of service evaluate current and future needs for park acreage, greenways mileage, and operational standards compared to national standards and best practices. These metrics are population based to allow the department to meet future demand for parks and recreation services. The level of service standard includes current and future standards for parkland, facilities and greenways.

Benchmarking communities provides a comparison for the existing state of the Department's amenities and informs level of service standards for the ten-year planning horizon. Metrics for parks, greenways, parkland acreage, staffing and budget are compared with the National Recreation and Parks Association's Parks Metrics Standards annual report which informs the development of an appropriate level of service standard specific to the Town. Such standards are normalized by population so target metrics can evolve to meet demands of the growing community.

Recommendations and Action + Implementation Plan

The recommendations and prioritized implementation plan provide a framework to guide park, facility, open space, greenways, programming, and operational improvements for the future. It is structured to guide decision making for Department's policy. Each recommendation is further prioritized as short term (1-3 years), mid-term (3-7 years) or long-term (7-10+). Criteria for recommendation prioritization vary based on the context and criteria may range from land availability to financial implications but are firmly rooted in community values established early in the process.
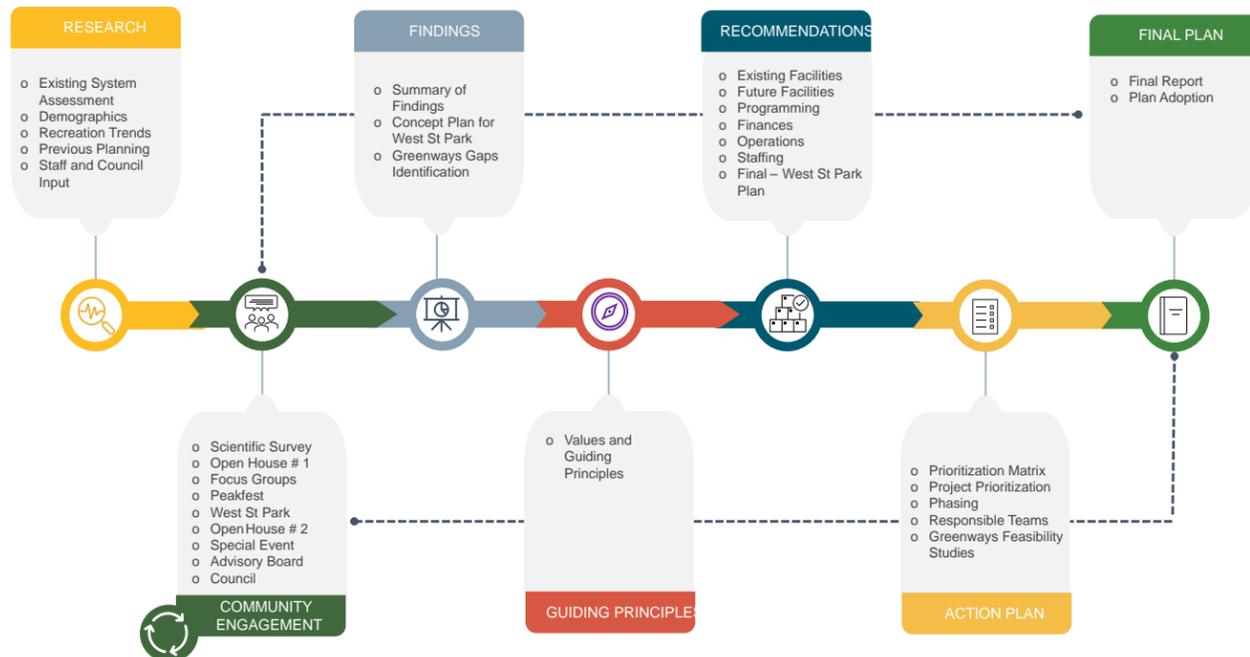

Figure 1.5 - *Project Process*

COMMUNITY CONTEXT

Historic Context[2]

In the precolonial era, the Town's area was inhabited by the Tuscarora tribe of Native Americans. Town of Apex was established as a railroad station on the Chatham Railroad line in 1854 resulting in settlers moving to this area. It was incorporated in 1873. Initially known as the Log Pond[3], the Town was renamed Town of Apex, aptly to signify its location as the highest point on the rail line.

Commercial development and businesses were set up around the railroad station and the forest land was cleared to make way for farmland for growing tobacco. The two devastating fire events resulted in complete rebuilding of the business district along Salem Street[4]. Union Depot, the signature historic building in the Downtown Apex was built in 1914. As the tobacco industry declined, the Town's growth almost ceased till 1960s, when employment opportunities in the Research Triangle Park drove people to the area. Town of Apex saw unprecedented growth during 1990s as other communities in the Triangle area.

The downtown district was designated National Historic Register status for significant historic architecture and community development recognizing 1900-1959 as the period of significance.

1854 Railroad Station

1860's Settlers Arrive

1873 Town Incorporated

1867-73 Depot Built

1911 Second Fire

1912 Town Hall Built

1913-14 Salem St Area Built

1994 Historic Distric Designation
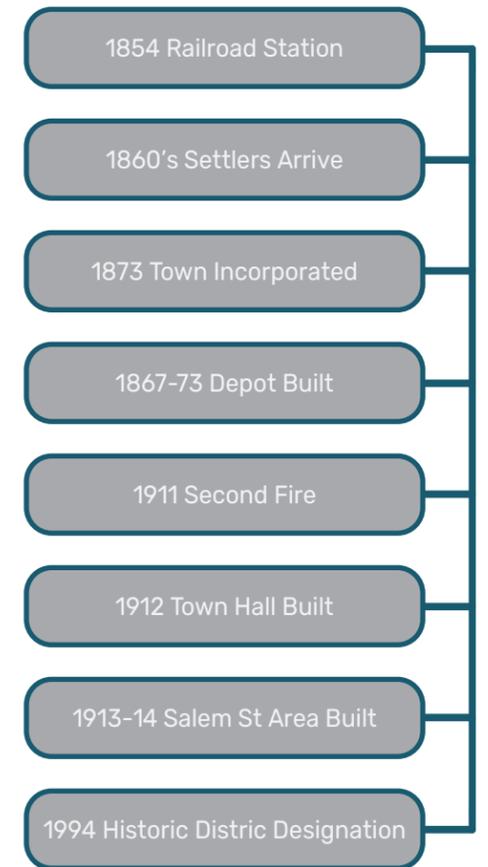
Figure 1.6 - *Historic Timeline*

Figure 1.7 - *Historic Salem Street*

2   https://northcarolinahistory.org/encyclopedia/town-of-apex/

3   http://apexhistoricalsociety.com/

4   https://apex.suburbanlivingmag.com/preserving-the-past-the-history-of-apex-by-lindsey-fano/

Regional Context

The Town of Apex occupies a portion of southwestern Wake County. It is approximately 26 square miles with a density of 4.53 persons per acre5. The Town is bordered by the Town of Cary to the north and east, Town of Holly Springs to the south, and Chatham County to the west.

Its proximity to larger cities such as Durham and Raleigh, the employment hub of Research Triangle Park, the RDU airport, multiple universities, and connectivity to the greater region via NC 540 Toll Road, Highway 55, US Highway 64, and US Highway 1 have contributed significantly to its growth and popularity as a residential community. The expansion of industrial and life science based employment centers along with the high standard of Wake County schools, many choices for private and charter schools within Town limits, nearby continuing and advanced degrees opportunities all combine in offering a high quality of life for residents and a lucrative place for businesses.

With its historic beginning as a critical stop on the rail line, the Town has seen well balanced growth from its core. Development that began in the core with higher densities has shifted to the perimeter of the extraterritorial jurisdiction (ETJ) and started to expand the Town's footprint through the annexation of larger lot subdivisions and family farms within Wake County. This pattern of growth, typical of suburban communities, has resulted in concentration of smaller parks within the Town core and larger parks away from downtown that accommodate bigger recreational facilities.

Town of Apex is located in the Piedmont Ecoregion of North Carolina, which is characterized by undulating topography and long lengths of gently sloping valleys and ridges. Apex lies along the ridge between the Cape Fear and Neuse River Basins with the majority of Apex land area located in the Cape Fear River Basin. A significant portion of the Apex corporate limits drains to the Jordan Lake reservoir. Apex's landscape is typical of North Carolina's classic Piedmont ecoregion attributed to successional and scrub-shrub habitat with low, woody vegetation and herbaceous plants and periodic disturbances that result in dense understory vegetation. The landform includes rock outcrops, streams, wetlands, and woodlands, where wildlife consisting of amphibians, reptiles and birds are found flourishing.

As the town boundaries continued to expand, Apex's landscape changed from forested land to tobacco fields and horse farms, and in the recent decades to predominantly suburban residential developments. Through the development years, Apex has successfully conserved and protected some of the major stream corridors such as Middle Creek and Beaver Creek corridors that support a rich variety of habitats, including mature forest, wetlands, floodplains, beaver ponds, and wetlands. Greenway trails opportunities along these corridors provide residents the unique opportunity to experience upland forests reminiscent of the mountains, the forested floodplain and wetlands, typical of the Coastal Plain, and the diversity of wildlife that thrives in this ecoregion.
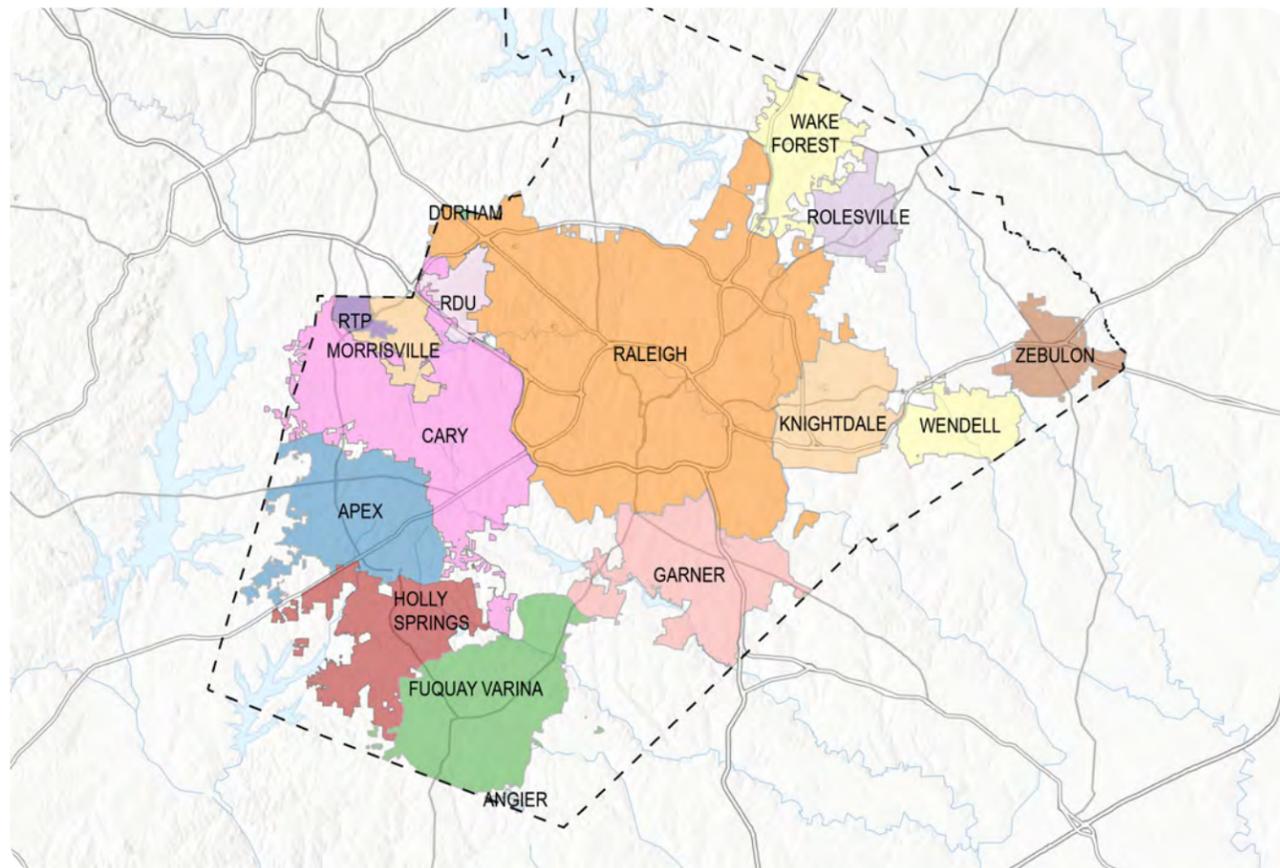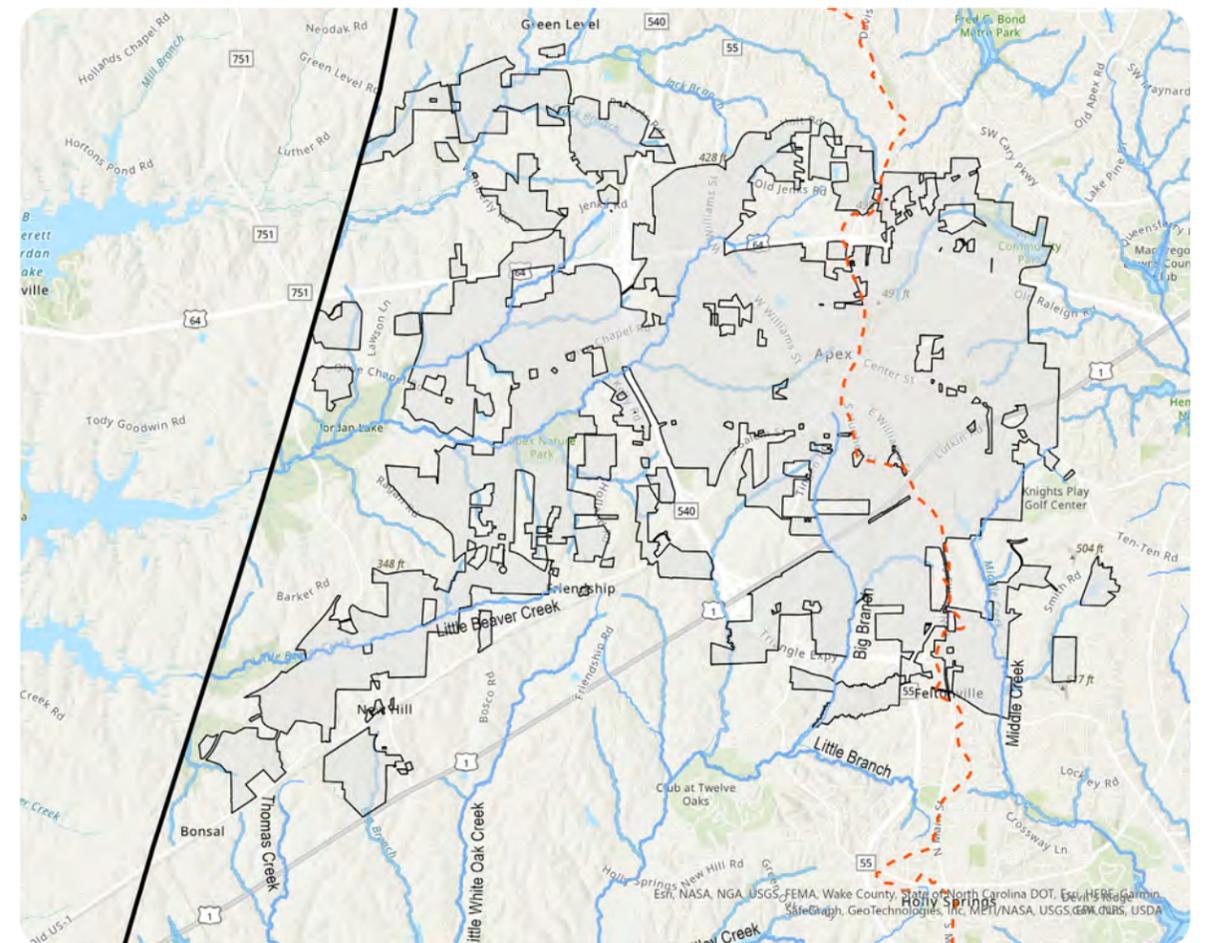

Figure 1.8 - *Wake County Jurisdictions*

Ecology

Figure 1.9 - *Hydrology Image*

In the recent years, the Town has specifically directed its efforts to protect the natural resources that are still unaltered while also encouraging development that is environmentally sustainable and ecologically designed. The latest Advance Apex: The 2045 Land Use Map Update focuses on protecting buffers around Jordan Lake, floodplains, and other natural lands as low-density rural residential zoning, where there is only 1 dwelling unit per 5 acres. Additionally, the Town conducted an urban tree canopy study in 2018, to document the role that trees play in stormwater management which showed ways the Town can benefit from tree conservation and replanting. It also evaluated ways for the town to improve forest management.[5]

Planning Context

Town-wide areas of growth, current planning documents, and development ordinances all form the planning context in which this plan was developed. This comprehensive plan is responsive to the existing policies, Town-wide planning efforts and regional growth patterns that influence Apex's growth now and in the future.

According to the Apex Development Report from October 2022, the town had 4,147 residential units and 230 mixed use development projects under construction as well as eight commercial projects completed in FY2022-23, with 1.28M sq. ft. under construction.

RELATED PLANNING DOCUMENTS

The following represents a summary of planning documents that guide growth and development throughout Town.

Related Codes + Ordinances

Development of new parkland must adhere to the policies of the jurisdiction as outlined in the Unified Development Ordinance (UDO). The Town of Apex has created development standards for open space and landscape to ensure desired development and use of parks and recreation facilities. Well written policy requiring exactions related to open space dedication or the development of recreation facilities has the potential to influence the level of service and recreational opportunities available to Town residents.

Figure 1.10 - *Amphitheater at Nature Park*

5   https://www.apexnc.org/1274/Urban-Tree-Canopy-Study

Adopted February 2019

Advance Apex 2045 Transportation Plan

The 2045 Transportation Plan establishes a vision for the transportation network in Apex. Adopted in 2019, the plan came in response to the opening of three new Wake County public schools in Apex, completion of the Apex Peakway, and NC 540. The plan was developed in conjunction with the Town's future land use map update, to serve as a framework for future infrastructure investment as well as policy and program development for a rapidly growing town. Planning themes identified include downtown experience, sense of place, integrated growth, mobility and connectivity; safety, and quality of life.

Adopted February 2019

Advance Apex 2045 Land Use Map Update

This plan is an update to the Town's Comprehensive Plan, Peak Plan 2030. It was developed in conjunction with the Advance Apex 2045 Transportation Plan, collectively known as Advance Apex. The 2045 Land Use Map establishes the future development of the town; identifies needs, and guides growth in response to existing drivers and trends. The plan focuses on walkable, pedestrian oriented development and connectivity to recreation components mentioned for Mixed Use Activity Centers.

Adopted January 2019

Bike Apex

Bike Apex provides recommendations and implementation plan for a safe and well-connected bicycle network within Apex, with connections to surrounding communities. It identifies bicycling as a tool for improvements in mobility, safety, health, economy, environment, and overall quality of life,
These ideas resonate with the benefits parks, recreation, greenways and open space have on the Town of Apex.

Apex Downtown Master Plan and Parking Study

Apex residents consider downtown area as a point of pride downtown area is a point of pride. To ensure future enhancements to downtown reflect the wants and needs of the public, the Town of Apex commissioned a plan to establish a vision and develop policy recommendations to guide downtown revitalization for a 20-year planning horizon. The plan places a strong focus on re-imagining and activating spaces for people to gather and for positioning activities, and programs. Specifically, the downtown master plan recommends re-purposing the historic depot area into Depot Plaza, with amenities like water-based play, a farmers market pavilion, and an ice-skating rink . The plan includes recommendations to activate downtown space by including programs such as PopUp Providence as a means of providing social interactions, access to local arts and culture, and play opportunities.

Adopted December 2019

Adopted July 2013

Peak Plan 2030
The purpose of this plan was to guide system wide development across the Town of Apex. In consideration of the exceptional growth Apex has experienced over a period of only 25 years it was necessary to identify challenges and opportunities to establish proactive solutions. As it pertains to parks, recreation, open space and cultural resources, the plan recommends expanding greenway connectivity dedicating a multi-use public space downtown; investing in wayfinding signage; placing high value on cultural resources; and encouraging ecologically sustainable and functional landscapes.

Adopted June 2013

Apex Parks, Recreation, Greenways and Open Space Master Plan
The community engagement process held while developing the 2013 plan revealed top priorities for recreational facilities, including a dog park, skate park, amphitheater, and active recreation spaces. Recommendations were incorporated into four action item categories that included facilities, programs, greenways, and land acquisition. The plan recommended developing a prioritization framework for facility and recreation program based on determining immediate (0-2), near-term (3-5 years), and long-term (5-7 years) needs. The current plan will take a closer examination of the Town's efforts since 2013 to make recommendations for the next ten years.

Apex's UDO was developed for the general purpose of promoting and protecting the public health, safety, peace, comfort, and general welfare of the citizens and residents of Apex and its extraterritorial jurisdiction (ETJ). It is a comprehensive, unified set of regulations that govern the subdivision of land, the development of land, and the use of land. It is specific to the particular purposes of implementing 2045 Land Use Map policies, protecting small-town character, promoting good planning practices, preventing adverse environmental impacts, using land and public services efficiently, promoting alternative land development practices, discouraging sprawl, and encouraging mixed-use development and interconnectivity.

Article 14 addresses Parks, Recreation, and Open Space Sites, and concentrates first on land dedication. The open space dedication defines a metric of minimum open space area required as a percentage of the development site area and development type. Outside of few exemptions, under the current UDO residential developers agree to dedicate a portion of land for the purpose of providing park, recreation, or open space sites to serve future residents of the subdivision; or make provisions for an equitable amount of land to be dedicated in another location or pay a fee-in-lieu of dedication. Article 14 describes the standards that land being dedicated for recreation and park development must meet, defines the procedure for determining applicable open space dedication, outlines how size of area required for dedicationand how fee-in-lieu is computed.

02 | DEMOGRAPHICS + TRENDS

IN THIS CHAPTER
Data Sources
Estimates + Projections
Tapestry Segmentation
Trends in Parks and Recreation

A detailed and accurate understanding of a community's demographics is a critical component of a successful long-range plan. Continual population growth and change drive several of this plan's goals and recommendations, providing a roadmap to keep Apex's Parks, Recreation & Cultural Resources offerings at pace with the evolving demand.

The demographic analysis adds nuance to the variable of population growth. Within a growing population, the demographic traits of the population are likely to shift over time. Age groups, races, and income levels segmentation are all likely to shift as a population grows and demographics shifts. These shifts can change the need for the types of recreational facilities and programs that best serve the community.

Trends in recreational preferences change continuously, which sparks ongoing changes in demand for new activities and programming. Even when demographic factors remain the same, changing preferences and trends influence the demand for parks and recreation programs and facilities.

This chapter provides a summary of the Town of Apex's demographic characteristics and summarizes the Town's future population projections through 2031. This quantitative analysis contextualizes Apex's future needs for parks, greenways, recreation, and cultural programming based on demographic and market research data.

Included in this analysis is an overview of current demographics and population growth projections, for the 10-year planning horizon, and a summary of national and local trends. The combination of these two sets of data provides the framework for recommendations that target the current and future population and align with trends in recreation.

Figure 2.1 – *Downtown Apex*

DATA SOURCES

This analysis draws data from the U.S. Census Bureau (USCB), the Bureau of Labor Statistics (BLS), and the Environmental Systems Research Institute (ESRI). ESRI an international supplier of geographic information system software, web GIS and geodatabase management. ESRI uses data from the US Census Bureau, the Internal Revenue Service (IRS), and high-quality local sources.

Components of this analysis, including population projections, are sourced from ESRI. ESRI uses proprietary methodology for creating a current population estimate and a five-year population projection estimate. ESRI uses data from the USCB, IRS, and high-quality local sources. ESRI data is available at Census Blocks level, which are specially tailored to estimating demographic characteristics of small areas. ESRI encourages use of their data in conjunction with other sources of data, saying "ESRI revises its forecasts annually to draw from the latest data. However, this data can be enhanced with personal knowledge of an area to provide the qualitative, anecdotal detail that in not capture in a national database. It is incumbent on the data users and producers to incorporate as much information as possible when assessing local trends."

Data obtained from the USCB is the foundation of this demographic analysis. Census data is the most comprehensive and accurate data collected in the United States. Census data includes data gathered from the Decennial Census of Population and Housing, conducted every 10 years, and the American Community Survey, conducted on an ongoing basis and reported every five years. In this chapter, the analysis for geographic mobility and special populations is summarized from Census Data. In all other cases, data is collected and synthesized using a variety of demographic analysis methods to inform current and future demographic characteristics.

Data obtained from the BLS is used to assess employment levels in the community, including data on employment and unemployment rate.

ESTIMATES AND PROJECTIONS

Estimates and projections are the core of demographic analysis. Estimates provide a summary of an area's current population or demographics characteristics at a given point in time. Projections are proposed for a potential future scenario such as population, based on certain assumptions such as a consistent growth rate or expected increase in migration.

Average Annual Growth

Average annual growth is a measure for determining the rate of growth per year over a given period. The average annual growth rate is useful for showing the rate at which population growth is occurring per year, when population estimate data available spans a multi-year period. An indication of past growth can be used to form the basis for projecting the population for a future year. Data obtained from USCB and ESRI indicates the Town's average annual growth rate is 2.72 percent.

TOWN OF APEX	NORTH CAROLINA	UNITED STATES
2.72%	0.95%	0.7%

Figure 2.3 - *Average annual growth*

Figure 2.2 - *Peakfest*

Figure 2.4 - *Downtown Apex*

Population Projections[1]

This report uses stacked bar charts to display changes in demographic characteristics over time. These charts use ESRI's analysis of demographic characteristics of Apex, which provides an understanding of overall population growth as well as expected changes in subsections of age, race, and household income. ESRI's analysis estimates data for 2021 and makes a projection for 2026. To develop the population proportions of demographic trends through 2031, this analysis calculates the average annual growth rate for each demographic segment between 2021 and 2026 and uses that to make projections for each population segment through 2031.

POPULATION 2021	POPULATION 2031
62,689	81,986

Figure 2.5 - *Population Projections*

Figure 2.6 - *Population Projection for the Town of Apex through 2031 (Sources: American Community Survey, 2020 Census, ESRI Community Profile)*

1   Town of Apex continuously updates the population data and projections as part of the monthly Development Report. According to this report, there is some discrepancy in the 2016-2020 American Community Survey data and the Town's internal projections. The population numbers used in this report are based on available census data and not Town's internal estimates. Population projections used for this report should be considered a snapshot in time when the report was written (April 2022). Municipalities undergo changes constantly over the course of a planning project that can have an impact on population numbers. These numbers aren't intended to be absolutes and are rather meant to provide an insight into a general population size and the magnitude of change over time. The plan recommendations will not be solely rooted in these numbers in recognition of the fact that getting a correct number is not possible.

Age Segment

Figure 2.7 presents the changing proportions of the age cohorts based on population estimates and projections from 2021 through 2031. The proportional charts show youth population proportions decreasing by 1.8% while slight upward increase in age segment between the ages of 25 and 34 as well as over the age of 55. All other segments experienced a flattened or downward trend in share of population. The median age in 2021 in the Town of Apex was 36.2, compared to 38.3 for North Carolina and 38.1 for the United States.

TOWN OF APEX	NORTH CAROLINA	UNITED STATES
36.2	38.3	38.1

Figure 2.7 - *Age Segment*

Figure 2.8 - *Age Segmentation projections through 2031 (Source: ESRI Community Profile)*

Race and Ethnicity

Estimates show that currently, residents identifying as White Alone make up over 73 percent of the population. In the coming years this will shift as the populations of non-white individuals increases. As seen in Figure 2.9, the largest growth will be experienced in the portion of the population that identifies as Asian Alone with a projected increase of 2.6 percent of the total population to 14 percent.

While all other segments of the population other than White Alone are experiencing positive annual growth rates, those rates of growth are significantly smaller and are thus contributing to relatively static levels of population makeup. For example, the percent of the population of Hispanic Origin is experiencing a positive annual growth rate of 0.18 percent per year and will make up 7.7 percent of the population by 2031.
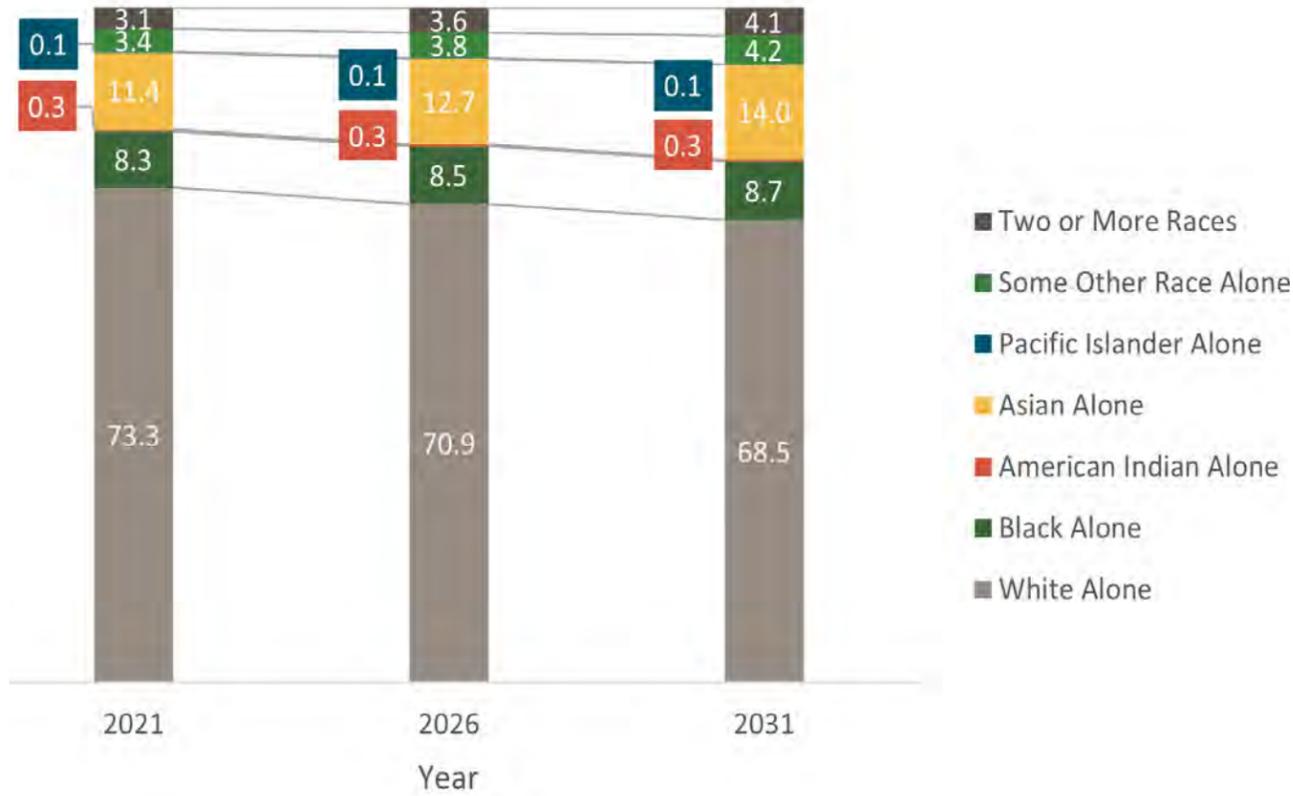
Figure 2.9 - *Racial Segmentation projections through 2031 (Source: ESRI Community Profile)*

Household Income

Figure 2.11 shows the proportional distribution of income for households in Apex. Currently, 59.5 percent of the population has a household income of over $100,000. By 2031 the percent of the population at or over that income level will increase to 71 percent. The percentage of the population making less than $75,000 is experiencing a marked decline, with households earning $75,000 or more but less than $100,000 experiencing a more moderate decline in share of population.

According to the ESRI Community Profile, the median household income in 2021 was $138,277, a figure that is projected to increase to $172,016 by 2031. This is more than double the median household income in for the US and three times that for North Carolina.

TOWN OF APEX	NORTH CAROLINA	UNITED STATES
$138,277	$54,602	$67,521

Figure 2.10 - *Household Income*
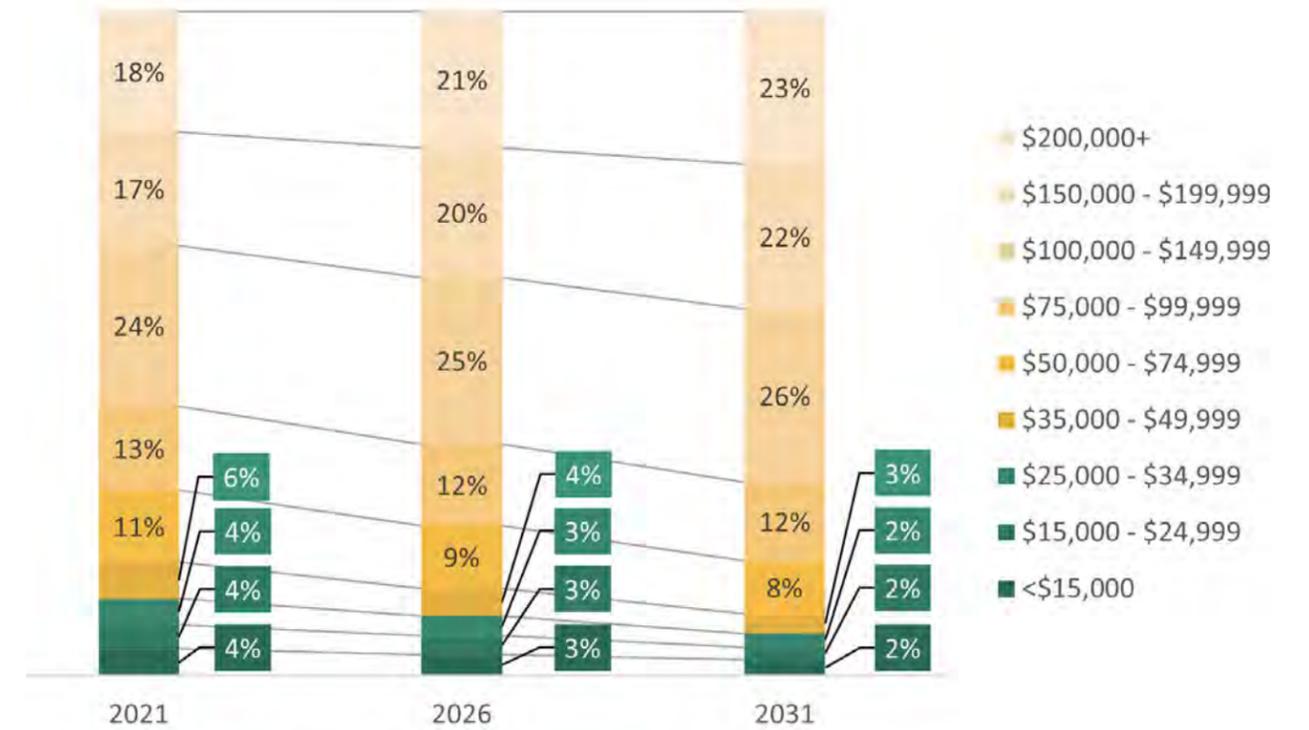
Figure 2.11 - *Household Income Segmentation projections through 2031 (Source: ESRI Community Profile)*

Education

The Town of Apex's population is a highly educated one. According to estimates for 2021, 74 percent of the population has attained some type of degree beyond a High School Diploma or equivalent. Almost 28 percent of the population has a degree beyond a Bachelor's. Only 3.9 percent of the population does not have a High School Diploma or equivalent.

Households with Children

Using estimates from the 2010 Census and 2019 American Community Survey, the percentage of households in Apex with children is seeing a declining trend. In 2010, 49.4 percent of households had children, while in 2019, 46.9 percent of households had children. Using projections based on this data, 43.6 percent of households will have children in 2031.

- ■ Less than 9th Grade
- ■ 9th - 12th Grade, No Diploma
- ■ High School Graduate
- ■ GED/Alternative Credential
- ■ Some College, No Degree
- ■ Associate Degree
- ■ Bachelor's Degree
- ■ Graduate/Professional Degree

Figure 2.12 - *Education Attainment in 2021 as percentage of population (Source: ESRI Community Profile)*
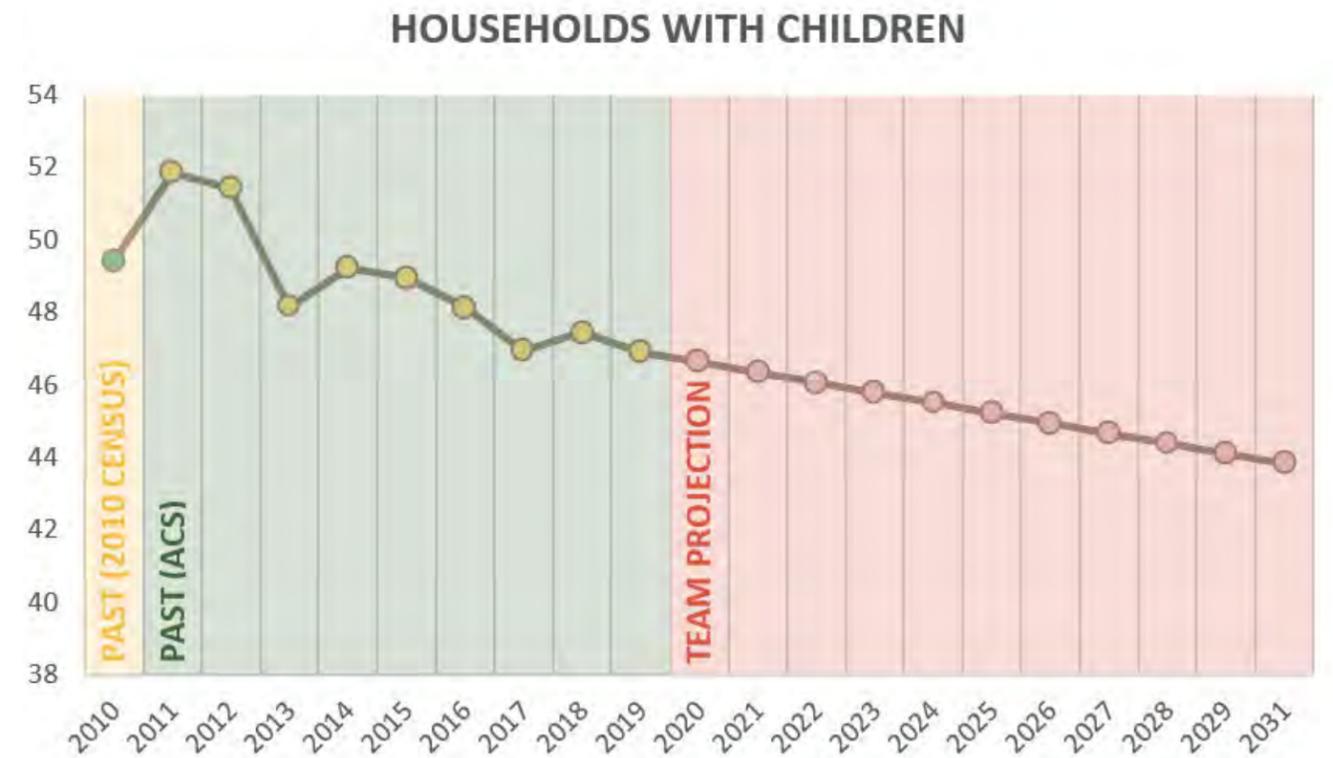
Figure 2.13 - *Percentage of Households with Children (Sources: US Census, American Community Survey)*

Housing Tenure and Geographic Mobility

Geographic mobility looks at the percentage of the population that lived in the same house they lived in the year prior or, if they do not live in the same house, where they moved from.

Looking at estimates for 2014-2019, the only years data is available for, housing tenure in Apex is high, averaging at 85% of individuals living in the same home they did the year prior. Among those moving into
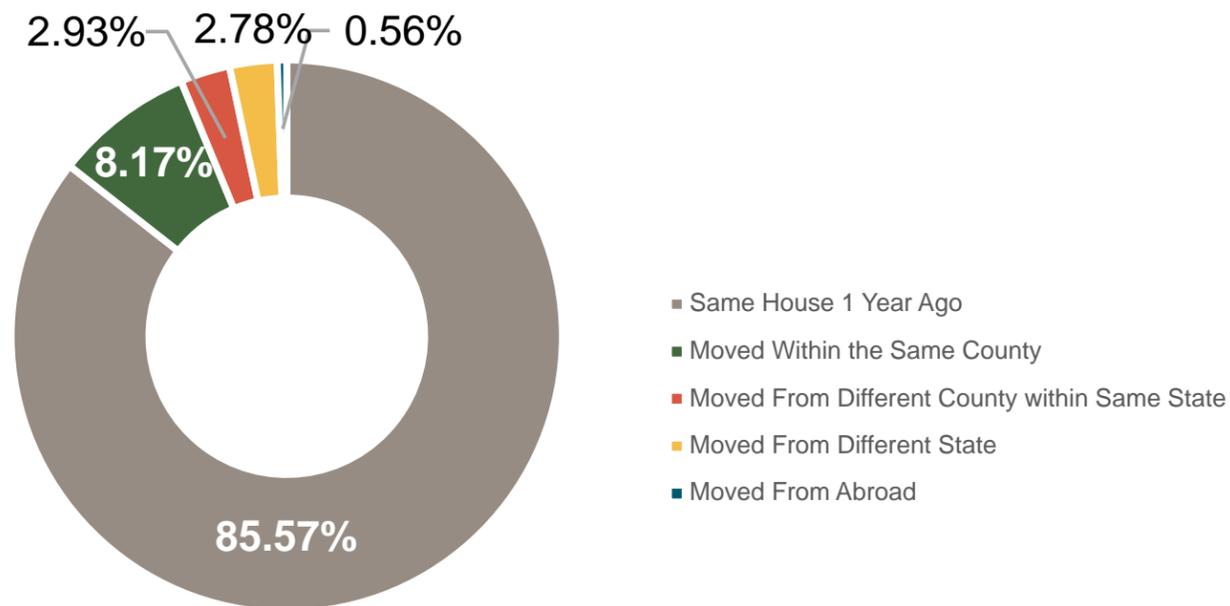
Figure 2.14 - *Residential Mobility for individuals in the Town of Apex. (Source: American Community Survey)*

the Town annually, most individuals (8 percent of the total population) are coming from within Wake County. Individuals moving from within North Carolina and from other states comprise an average of 2.9 and 2.7 percent of the population, respectively. Individuals moving from abroad comprise 0.6 percent of the total population.

Special Populations

Figure 2.15 shows the percentage of the overall population in the Town of Apex with a disability based on American Community Survey estimates. The 64-and-older age segment is experiencing the highest level of disability. The most common disability is an ambulatory difficulty which is defined as an impairment which prevents or impedes walking, followed by self-care difficulty and independent living difficulty. The under 18 population has the highest level of cognitive difficulty (aka Intellectual disability) which is when a person has certain limitations in mental functions and in skills such as communication, self-help, and social skills.
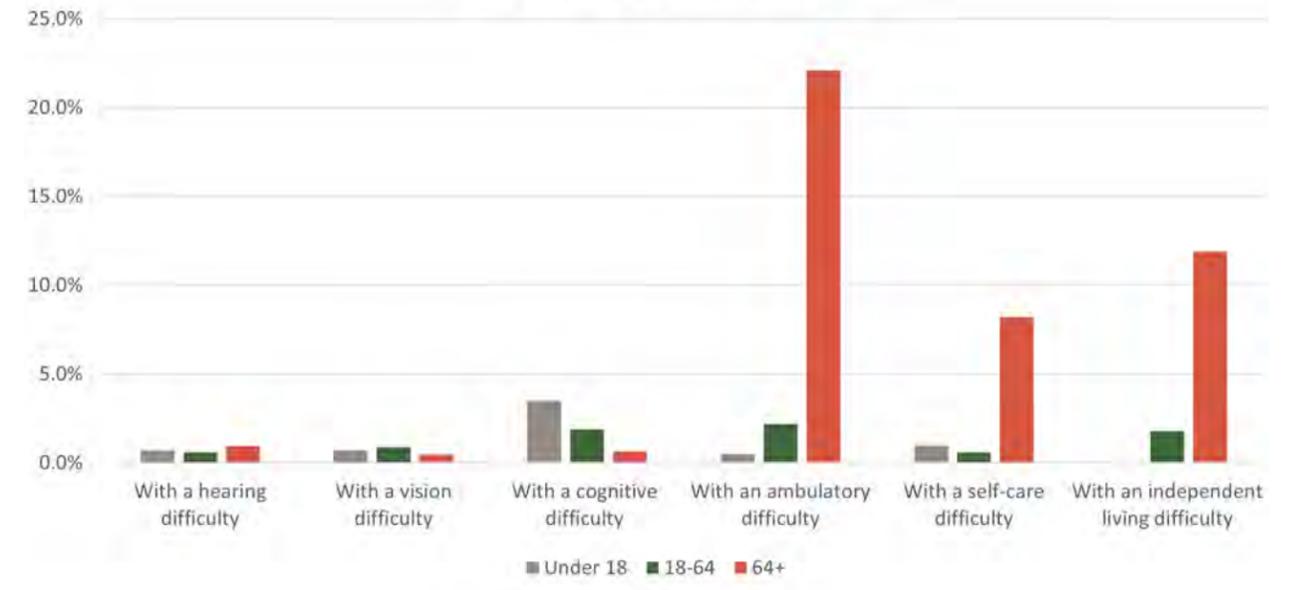
Figure 2.15 - *Special Populations in the Town of Apex. (Source: 2019 American Community Survey)*

TAPESTRY SEGMENTATION

Tapestry Segmentation is a demographic analysis methodology developed by ESRI to provide a fuller, more detailed description of America's neighborhoods that combines multiple demographic factors to identify unique consumer markets throughout the United States. Each of these tapestry segments, 67 in total, are meant to reflect shifts in established consumer markets and emergence of new markets due to population growth, demographic and socioeconomic change, and evolving consumer behavior.

The Tapestry Segmentation Analysis divides areas into distinct segments based on their socioeconomic and demographic composition. Neighborhoods with similar characteristics are grouped, and neighborhoods with divergent characteristics are separated into different segments.

The Tapestry Segmentation Analysis for the Town of Apex revealed ten Tapestry Segments in the community. The top five, which make up almost 85 percent of households, are highlighted and will be expanded upon below. The top ten, listed in order of prevalence among households, were:

> › Boomburbs *(52.6 percent)*
> › Up and Coming Families *(13.7 percent)*
> › Enterprising Professionals *(7.5 percent)*
> › Professional Pride *(6.2 percent)*
> › Bright Young Professionals *(4.8 percent)*
> › Green Acres *(4.7 percent)*
> › Savvy Suburbanites *(3.7 percent)*
> › Middleburg *(2.8 percent)*
> › Comfortable Empty Nesters *(2.7 percent)*
> › Workday Drive *(1.3 percent)*

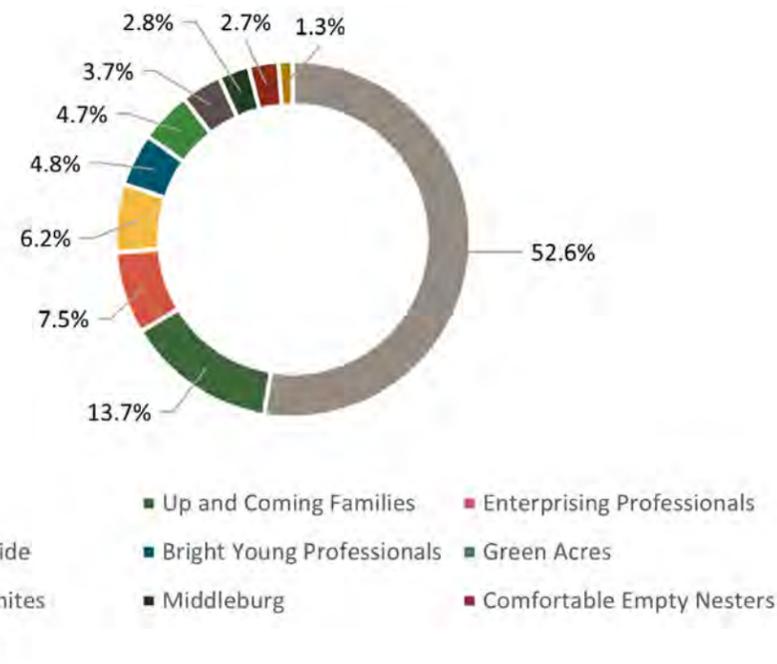Figure 2.16 - *Tapestry Segment groups in the Town of Apex. (Source: ESRI Tapestry Segmentation)*

Tapestry Segmentation - *Boomburbs*

ESRI describes Boomburbs as a new growth market comprising "young professionals with families that have opted to trade up to the newest housing in the suburbs. This market is an affluent one but has a higher overall proportion of mortgages. This group is experiencing rapid growth and tends to be comprised of well-educated professionals with a running start on prosperity." These individuals and neighborhoods are often suburban peripheries of larger metro areas and are overwhelmingly homeowners (84 percent). This group is majority white and has a median household income twice that of the United States. According to ERSI's Market Profile, Boomburbs are technologically savvy, being well educated and affluent lifemode groups.[2] They enjoy gardening, and physical fitness is a priority for them, with gym memberships or home equipment ownership. Leisure includes a range of activities from sports such as hiking, bicycling, swimming, and golf, to visits to theme parks or water parks.

Tapestry Segmentation - *Up and Coming Families*

ESRI describes Up and Coming Families as a traditional market that is undergoing a transition to a "younger and more mobile [population] than the previous generation." This market is one that was impacted by the recession (2008) but is rebounding. This group is experiencing rapid growth and is one of the fastest-growing markets in the country. These individuals and neighborhoods are often suburban peripheries and are primarily homeowners (74 percent) with a healthy population of renters (26 percent). This group is majority white but has greater representation of all other races surveyed races than the US per the diversity score. According to the Up-and-Coming Families' life-mode description, this group finds leisure in family activities, movies at home, trips to theme parks or the zoo, and sports: golfing, weight lifting, and taking a jog or run.[3]

Tapestry Segmentation - *Enterprising Professionals*

ESRI describes Enterprising Professionals as a young market primarily occupied by STEM professionals. This market is characterized by individuals who move frequently for their career and as such, choose to live in condos, townhomes and/or apartments. This group is fast-growing, and these individuals and neighborhoods are often lower density neighborhoods within large metro areas. Individuals are almost evenly split between owners and renters (51.2 percent owners versus 48.8 percent renters). This group is just above 50 percent white with a high population of individuals identifying as Asian and Pacific Islanders.[4]

Tapestry Segmentation - *Professional Pride*

ESRI describes the Professional Pride lifemode as well-educated career professionals that have prospered through the Great Recession and maintain upscale suburban lifestyles. This market is characterized by individuals who work long hours and often commute far to get to work. This group is financially savvy, and individuals have accumulated an average of 1.6 million dollars in net worth. Individuals are almost entirely homeowners (91.6 percent) with few renters (8.4 percent). This group is majority white (78.7 percent) with a sizeable Asian and Pacific Islander population (12.6 percent), but it is significantly less diverse than the US.[5]

Tapestry Segmentation - *Bright Young Professionals*

ESRI describes Bright Young Professionals as a young population of well-educated working professionals. This market is characterized by individuals who live in urban outskirts of large metropolitan areas and are much younger than in most markets, with more than 1 out of 3 households occupied by individuals under the age of 24. This group is earning income at about the same average as the United States overall and is more often renters (57.2 percent renters versus 42.8 percent owners). This group is primarily white (65.1 percent) with a sizeable Black population (16.6 percent), and it is slightly more diverse than the US.[6]

TAPESTRY SEGMENT	TAPESTRY SEGMENT DIVERSITY SCORE	UNITED STATES DIVERSITY SCORE
Boomburbs	63.2	
Up and Coming Families	73.9	
Enterprising Professionals	73.0	64.0
Professional Pride	44.5	
Bright Young Professionals	67.5	

Figure 2.17 - *Diversity Score*

2   https://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment3.pdf

3   https://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment27.pdf

4   http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment9.pdf

5   http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment2.pdf

6   http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment35.pdf

TRENDS IN PARKS + RECREATION

The field of parks and recreation continually updates best practices and integrates new policies and technologies as they become available. A forward-looking parks and recreation department will be aware of new and emerging recreation trends and can anticipate the impacts broader trends will have on their departmental operations. This plan looks at local and national recreation and activity trends, high-level emerging trends in the field of parks and recreation, sustainability trends, and impacts of COVID-19 – all of which are expected to have significant impact on Apex's parks, recreation, and cultural resources department during the next 10 years.

Methodology

Local recreation trends are sourced from ESRI's Market Potential Index (MPI). The MPI is a measure that compares demand for a product or service within a pre-determined geographic area to the national demand for that product or service. Demand for a recreational activity is measured based on whether an individual has participated in a certain activity within the past 12 months. An MPI of more than 100 indicates that the local demand for a product is higher than the national average, while an MPI of less than 100 indicates that the local demand is lower than the national average. The products or services included within this comparison are specific to parks and recreation activities, though the products or services are not necessarily indicative of the Town's facility or program offerings.

National recreation trends and high-level emerging trends are sourced from a variety of industry standard publications including the Sports & Fitness Industry Association's (SFIA) Sports, Fitness & Recreational Activities Topline Participation Report. The report was utilized in evaluating the following trends:

› National Sport and Fitness Participatory Trends
› Core versus Casual Participation Trends
› Income Disparity

The 2021 SFIA report is based on findings from surveys carried out in 2020 by the Physical Activity Council (PAC). A statistically representative sample size of 18,000 completed interviews is considered to result in a high degree of statistical accuracy. A sport with a participation rate of five percent has a confidence interval of plus or minus 0.32 percentage points at a 95 percent confidence interval. 29.5%

Using a weighting technique, survey results are applied to the total US population figure of 303,971,652 people (age six and older). The purpose of the report is to establish levels of activity and identify key participatory trends in recreation across the US.

SOURCES FOR RECREATIONAL TRENDS

› Local Recreation Trends
  - ESRI Market Potential Index

› National Recreation Trends
  - Sport & Fitness Industry Association (SFIA)
  - National Recreation and Parks Association (NRPA)

› Equity Trends
  - NRPA
  - City Parks Alliance

› Intergenerational Recreation Trends
  - NRPA

› Sustainability Trends
  - NRPA

› Urban Agriculture Trends
  - NRPA

› COVID-19 Pandemic and Parks
  - Outdoor Fitness
  - NC State University
  - Trust for Public Land

Figure 2.18 - *Data Sources for Recreation Trends*

In addition to overall participation rates, SFIA categorizes active participants as either core or casual participants based on frequency. Core participants have higher participatory frequency than casual participants. The thresholds that define casual versus core participation may vary based on the nature of each individual activity. For instance, core participants engage in most fitness and recreational activities more than 50 times per year, while for sports, the threshold for core participation is typically 13 times per year. In each activity, core participants are more committed and tend to be less likely to switch to other activities or become inactive (engage in no physical activity) than causal participants. This may also explain why activities with more core participants tend to experience less pattern shifts in participation rates than those with larger groups of casual participants. Lastly, SFIA also tracks the multi-year data documenting the sport/ activity participation by income levels and calculates the Income Disparity Index which is the difference between the lowest income bracket and highest income bracket.

Local Recreation Trends

Local recreation trends were derived from ESRI's Market Potential Index (MPI) profile for the town. The table below lists the parks and recreation activities most popular with Apex residents, as indicated by having the highest percentage of participants and highest MPI values. This data is derived from spending associated with sports and sports equipment, and captures participation in public leagues, private leagues, and individual participation. Most activities can be done individually and with little specialized equipment. Walking, jogging, running, and biking are activities that residents can participate in anywhere, though they may choose to pursue these activities in public parks and greenways. Swimming, hiking, bowling, and golf are activities that can be pursued at a specific location and may require additional equipment and resources. The popularity of these activities suggests that the Town should continue to offer opportunities for residents to participate in these activities and invest resources to enhance those offerings.

WALKING FOR EXERCISE	SWIMMING	HIKING	JOGGING / RUNNING	BICYCLING (ROAD)	BOWLING	GOLF
29.5%	20.0%	16.2%	16.2%	12.0%	11.3%	11.1%
(MPI:116)	(MPI: 127)	(MPI:127)	(MPI: 148)	(MPI: 120)	(MPI:120)	(MPI: 133)

Figure 2.19 - Local Recreation Trends

The MPI analysis for all of the top 7 recreation activities in the Town indicate that not only are these activities very popular in Apex, but they are more popular in Apex than they are nationwide. In fact, of all the recreation activities analyzed in ESRI's MPI, except for freshwater fishing, hunting, motorcycling, and Pilates, have MPI values over 100, which indicates that, generally, recreational activities are more popular in the Town than they are in the country at large.

National Recreation Trends

National changes in the popularity of recreation activities provide additional context for activities experiencing increasing or decreasing popularity and give an overview of activity levels for individuals. These national trends supplement local trends and can serve to anticipate forthcoming trends at the local level. The popularity of activities has implications for future planning for the Department's programs and facilities. National trends also provide insight as to whether changes within a given year at the local level are isolated trends or part of a larger shift in preference.

According to the Sports, Fitness & Recreational Activities Topline Participation Report, the five activities experiencing the largest growth nationally in the last year are camping, tennis, birdwatching, hiking, and RV camping.[7]

All of the top 25 activities facing decline are indoor activities, requiring a specialized facility and/or equipment with the exception of baseball. This is likely due to closure of facilities during the COVID-19 pandemic. The sharp decrease in the past year alone appears likely to be the contributing factor for a three-year average decline.

	CAMPING	TENNIS	BIRDWATCHING	HIKING	RV CAMPING
1-year change	28%	22.4%	18.8%	16.3%	15.5%
3-year change	11.7%	7.5%	7.7%	8.9%	3.7%

Figure 2.21 - Top Recreation Activities

Figure 2.20 - *Tennis Courts (Source: Places2play.org)*

When looking at a 3-year average, the level of decline for these activities are much less significant. Similarly, the 1-year increases in hiking, camping and tennis are better viewed within the context of their 3-year average change which is trending upward but not as significantly as the 1-year change. This can likely be attributed to the fact that these are all outdoor activities with minimal interaction with large groups of individuals.

Nationally, the top five fastest growing sports/activities according to the same report were skateboarding, surfing, camping, tennis, and pickleball.

	SKATEBOARDING	SURFING	CAMPING	TENNIS	PICKLEBALL
1-year change	34.2%	28.2%	28%	22.4%	21.3%

Figure 2.23- *National Trends*

The pandemic has affected the overall frequency of Americans participating in fitness and sports. In 2020, 46.3 percent of active Americans participated at Core level, which is a slight increase from the 2019 percentage (+/-45%) and represented a trend reversal where Casual participation has been on the rise since 2014 (+/-50% in 2014 and +/- 52% in 2020). The SFIA report suggests that the COVID pandemic was the cause for radical change in lifestyle where "COVID-acceptable" activities such as going on a walk, family camping trip, live stream fitness classes, or playing tennis and golf were on rise.

The 2021 SFIA data shows that physical activity rates are correlated to household income, with higher rates of income associated with higher activity rates. The income disparity index (IDI) climbed up since 2015 (1.40) to 2018 (1.59) and reduced back again in 2019 (1.53) and 2020 (1.46). In 2020, the highest income disparity against sport/ activity participation was found with water sports, winter sports, and racquet sports, which shows that the developing affordable programs could bridge the access gap for lower income populations.

Recreation Management Magazine publishes the state of the industry report annually. According to the 2021 report, the parks and recreation agencies across the country reported that the most common facilities found in their parks system remain playgrounds, park shelters, trails, open spaces such as natural areas and gardens, sports courts, sports fields, concession areas, and restrooms.[8] The top three most planned

Figure 2.22 - *Camping (Source: NC State Parks)*

additions to facilities for year 2021 are: outdoor fitness areas and fitness trails, splash play areas, and walking and hiking trails. From a programmatic standpoint, it comes as no surprise that the biggest change being seen in the industry has been the development and implementation of online programming, followed by conversion of indoor programming to outdoors, because of the pandemic. Other program additions include educational support for schoolchildren and childcare for essential workers.

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7   Sports and Fitness Industry Association. State of the Industry. Silver Spring, MD: SFIA, 2021.

8   Recreation Management. "2022 Trends in Parks & Recreation." Recreation Management, 2021. June 1. https://rec-management. com/feature_print.php?fid=202106FE03.

The National Recreation and Parks Association (NRPA) also issues an annual trends report. The 2022 report includes several of the noted trends are rooted in the concept of Parks as Infrastructure.[9] With the passage of the Great American Outdoors Act in 2020 that permanently funds the Land and Water Conservation Act at $900 million annually, and the recent passage of long-sought infrastructure funding in the INVEST in America Act, there will be significant funding opportunities available for land acquisition, park and recreation planning, and infrastructure maintenance, repair, and development.

Two national trends of note are increased integration of technology and a decline in community-based youth sports participation. On technology, NRPA notes the increased use of drones for horticultural maintenance, a transition to electric maintenance vehicles and mowers, and a long-term future use of pedestrian robots using public paths in parks for deliveries and other services. NRPA also provides commentary on a steady decline in youth participation in recreation that has been happening since the late 2000s and has been exacerbated by the COVID-19 pandemic. Citing multiple academic studies, NRPA reports that youth participation in sports decreased 7 percent between 2008 and 2018 and that most kids between the age of 6 and 12 playing a team sport had quit by age 11. Since the onset of the pandemic, 30 percent of youth have reported that they are no longer interested in picking their pre-pandemic team sports back up. NRPA encourages parks and recreation organizations to implement sports sampling programs, which allow youth participants to try a variety of sports to find something that aligns with their interest and skills. In addition, NRPA sees a return to community-based sports in the future and that parks and recreation agencies are the most ideally positioned to be multi-sports providers.

INTERGENERATIONAL RECREATION TRENDS

Children And Nature Programming

The Cities Connecting Children to Nature (CCCN) initiative offers local officials guidance for establishing new connections between children and nature.[10] The Children and Nature Network and other organizations have been pushing efforts to provide the benefits of nature for all children. Parks and open spaces provide the easy opportunity to highlight natural resources and enhance access to these areas. Nature-based programming, after-school and summer camp programming in natural areas, and educational programming (to raise environmental awareness) are some of the strategies that are on the rise across the country.

Figure 2.24 - *Children in Nature Program*
credit: www.metroparkstacoma.org

Adult And Senior Programming

Many parks and recreation departments have expanded to provide fitness, athletic, and enrichment programming for adults and seniors. NRPA's Healthy Aging in Parks[11] campaign was developed to improve and maintain the health and wellbeing of older adults through parks and recreation. It focuses on preserving the health, independence, and social connections of older adults. with the following strategies:

›	Chronic Disease Prevention and Management: Dissemination and increased sustainable supports for evidence-based chronic disease prevention and management programs

›	Food Security: Improved access to healthy foods

›	Social Isolation: Increased opportunities to establish strong and healthy social connections

Figure 2.25 - Adult and Senior Programming
Credit: www.burlingtonnc.gov

Additional ongoing nation-wide initiatives to generate multi-level benefits of parks and recreation are summarized in the table below.

INITIATIVE	DESCRIPTION
10-MINUTE WALK	Parks are free and open to the public and serve as important locations for people to play, socialize, and gather as a community. Community members are only able to access free or low-cost parks and programs if they can afford the trip to get there. Ensuring an equitable distribution of parks and amenities throughout a geographic area means residents truly have affordable access to parks and programs. [12] The 10 Minute Walk campaign is working to "ensure there's a great park within a 10-minute walk of every person, in every neighborhood, in every city across America." Seven North Carolina mayors have signed the pledge according to the Trust for Public Land.

9	Doles, Richard J. "Top Trends in Parks and Recreation for 2022." National Recreation and Parks Association, 2021. December 16. https://www.nrpa.org/parks-recreation-magazine/2022/january/top-trends-in-parks-and-recreation-for-2022/.

10	"Cities Connecting Children to Nature, A municipal Action Guide", CCCN-Municipal-Action-Guide.pdf (cityparksalliance.org)

11	"Healthy Aging in Parks"; https://www.nrpa.org/our-work/partnerships/initiatives/healthy-aging-in-parks/healthy-aging-in-parks-about/

12	https://www.10minutewalk.org/#Home

INITIATIVE	DESCRIPTION
93%[13] Percentage of Americans looking to local governments to increase affordable out-of-school time programming at their park and recreation agency	Parks and recreation departments frequently provide day programs and camps for children at below-market or discounted rates. This service provides an affordable alternative for families who must find childcare when school is out of session. A recent study from the National Recreation and Parks Association found "93 percent of Americans believe providing affordable out-of-school time programs at local parks, recreation centers and libraries to families of all income levels should be a goal of their local government. Currently, 93 percent of park and recreation agencies nationwide administer or manage out-of-school time programs." Day programs and camps can benefit all children but are especially important for low-income families with few other options for daytime childcare options.
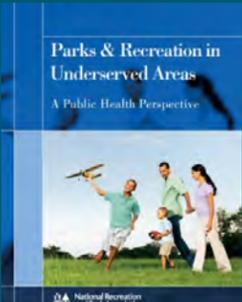
Parks and Recreation in Underserved Areas: A Public Health Perspective[14] states, "Several studies have documented that while parks and recreational facilities are available throughout the United States, there are several additional factors that affect park use and physical activity levels." Factors include:

PARK ACCESS	PARK DISTRIBUTION	PARK FACILITIES	PARK CONDITIONS
Easy park access is associated with increased park use. Park visits are more frequent and physical activity levels are higher.	Disparities in park distribution are particularly evident in areas with low-income and racial/ethnic populations.	Within parks, there are certain types of facilities that encourage higher levels of physical activity, such as trails and playgrounds.	Park facilities that are consistently well maintained, aesthetically appealing, and safe have increased public use and physical activity.

Figure 2.26 - National Recreation Research Summary

DIVERSITY, EQUITY, AND INCLUSION TRENDS

The National Recreation and Parks Association (NRPA) recognizes that equal access to parks is a right, not a privilege.[15] [16] Their position statement on social equity states, "Our nation's public parks and recreation services should be equally accessible and available to all people regardless of income level, ethnicity, gender, ability, or age. Social equity is a critical responsibility borne by every public park and recreation agency and the professionals that operate them." According to NRPA, "designing programming to meet the needs of multicultural, racial, or ethnic communities supports the well-being of historically marginalized and vulnerable groups." Other programs around the nation have offered community gardens, health and wellness programs, and budget and personal finance training for multicultural, racial, and ethnic communities, in addition to a high-quality park system that is equitably distributed across a community.The National Recreation and Parks Association (NRPA) acknowledges that parks and recreation providers can be at the forefront of addressing racial equity due to their unique role as a public service provider of many quality-of-life programs and amenities. The NRPA recommends the following considerations for addressing racial equity in parks and recreation:

› Normalizing conversations about race is the only way to develop effective strategies for racial equity. One of the biggest challenges is the general discomfort many people experience in talking about race. This is a critical hurdle to overcome. Avoiding conversations about race means there is a greater likelihood that organizations will not develop appropriate strategies to address institutional and structural racism.

EXAMPLES OF INCLUSIVE PROGRAMS

› Volunteer or employment activities including work opportunities at local parks and special events

› Health and wellness programs such as cooking and nutrition programs

› Field trips

› Special Olympics or Paralympics

› Therapy and mentoring services such as therapy swimming, art/ music therapy

› Technology training
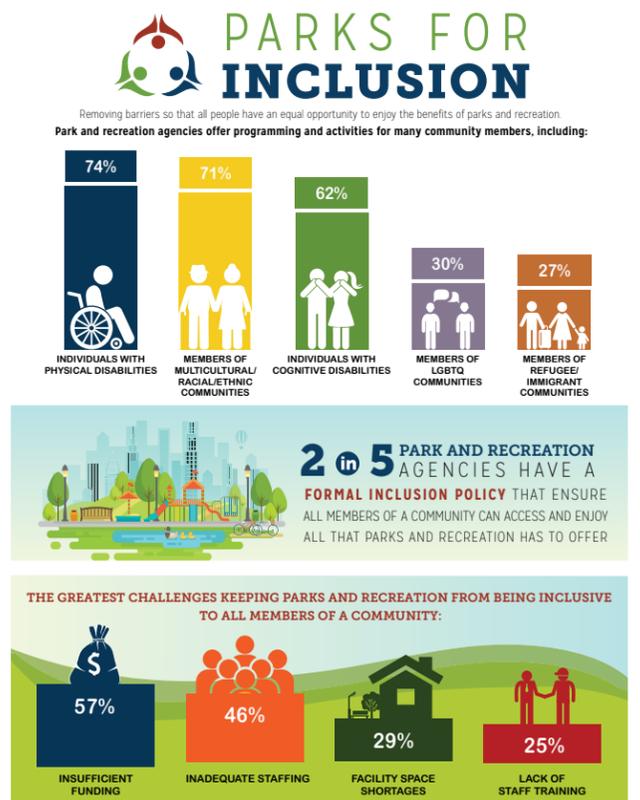
Figure 2.27 - Parks and Rec Inclusion Report

13   https://www.nrpa.org/publications-research/park-pulse/park-pulse-survey-affordable-out-of-school-time-programming/

14   https://www.nrpa.org/uploaded. Files/nrpa.org/Publications_and_Research/Research/Papers/Parks-Rec-Underserved-Areas.pdf

15   Kellogg, Michelle, and Julie Nelson. "Racial Equity in Parks and Recreation." National Recreation and Parks Association, 2015. November 30. https://www.nrpa.org/parks-recreation-magazine/2015/december/racial-equity-in-parks-and-recreation/.

16   Rouse, David. "Social Equity, Parks and Gentrification." National Recreation and Parks Association, 2018. July 26. https://www.nrpa.org/parks-recreation-magazine/2018/july/social-equity-parks-and-gentrification/.

› Behavior drives attitude. It is a common misconception that attitude drives behavior and expecting people to "understand" racism can lead to desired behavioral changes. However, changing behavior changes understanding. Providing common understanding of racial equity terminology and tools to use helps employees develop an increased understanding of institutional and structural racism.

› Equity is a process. Embedding racial equity in the core operations of an organization takes continual learning and practice. It should be considered as an ongoing process of delivering business and not relegated to a checkbox or an additional step to an existing process.

Figure 2.28- Butterfly Plantings

NRPA first published its Inclusion Report in 2018, addressing the challenges for people with different backgrounds to access high-quality parks and recreation programming. NRPA defines inclusion as removing barriers, both physical and theoretical, so that all people have an equal opportunity to enjoy the benefits of parks and recreation[17] and have made formal commitment through "parks for inclusion" pledge. Parks for Inclusion supports built environment enhancements, model policy development, and best practices for program implementation to increase access to health opportunities for the following populations:

› Those with physical and cognitive disabilities

› The LGBTQ community

› Racial and ethnic minorities and new Americans

Two in five parks and recreation agencies have adopted formal inclusion policy to maintain consistent guidelines and implementation standard across the agency. Examples of programming for individuals with physical and cognitive disabilities include physical activity programming, volunteer and employment activities, and health and wellness programs.

Acknowledgment of demographic diversity through celebratory programs such as heritage and holiday celebrations, culturally sensitive program hours, and health and wellness programs that reflect cultural and ethnic practices helps to bring the community together. Programs and activities geared towards diversity and inclusion include community gardens, women-only programs such as dedicated swimming pool and gym hours, language training, technology training, financial training, and health and wellness programs such as culinary skills and nutrition classes.

ENVIRONMENTAL SUSTAINABILITY TRENDS

Parklands in dense urban areas are credited for reducing heat island effects through tree canopy coverage and for helping mitigate stormwater runoff by allowing infiltration into previous land. Increasingly, parklands have been recognized as a vital component of infrastructure development strategy to help mitigate the impacts of climate change.

According to a survey of parks and recreation organizations conducted by the NRPA, nearly 50 percent of parks and recreation agencies had adopted a Sustainability Plan or would go through the process of developing and adopting one in the near future.[18] The trends seen in this report relating to sustainability show that most agencies contributed to city, county and/or state sustainability goals by providing healthy outdoor activities for residents, protecting and managing wildlife and wildlife habitat, responsibly managing natural land, reducing landfill waste, practicing environmentally friendly design such as green infrastructure, and fostering sustainability through public education and engagement.

Figure 2.29 - Nature Park Stormwater Feature

The NRPA's top trends of 2022 predicted that most new parks will be designed with environmental resiliency in mind. Parks are and will continue to be seen increasingly as landscapes providing a multitude of benefits including stormwater management, protection against flooding, mitigation of rising temperatures, and promotion of environmental and social resiliency. NRPA also predicted that, in an effort to address extreme heat and the emptying out of strip malls and big-box stores, park and recreation projects will increasingly include transformation of these vacant parcels into recreation amenities. Assessment of fallow land and highest and best use of existing developed land will be priorities for agencies looking to expand their impact and geographic presence and distribution. An additional noted trend is an increasing view of parks as critical infrastructure for the environment, the economy, and social and physical well-being.

URBAN AGRICULTURE TRENDS

A growing trend nationwide and globally, in line with the increased view of parks as infrastructure, is the view of parks as food resources. There is a growing consensus around the viability of parks as a food resource and the important role parks and recreation agencies can have in communities as providers of healthy and nutritious food. Nationwide, according to NRPA, park and recreation professionals work to provide access to healthy food through a variety of venues[19]:

› Summer Camps (82 percent)

› Nutrition Programs (57 percent)

› After-School Programs (56 percent)

› Community Gardens (46 percent)

› Farmers Markets (24 percent)

› Community Supported Agriculture Systems[20]

17 National Recreation and Parks Association. "Parks and Recreation Inclusion Report," 2018. https://www.nrpa.org/contentassets/e3 86270247644310b06960be9e9986a9/park-recreation-inclusion-report.pdf

18 National Recreation and Parks Association."Park and Recreation Sustainability Practices," 2017. https://www.nrpa.org/contentassets/f768428a39aa4035ae55b2aaff372617/sustainability-survey-report.pdf.

19 National Recreation and Parks Association. "Parks and Recreation: A Link to Healthy Food," 2020. https://www.nrpa.org/parks-recreation-magazine/2020/february/parks-and-recreation-a-link-to-healthy-food/.

20 https://www.nytimes.com/2014/11/07/giving/what-the-doctor-ordered-urban-farming-.html

Figure 2.29 - Nature Park Stormwater Feature

COVID-19 PANDEMIC AND PARKS

The COVID-19 pandemic has simultaneously put strain on parks and recreation organizations and highlighted their importance to both the physical and mental health of their users. For the better part of the pandemic, the outdoors has been the safest place for social gatherings and individual recreation. At times, it has been the only option for fitness and recreation due to the shuttering of indoor gyms and recreation facilities. In 2021, Outdoor Industry Association (OIA) commissioned one-time special report from research partner NAXION to share exclusive insights about Americans' engagement in outdoor activities amid the COVID-19 pandemic.[21] The special report examines demographics and psychographics of the new outdoor participant — defined as someone who participated in an outdoor activity for the first time during the pandemic or after a significant lapse. The key findings from this report suggest that those who participated in an outdoor activity for the first time alone did so close to home and chose an activity with a low barrier to entry (e.g., walking, running, biking, hiking, etc.). Compared to results from 2019, the 2020 participants were more diverse from gender, age, ethnicity, and income perspective.

According to the 2021 outdoor participation trends report by OIA, in 2020, 53 percent of Americans participated in an outdoor recreation activity at least once, which is the highest participation rate on record.[22] The report cautions, however, that this growth is not guaranteed to be sustained in a post-pandemic world, with one-quarter of new participants saying they did not want to return to their outdoor recreation activities. Additionally, the overall number of times that participants engaged in outdoor recreation continued to decline as it has in years past. Engagement with individuals participating in these activities for the first time, especially those open to sustaining outdoor recreation post-pandemic, could reveal programmatic and facility desires from that population that would keep them as users of the system.

Researchers at North Carolina State University led two studies examining how a decrease in outdoor activities and park use by teens and young adults led to a decline in mental health and well-being.[23] These studies found that 54 percent of college students reduced their park use during the pandemic. They also found that increased worry about contracting COVID-19 was marked by a further decline in parks use, particularly among students identifying as Asian or Black. Fifty-two percent of students self-reported a decline in mental health, nearly matching the percentage of students who had reduced their outdoor activities due to the pandemic. On the other hand, the studies found less overall distress attributed to COVID-19 among students who increased their park and outdoor use during the pandemic. These studies emphasize the important role of parks and recreation agencies in improving mental health and wellbeing for younger individuals.

Figure 2.30 - COVID Pandemic + Parks
Credit: www.tpl.org

21   Outdoor Industry Association. "2021 Outdoor Participation Trends Report", Outdoor Industry Association, 2021

22   Outdoor Industry Association. "The New Outdoor Participant (COVID and Beyond)." Outdoor Industry Association, March, 2021.
        https://outdoorindustry.org/resource/2021-special-report-new-outdoor-participant-covid-beyond/

23   Larson, Lincoln, and et al. "Greenspace and Park Use Associated with Less Emotional Distress among College Students in the United
States during the COVID-19 Pandemic." Environmental Research. 204 (Part D), 2022. https://www.sciencedirect.com/science/article/pii/
S0013935121016686?casa_token=EZ-XY76jqRwAAAAA:ZtuQLp6m5UEl6wlb5Pv7JmhN4utLcJKslxed_pN4OF8j-1gpM6e-WFb2ycgdgpGN85dF_0S6lg.

The following excerpt is derived from the **2020 Trust for Public Land special report: Parks and the Pandemic. The report highlights the following challenges and changes as they are affecting the parks systems.**

> Health: Parks and open spaces have become critical resources for all the physical and mental health benefits they provide. The pandemic has resulted in closings of restaurants, bars, malls, etc. where people socialize, and parks and open spaces are helping fill that gap while also helping communities deal with the trauma and stress that comes with a global health crisis. The report also notes that the pandemic has revealed a significant gap in the nation's poor neighborhoods which lack access to the quality green spaces, thus depriving them of the health benefits.

> Usage: As businesses and non-essential services have closed across the nation, people have found respite in close-to-home neighborhood parks, open spaces, and greenway trails as a way to stay physically active and meet other people while maintaining the 'social distance'. Parks and greenway trails are seeing unprecedented high levels of usage, proving their importance in this health crisis. This has also led to overwhelmed parks and recreation systems, and many communities have had to come up with innovative ways to encourage people to maintain distance and use open spaces in accordance with CDC guidelines. Some of the strategies included markings for people to keep distance, educational signs, one-way loops for greenway trails, opening athletic fields for walking and passive recreation activities, and voluntary sign-ins for people to use spaces on certain days of the week.

> Policy: Across the country, the pandemic has led parks departments to consider a range of policy changes by closing off amenities, athletic programs, and facilities that result in large gatherings. While communities have maintained access to open spaces, portable toilets, restrooms, drinking fountains have been shut down. In major cities, the problem of equitable access became apparent when parking lots were closed to manage heavy traffic in parks, which in turn created a barrier for people not within the walking distance of the parks.

> Investment: Exacerbated usage of parks and open spaces has underscored the need for parks and recreation investment as essential infrastructure investment and leverage the momentum of communities' interest to be outdoors and focused on health benefits. Cities and towns across the nation are facing the financial challenges of decreased revenue, employment loss, and budget cuts. Elected officials and decision makers need to realize the importance of parks and recreation as an essential service in this pandemic and ensure a steady investment to continue offering the quality service to their communities.

> Future: The Trust for Public Land report also highlights that the pandemic has called attention to the fact that access to the outdoors is considered a privilege when it should be a right. With the data to pinpoint where parks are most needed, we can address equality challenges across communities. Experts in the field are suggesting that this is the crucial time to continue supporting the operational needs of parks to maintain their high quality, especially in the underserved areas where there is a higher chance of them falling victim to antisocial activities.

SUMMARY OF FINDINGS

The Town of Apex is experiencing above-average population growth with an annual growth rate nearly three times as high as North Carolina's and nearly four times as high as the United States'. Population growth, driven by migration, is anticipated to shift the overall demographic composition of the Town in the next 10 years. Anticipated changes include:

› An aging population where the proportion of adults over the age of 65 will increase by 2.8 percent to a total of 12.4 percent by 2031.

› A population whose growth in individuals under the age of 65 is almost entirely driven by growth in the 25- to 34-year-old segment.

› A more diverse population where individuals identifying as White Alone will represent 68.5 percent of the population, compared to 72.8 percent currently. This change is driven by an increase in the population identifying as Asian Alone from 11.4 percent to 14 percent.

› An increasingly wealthy population where households with income over $100,000 are experiencing a positive annual growth rate.

› A population where most of the migration in recent years is coming from either the same or other Metropolitan Statistical Areas (MSA) with most coming from the same MSA.

As Apex's population grows and changes in the coming decade, the community's recreation needs will grow and change. The demographics findings combined with the national and local recreation trends will form the basis for informing the new Parks, Recreation, and Open Space Master Plan recommendations. The demographic shifts will impact the future recreation trends in Apex in following ways:

› The overall rapid population growth indicates a need for expanding parks and recreation services and suggests a growing tax base to support that work.

› The population segmentation projects suggest the need for adult and youth athletics as well as family-oriented and intergenerational programming for growing active adult community. All parks and facilities will need to feature amenities and design elements that are inclusive to all abilities, age, ethnicity, and race.

› The area's racial demographics will change during the next ten years. There is a need for equity, diversity, and inclusion efforts to ensure equitable provision of parks, facilities, amenities, and programs.

› Apex has largest proportion of highly educated population. This population segment may be looking for new and innovative programs and facilities they have experienced elsewhere. The town will have to balance the needs of all residents by providing programs that generate revenue, support the cost of offerings, and essential programs that minimize the barrier to participate.

› The already high and continually increasing household income level indicate the ability to pay for parks and recreation services. Regardless of rising income for some community members, residents with lower incomes must still have affordable or no-cost access to parks and recreation services.

› Several of the emerging trends in parks and recreation include environmental, economic, and social benefits of parks and will need to be contextualized for the town's parks system as essential infrastructure investment.

› In the aftermath of COVID-19, there is an opportunity to turn casual users of parks and recreation facilities who increased their use of such facilities during the pandemic into core users who use facilities long-term. The innovative ways of conducting recreation programs in socially distanced and outdoor settings is a trend to be monitored as the world is coming out of the impact of the pandemic.

SITE ASSESSMENTS

IN THIS CHAPTER

Data Sources
Estimates + Projections
Tapestry Segmentation
Trends in Parks and Recreation

The purpose of the facilities inventory assessment is to determine how well the Town of Apex Parks Recreation and Cultural Resources (PRCR) Department is meeting the needs of town residents and visitors with its parks, open space, and facilities. These findings will contribute in determining the overall level of service findings for the town and establish the vision for the future parks and recreation system.

According to the National Recreation and Parks Association (NRPA), the basic definition of Level of Service (LOS) is expressed as an allocation mechanism for the delivery of park and recreation facilities. By understanding the current level of service for parks and recreation facilities within the town, a community can better understand how and if residents have equal opportunity to basic parks and recreation services. To do this, the team evaluated the facilities that exist utilizing the community values identified in the planning process. These values are unique to the Town and provide the lens for which each park was assessed. This process helps determine if the parks and the amenities within them are meeting the goals and vision for Parks, Recreation, Greenways, and Open Space for the Town of Apex.

Each Park was evaluated using the common themes and criteria to understand if it is falling below the goals for the town (**N**= needs improvement - 50% or less of the criteria were observed), meeting the goals for the town (**S**= Satisfactory - Approximately 50% of the criteria were observed), or performing above expectations (**C**= Commendable - 75% or more of the criteria were observed). All of the criteria below helped determine how a park is performing to meet the needs and expectations of Apex community.
Recreation Offerings For "All" Residents.

RECREATION OFFERINGS FOR "ALL" RESIDENTS
Providing access to quality parks and recreation resources for all is an important part of the Departmental mission. The parks were examined to see if they met the following criteria:

› Is there wifi in the park?
› Is there accessible seating?
› Is there power and/or charging stations?
› Are the amenities open to the general public?
› Are reservations systems and information solely online?
› Is there a fee based facility?
› Is information communicated in the park as well as online?
› Is the park in a socially vulnerable area?
› What is the overall park quality?
› Do the amenities look well maintained?
› Does the park feel welcoming for all ages and abilities?
› Do the amenities support use by multiple age groups?

‹ Figure 3.1 – *Elevate Course*

Connectivity

Ensuring the community is connected and allows users to easily access a park or facility has been identified as a key value for the community. This part of the assessment evaluated connectivity within the park, to and from the park, and what resources are available that allow users to use alternative transportation. The greenways evaluation section of this report will go into greater detail regarding the overall town-wide greenway system. This portion of the assessment examined:

› Is there nearby transit?
› Is there a community greenway connection to the park and are there contiguous sidewalks to connect to park entrances?
› Are there proposed greenway connections?
› Is the park internally connected?
› Can you get from amenity to amenity within large and small parks?
› Is the surface and width accessible?
› Do you know where you are in the park and/or Apex?
› Do you know how long it might take you to walk a trail?

Operations Efficiency

The town has identified Operations Efficiency as a component to park health and community values. In order to determine if a park addressed this value the following criteria were used during the assessment:

› What percentage of the park requires active maintenance?
› How much of the park is programmed space?
› Does the Park allow for rental or vendor use?
› Does the Park use volunteers?
› Does this Park use contract services for Maintenance?
› Are environmentally sustainable practices used in this park, such as, organic landscape maintenance, storm water capturing, and recycling bins for park patrons?

◢ Figure 3.2 - *Disc Golf at the Nature Park*

Sense of Community

The town has identified creating a sense of community in its parks and civic spaces as a core value. In order to determine if a park or facility is serving the town in this way the following criteria were evaluated:

› Does the park promote social interaction?
› Does the Park contain opportunities for Passive and/or Active Recreation?
› Is there a balance of sun and shade?
› What is the noise level? Are there opportunities for both quiet and engaged spaces?
› Is there an opportunity for seating?
› Does the park allow users to connect with Nature and the features within the park?
› Can the user quantify their experience in time or distance?

Environmental Stewardship

Sustainability is a goal for the town, whether it be through programming, material use, facility development, or site plan layout, each of these factors contribute to the overall users ability to experience nature and the overall sustainability of the park. Each of the following factors were evaluated:

› Are there park features in a floodprone area?
› Are features placed and designed to endure natural impact?
› Is there green infrastructure present? (pavement, lighting, solar, stormwater, etc.)
› Is there a feature that requires consistent maintenance?
› Are there opportunities to reduce land management?
› Have maintenance practices been evaluated for impact?
› Are there any furnishings or site features that respond to overall goal of achieving environmental sustainability such as benches sourced from sustainable materials, recycling and composting options?
› What does the landscape look like and is there a focus on native, drought tolerant vegetation?

Unique to Apex

The Town of Apex wants to ensure its park users have the opportunity to experience new and engaging opportunities in their parks and civic spaces. Creating opportunities that are not repetitive and are unique to Apex is a core value. This can be done through unique programming, unusual material use, unique facility development, or unique site plan layout. Each of these factors contribute to the overall users ability to experience something that is unique to Apex. Each of the following factors were evaluated:

› Are there park features present that are only provided in this park?
› Are features something that celebrate the town?
› Is there an experience that a user can get in Apex and not nearby?
› Does the feature highlight what makes Apex different?

OVERALL PARK LOCATIONS
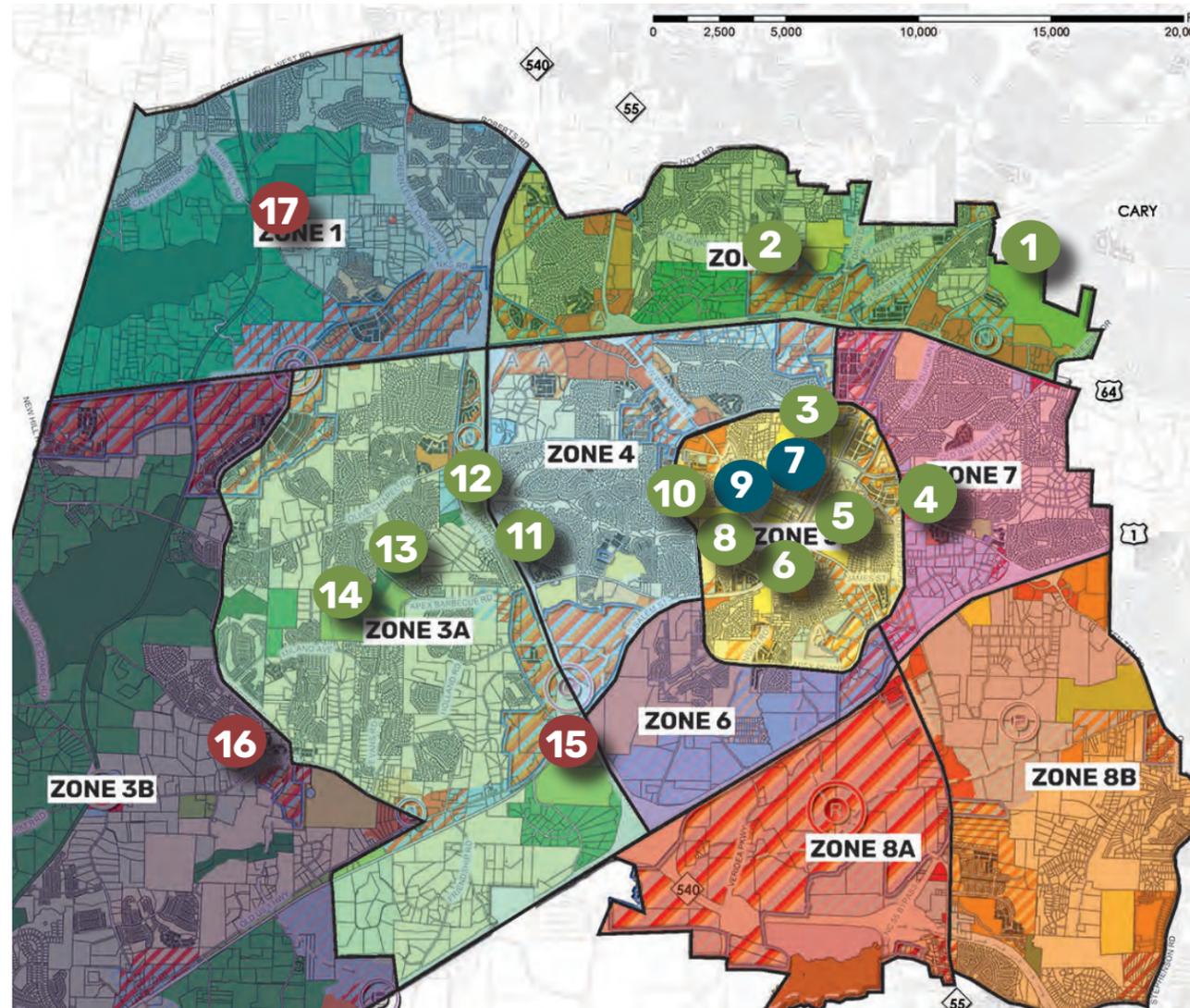
Figure 3.3 - *Existing and Future Parks and Facilities*

Existing Parks

1. Apex Community Park
2. Salem Pond Park
3. Hunter Street Park
4. Seagroves Farm Neighborhood Park
5. Clairmont Park
6. Sue Helton Memorial Park
7. John Brown Community Center, Apex Senior Center, Town Hall Complex
8. West Street Park
9. Halle Cultural Arts Center

Existing Parks (cont.)

11. Jaycee Park
12. Kelly Glenn
13. Kelly Road Park
14. Seymour Park Athletic Fields
15. Apex Nature Park

Future Parks

16. Future Pleasant Park
17. Future Olive Farm Park
18. Future Wimberly Road Park

APEX FACILITIES OVERVIEW

The Town of Apex has 12 park sites within its system, three indoor facilities, and three undeveloped "future park sites". These total 629 acres of parkland. Of this total acreage, 67.57 acres are considered "future" parks. The Town of Apex also has 4 joint use facilities within its system, all in partnership with Wake County School systems. There are two elementary schools, and two middle schools within the system sharing facilities.

The existing 629 acres in the system contain approximately 311 developed acres, 117 acres of future park land, and 181 conservation acres. It is important to note, much of the underdeveloped acreage contains water, wetlands, floodplains, and steep slopes, leaving only 141.90 acres that would be considered developable. In further breaking down the 141.90 acres, a large portion is not easily accessed, or currently serves as un-programmed space within a park unit. This illustrates the very high demand and impact on existing park amenities within each park unit.

The Town of Apex has 81,986 square feet of indoor recreation space that houses the Apex Community Center, Halle Cultural Arts Center, and the Apex Senior Center.

Town parks contain over 25.9 miles of greenway trails, with 4 miles of natural surface and 2.9 miles of paved trails being located within the park units, providing links to the larger town wide greenways system.

The town also contains several facilities unique to Apex, approximately 13, which are highlighted in the individual park unity inventory sheets.

It is also important to note the distribution of the park units. Six of the ten zones do not contain park units, two of those zones contain purchased land for future park units, and one of these zones has an approved development with future park land dedication.

PARKLAND	TRAILS	INDOOR FACILITY SPACE	SIGNATURE PARK FACILITIES
629 acres Total parkland	**25.9 Total miles**	**111,173 sq. ft.** of indoor facility space	**13** unique facilities
331 ac- developed parkland 117 ac- future parkland 181 ac- conservation land	**19+ miles** of greenway trails (8-10ft wide asphalt, concrete, boardwalk/ bridges)	**86,294 sq. ft.** of indoor recreation space	**4** lighted turf fields **2** dog parks **1** Elevate fitness course
12 parks	**4 miles** of natural surface trails	**1** Community Center (2 gyms & 4 classrooms)	**1** Kidstowne community-built playground **1** disc golf course
1 50+ acre lake	**14 miles** of new greenway segments in development	**1** Cultural Arts Center (auditorium, gallery & classroom)	**1** roller hockey court **1** skate plaza **1** outdoor performance venue
2 parks with ponds	**33+** Future Greenway Miles	**1** Senior Center (5 classrooms, 4 meeting rooms & rental space for 400+)	**1** public art walk

Figure 3.4 - *Exisitng Parks and Facilities (Data from 2022)*

APEX FACILITIES OVERVIEW

Park Name & Address (*denotes a lighted facility)	Acreage	Hours of Operation	Zone	Indoor Bldg. s.f.	Baseball / Softball Fields	Batting Cages	Soccer Fields	Multi-purpose Synthetic Turf Field	Open Play Area	Outdoor Basketball Courts	Tennis Courts	Pickleball Courts	Roller Hockey Court	Skate Plaza	Sand Volleyball Courts	Disc Golf	Natural Trails (miles)	Paved Trails (miles)	Greenway Trailhead	Cross Country Course	Fishing (Permit required)	Small Craft Boating	Playgrounds	Fitness Course	Splash Pad	Picnic Shelters	Shelter Rentals	Multi-purpose Rental Spaces	Classrooms	Gymnasiums	Performance Space	Amphitheater	Restrooms	Dog Park
APEX COMMUNITY PARK ATHLETIC FIELD ENTRANCE 2200 Laura Duncan Road / LAKE PINE ENTRANCE 1808 Lake Pine Drive	160	6:30am-10pm	2		3*	2	1			3	6*	1			3		2	2.17			✓	✓	2	2		2	2						3	
APEX NATURE PARK & SEYMORE ATHLETIC FIELDS 2600 Evans Road	160	6:30am-10pm	3a					2*		1	5*	4			2	18 holes	3	3	future				1			2	2	1			1		2	1
JOHN M. BROWN COMMUNITY CENTER 53 Hunter Street (part of Town Hall Complex)	11.47	Monday thru Friday, 8am - 9pm; Saturday, 9am - 6pm; Sunday, 1pm - 6pm (Closed Sundays Jun-Aug)	5	44,147																								4	4	2			✓	
APEX SENIOR CENTER 63 Hunter Street (part of Town Hall Complex)		Monday thru Friday, 8am - 5pm	5	28,000																								9	11		1		✓	
HALLE CULTURAL ARTS CENTER 237 N. Salem Street	0.16	Monday - Friday: 9 am - 6 pm; Saturday: 9 am - 1 pm; Closed Sunday (Open additional hours for programmed rentals)	5	14,147																								4	3		1		✓	
HUNTER STREET PARK 1250 Ambergate Station	12	6:30am-10pm	5		1	2	1								1			0.5					1			1	1						1	1
JAYCEE PARK 451 NC Highway 55 / West Williams Street	23	6:30am-10pm	5		1*	1	2												✓				1			1	1						1	
KELLY ROAD PARK 1609 Kelly Road	25	6:30am-10pm	3a		1*					1	1*	4						0.5	future				1			2	1						1	
SALEM POND PARK 6112 Old Jenks Road	12	6:30am-10pm	2					1*										0.5			✓		1										1	
CLAIRMONT PARK 801 E. Chatham Street	1.5	Sunrise-9pm	5						✓	1													1			1								
KELLY GLEN 1701 Kelly Glen Lane	2	Sunrise - Sunset	3a																				1			1								
SEAGROVES FARM PARK 201 Parkfield Drive	11	6:30 AM – 9:00 PM	7						.5									0.4			✓		1			1	1						1	
SUE HELTON MEMORIAL PARK 703 Matney Lane	0.25	Sunrise - Sunset	5																				1			gazebo								
WEST STREET PARK 108 West Street	1.3	Sunrise - Sunset	5						1														1			1								
PLEASANT PARK 3400 Pleasant Park Rd.	92	Phase I: Currently under construction	3a							6*	1	2	4*	6	1			5k			✓		2			2		2	2				3	
		Phase II: Future	3a		4*	4																	1			1		1	1	1			2	
Future OLIVE FARM PARK 3020 & 3024 Olive Farm Road	21.73	Land acquisition	3b					FUTURE																										
Future WIMBERLY ROAD PARK	45.84	Land acquisition	1																															

APEX COMMUNITY PARK

ADDRESS:	LAKE ENTRANCE:
PARK ENTRANCE:	1808 LAKE PINE DRIVE CARY, NC 27511
2200 LAURA DUNCAN ROAD, CARY, NC 27511	

Zone:	Size:	Estimated Developed Acreage:	Hours:
2	160 acres	66.7 Acres	6:30am to 10pm

| HIGHLIGHT OF EXISTING FEATURES	QUANTITY	HIGHLIGHT OF EXISTING FEATURES	QUANTITY
Ball Fields	3	Playground	2
Batting Cages	2	Restroom	3
Soccer Fields	1	Nature Trails	2 miles paved, 1 mile natural walking trail
Boating (small craft)			
Sand Volleyball Courts	3	Picnic Areas	1
Tennis Courts	6	Fishing Dock	1
Fitness Course	2	Roller Hockey Court	1
Basketball Courts	3	Picnic Shelters	2

Connectivity to sidewalk or greenway
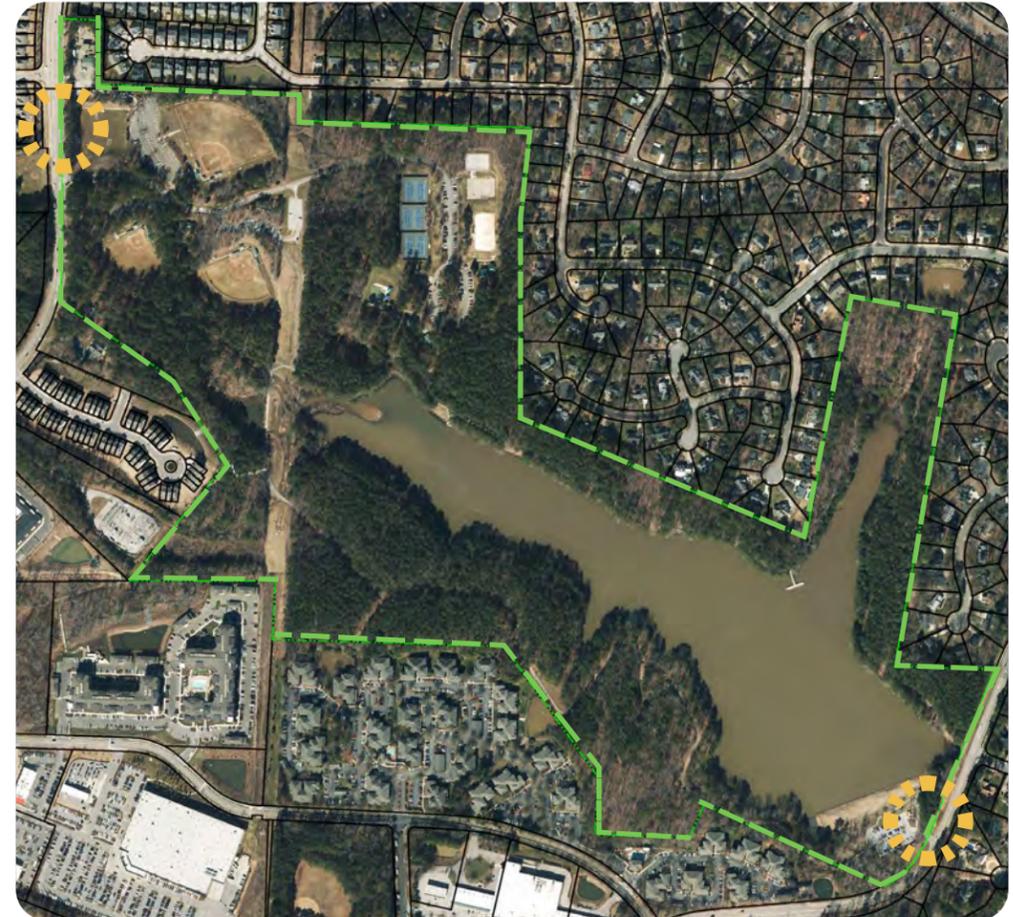
Figure 3.6 - Aerial of Apex Community Park

APEX COMMUNITY PARK (CONT.)

Recreation Offerings For All Residents

This park has community access, intergenerational features, passive and active components. Most of the overall park information is found online. Access could be improved by streamlining communication within the park, and by providing community access to wifi and power. The park could expand water safety education and access by providing a boathouse, rentals, and lessons. This park is located in an area of low social vulnerability. Park updates are needed to comply with recommendations in the ADA Compliance Assessment completed in 2021 including: ADA Parking, accessible route widths, slopes and surfacing to each amenity, consideration to reach range in all site furnishing placement, and all restrooms.

Connectivity

There are a variety of trail types: paved, natural, fitness, and biking. Additionally, it connects to the local bus system and community greenway. Park connectivity could be improved with more internal connections, pedestrian wayfinding, and streamlined communication at key park kiosk locations. Improved internal trail and sidewalk connectivity could enhance overall user access to each park feature.

Environmental Stewardship

The park requires significant maintenance due to its size. The landscape contains a mix of native wooded natural areas with non-native planting in designated areas such as parking lots. Opportunities exist for solar, LED, alternative pavement, and green stormwater infrastructure with future facilities. Additionally, this park serves as a wonderful opportunity for environmental education.

Operations Efficiency

This is a larger park and requires a higher level of maintenance. While maintenance facilities are on site, there is not room for expansion and it appears to be at capacity. The park does not require permanent staff on-site, but the various programs offered do require staff when programs are running. This park can benefit from volunteer groups, partner programs, and vendors on site.

Sense of Community

Apex Community Park has a balance of developed and undeveloped park space, and active and passive recreation amenities. These amenities provide an opportunity for community engagement and social interaction. Without a central point of arrival, it is difficult to assess park extents and time and distance to access park amenities unless you are familiar with the park. This park has two fitness courses, including the new Elevate fitness course, and a wide variety of health and wellness opportunities such as play areas, sports fields, views and vistas of the lake, and natural areas accessible by trails.

Unique to Apex: Roller Hockey and Elevate Fitness Course

Opportunities

Apex Community Park trail surrounds a wonderful water resource which could provide greater recreational opportunities to boating. Improved access to this resource would provide a unique recreation opportunity. This site serves as a central location for camps. Covered space and facilities to support camps would improve access to expand programs. Many existing features need upgrading, such as the tennis courts, batting cages, playgrounds, more seating, and streamlined signage to improve overall user experience. Trail width, connections, and surface improvements would improve user experience.

APEX COMMUNITY PARK (CONT.)

THEMES	N	S	C
Recreation offerings for all residents			
Connectivity			
Environmental stewardship			
Operations efficiency			
Sense of community			
Unique to Apex			

Figure 3.7 – *Themes Evaluation*

Figure 3.8 – *Apex Community Park Lake*

Figure 3.9 – *Multiple Signs at Apex Community Park*

Figure 3.10 – *Parking Area at Apex Community Park*

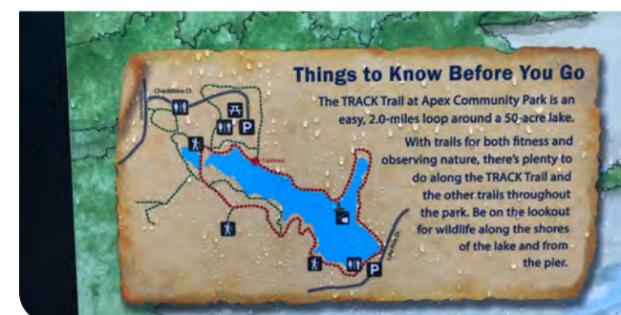Figure 3.11- *Improve accessibility to furnishings*

Figure 3.12 – *Informative signage at Apex Community Park*

Figure 3.13 – *Informative Signage at Apex Community Park*

APEX NATURE PARK & SEYMOUR ATHLETIC FIELDS

ADDRESS:
2600 EVANS ROAD, APEX, NC 27502

Zone:	Size:	Estimated Developed Acreage:
3A	160 acres	67.4 Acres

HIGHLIGHT OF EXISTING FEATURES	QUANTITY	HIGHLIGHT OF EXISTING FEATURES	QUANTITY
Lighted Multipurpose Fields	2	Picnic Shelters	2
Amphitheater	1	Multi-Age Playground	1
Disc Golf Course	1	Restrooms	2
Sand Volleyball Courts	2	Multi-Use Trails	2 miles paved, 3 miles natural walking trails
Lighted Tennis Courts	5		
Dog Park	1	Jr. Tennis/Pickleball	4
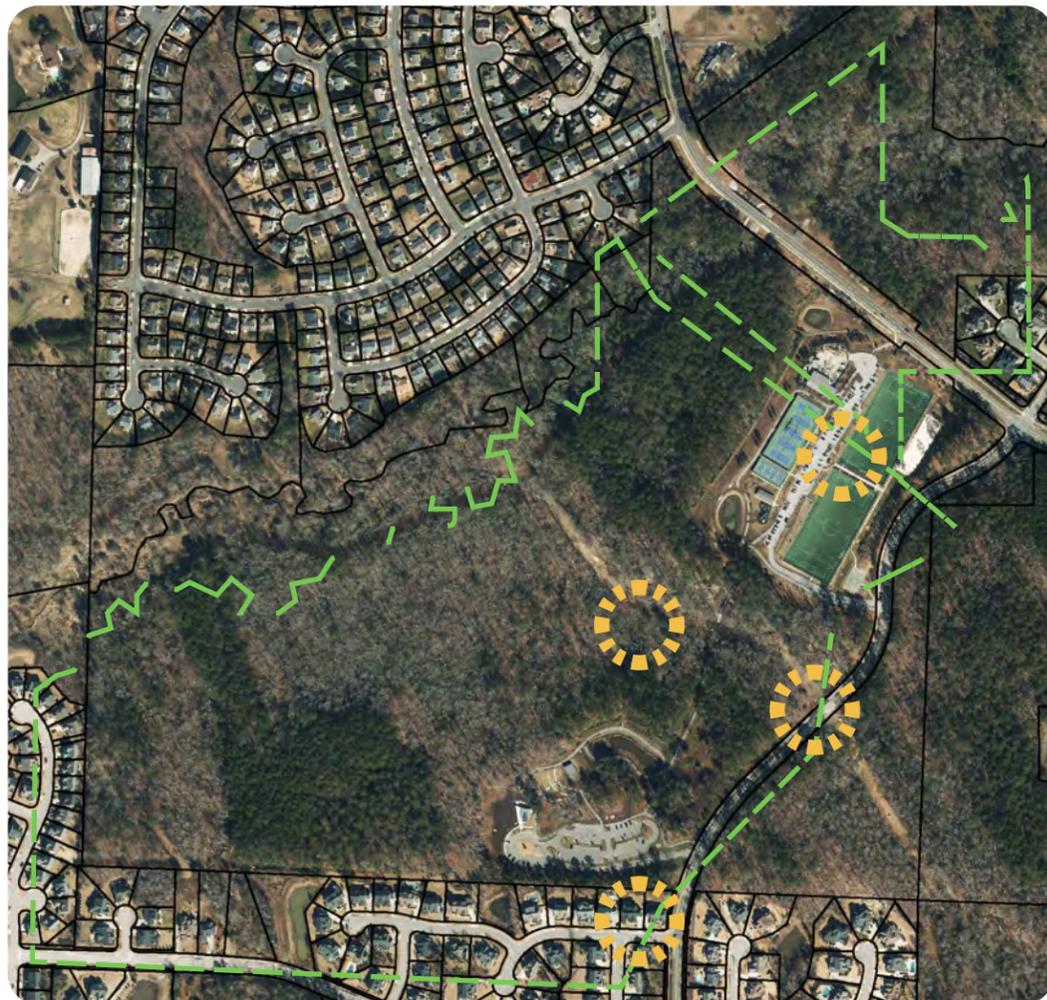
Connectivity to sidewalk or greenway

Figure 3.14 - *Aerial of Apex Nature Park & Seymour Athletic Fields*

APEX NATURE PARK & SEYMOUR ATHLETIC FIELDS (CONT.)

Recreation Offerings For All Residents
The nature portion of the park is open to all for most hours and the active portion is accessed predominantly by reservation. While reservations are posted within the park, they are conducted online and via phone reducing accessibility to those without technology. There is no pubic wifi or power present which could also serve the community. This park is located in an area of low/medium social vulnerability. Streamlining signage and park communication will improve park access. There is no transit or direct greenway link to access these parks at this time.

Greenways + Connectivity
This site is connected to the surrounding neighborhoods via sidewalk connections, the Evans Road Multi-use trail, has connection opportunities for future expansion west to the ATT, and is connected to the east to the Beaver Creek Greenway trail. The pedestrian crosswalk located at Evans Road and Apex Barbeque Road is not signalized. The site is not connected via bus or transit. It has a variety of trail types including: paved, natural surface, and concrete. The park has two distinct entrances to two very different park amenities. It is recommended the two areas should be separated by name and address on the website to match the park so those attending events (either sports or the nature park) know where to go. The vehicular circulation and allocation on the Seymour Athletic side appears to be under serving programmed space. If each programmed feature on the east side is in full use, there is not enough parking. Additionally, one point of ingress and egress makes circulation challenging at peak times.

Environmental Stewardship
The park site was designed to minimize impact and locate park development out of the floodplain. The park has many environmental education opportunities including: stormwater control measures, minimal site grading and natural erosion control measures, preservation of existing vegetation, tree canopy, and incorporated LEED components such as solar on the nature park restroom. The undeveloped portion of this site largely falls in the floodplain or is wetland. There is opportunity for education and incorporation of sustainable practices on future features, expansion, or changes.

Operations Efficiency
These sites individually require significant facility, amenity and grounds maintenance, and house a maintenance building/yard that appears to be at capacity with no evident space for expansion. The site does not require direct on-site staff, but programs and events will require staff be present and attentive. The maintenance area for this site needs to be expanded, and most likely relocated.

Sense of Community
The combination of these two sites provides a wonderful opportunity for both active and passive recreation experiences. Users have access to sun, shade, social interaction, and passive recreation. The two sites are connected via trail but are predominantly separate. Kiosk information and in-park communication could help link the two. It is important to keep them identified individually by address for athletic events and tournaments, to avoid confusion about event location.

Unique to Apex
Dog park, disc golf, and outdoor performance venue

APEX NATURE PARK & SEYMOUR ATHLETIC FIELDS (CONT.)

Opportunities

There is an opportunity to expand user access and programs by upgrading features present including the future education center, the amphitheater, dog park, improvements to tennis (shade), and wayfinding.

These parks are linked by name online. Referencing them as separate facilities would improve communication. By offering "first come first serve times" on fields and courts for non-organized groups, different users may have improved access. Parking is a challenge on the Seymour side, relocation of the maintenance area would allow for parking and circulation improvements. This site has an opportunity to serve as a trail head due to the several trails that can and will connect to the park unit. By offering additional trail features, including a map kiosk for trails, phone numbers, and connection to the Nature Park portion, would better link the overall greenway system and trails. The Nature Park can serve as a central location for education by adding support facilities and expanding and improving the amphitheater area. There is opportunity for rental, volunteers, partnerships, and vendors.

THEMES	N	S	C
Recreation offerings for all residents			
Connectivity			
Environmental stewardship			
Operations efficiency			
Sense of community			
Unique to Apex			

Figure 3.15-*Themes Evaluation*

Figure 3.16 - *Apex Nature Park Amphitheater*

Figure 3.17 - *Turn around & Maintenance area at Athletic Fields*

Figure 3.18 - *Opportunity for improved nature trail and signs*

Figure 3.19 - *Seating at Tennis Courts*

CLAIRMONT PARK

ADDRESS:
PARK ENTRANCE:
801 EAST CHATHAM STREET, APEX, NC 27502

Zone:	Size:	Estimated Developed Acreage:	Hours:
5	1.5 acres	0.4 Acres	Sunrise to 9pm

HIGHLIGHT OF EXISTING FEATURES	QUANTITY
Playground Ages 5-12	1
Picnic Shelter	1
Basketball Courts	1
Grill	1

Figure 3.20 - *Aerial of Clairmont Park*

CLAIRMONT PARK (CONT.)

Recreation Offerings For All Residents

There is not public wi-fi available to park patrons or a power source or charging station within the park. The hours the park is open to the public is listed within the park and information regarding the park is communicated within the park and online. The park is not accessible, but many of the features across age groups are inclusive, culturally relevant and welcoming. Partial use of facilities is available for general use, while some features have dedicated use times. The overall aesthetic of the park is satisfactory. All neighborhood parks in zone 5 need upgrades to access and amenities within the park. Park improvements listed in the ADA Compliance Assessment should be included in any upgrades made. This park is located in an area of high social vulnerability and listed as high priority in the ADA Compliance Assessment.

Connectivity

There is no public transit or greenway connectivity to the park. There is a sidewalk connection in the park that allows you to get from the street parking to the park features, but it is not accessible. There is no indicator identifying where you are in Apex or connectivity to other locations from the park.

Environmental Stewardship

There are no features in the park located in flood-prone areas, but features have been designed to endure natural impact. There is no green infrastructure present on site. All of the park features require consistent maintenance, including but not limited to lawn mowing and trash waste stations. The park does not educate users on sustainable actions within the park, but it does protect community natural resources such as the creek. There are opportunities to reduce land management. The park does not promote recycling.

Operations Efficiency

The majority of the park requires maintenance but on site staff is not required. This park does not allow for rental use. The park utilizes volunteers to some capacity. Contract services for maintenance, non-profit partners and dedicated staff implementing sustainable practices have not been evaluated.

Sense of Community

The park contains both passive and active recreation opportunities and there is an abundance of shade throughout the park. The park is quiet as it is in a residential setting. Seating opportunities are not present. The park allows for users to connect with nature and promotes social interaction.

Unique to Apex: n/a

Opportunities

The site provides quality access to open space in a residential neighborhood. There is an opportunity to improve walking and seating, but the park site itself provides health and wellness access with unprogrammed open space. There is also an opportunity for stormwater education and/or park feature improvements across or near the creek. Internal park connectivity and seating needs to be improved to better access the park and meet ADA Compliance Assessment recommendations.

CLAIRMONT PARK (CONT.)

THEMES	N	S	C
Recreation offerings for all residents			
Connectivity			
Environmental stewardship			
Operations efficiency			
Sense of community			
Unique to Apex			

Figure 3.21 - *Opportunity to connect use areas with sidewalk or trail*

Figure 3.22 - *Opportunity to connect use areas with sidewalk or trail*

HUNTER STREET PARK

ADDRESS:
1250 AMBERGATE STATION, APEX, NC 27502

Zone:	Size:	Estimated Developed Acreage:	Hours:
5	12 acres	10.6 Acres	6:30am to 10pm

HIGHLIGHT OF EXISTING FEATURES	QUANTITY
Softball/ Baseball Fields	1
Batting Cages	2
Turf Maintenance Fields	1
Skate Plaza	1
Multi-Age Playground	1
Restroom	1
Paved Walking Trail	0.5 miles paved trail
Picnic Shelter	1
Dog Park	1

Connectivity to sidewalk or greenway

Bus Stop
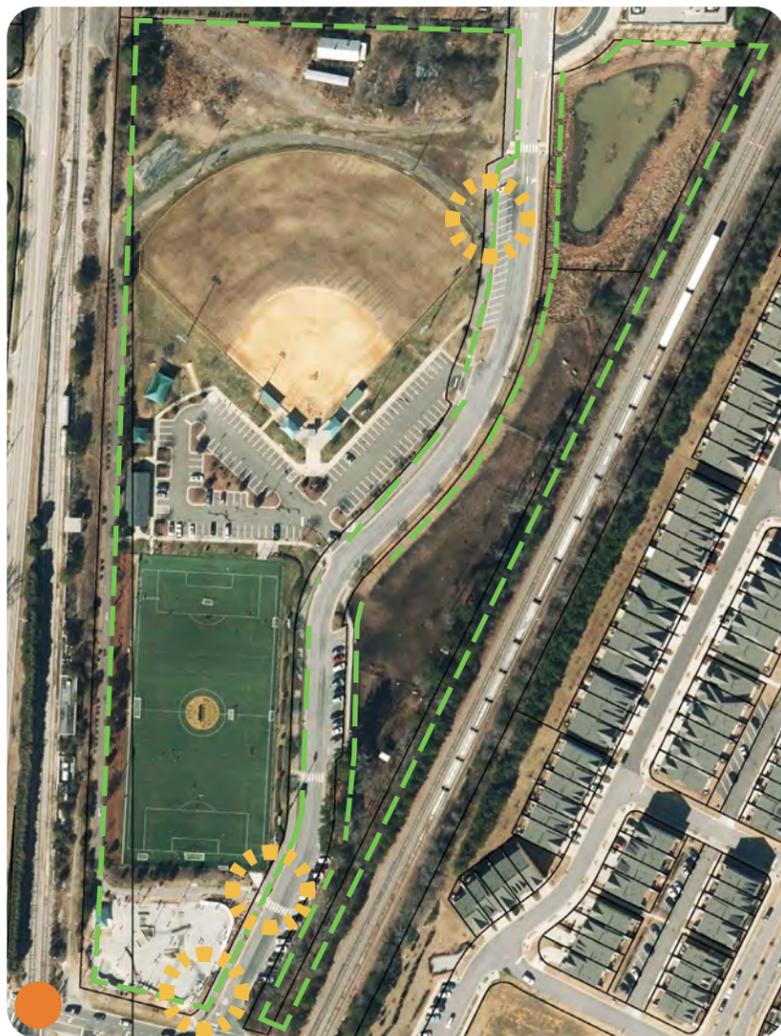
Figure 3.23 - *Aerial of Hunter Street Park*

HUNTER STREET PARK (CONT.)

Recreation Offerings For All Residents
The park site contains a combination of fee and reservation based features. Users can access the playground, skate park, and walking trail without fees or reservations, and the dog park, and athletic fields require fees and/or reservations which are conducted online. In park communication regarding reservations and/or expanded hours to the fee and reservation based features could improve user access to this centrally located park. Additionally, non-reservable amenities such as seating, picnic tables, benches, and fitness stations can offer improved access without reservation. This park is located in an area of medium social vulnerability.

Connectivity
The site sits in the core of Downtown Apex and is connected via an accessible sidewalk and located in a walkable distance to residential areas, transit, and a multi-use trail. As the site to the east develops, inclusion of a controlled intersection at Grand Central Station and Hunter Street with a trail connection to town complex could improve access and expand connectivity.

Environmental Stewardship
The site requires a high level of maintenance with a high percentage of developed acreage (88%). It incorporates LED lighting with opportunity for solar charging.

Operations Efficiency
The entire site is built upon and requires a high level of maintenance. Once the future bike track is added, there will be no unprogrammed acreage available for users. While the athletic fields are synthetic, they still require maintenance, as do all facilities present on site. This site presents opportunities for volunteers, partnerships, and vendors.

Sense of Community
Hunter street park is a predominantly active park with opportunities for passive recreation at the dog park and 0.5 mile walking trail. The site offers a combination of reservation (athletic fields) and open use (Skate park, dog park, and trail). The diversity of amenities promote multi-generational use.

Unique to Apex: Lighted turf field, skate plaza, dog park, public art, and future bike track

Opportunities
There is an opportunity to improve pedestrian connection to the Town Hall complex. Stormwater improvements have recently been made to the dog park area. Native and drought tolerant vegetation could be added to the site to improve site maintenance and increase shade. Equity could be improved on this site for non-reservable /fee days or hours and access to power and/or wifi. Public art in this space is a unique element for all user groups and could be expanded in this area and town hall complex. Having additional seating and picnicking, and potentially spray misters would also improve user experience.

HUNTER STREET PARK (CONT.)

THEMES	N	S	C
Recreation offerings for all residents			
Connectivity			
Environmental stewardship			
Operations efficiency			
Sense of community			
Unique to Apex			

Figure 3.24 – *Themes Evaluation*

Figure 3.25 – *Access to bike racks*

Figure 3.26 – *Access to shade at the skate park*
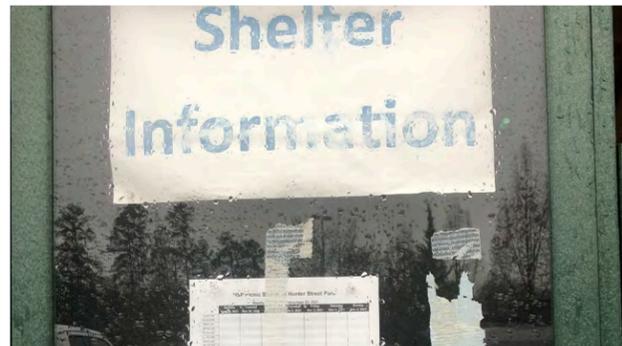
Figure 3.27 – *Opportunity to include more park information*

Figure 3.28 – *Dog park access is fee based online*

Figure 3.29 – *In park communication for playground users*

Figure 3.30 – *Transit and walkway across RR tracks and street*

JAYCEE PARK

ADDRESS:
451 NC HIGHWAY 55/WEST WILLIAMS STREET APEX, NC 27511

Zone:	Size:	Estimated Developed Acreage:	Hours:
5	23 acres	7.6 Acres	6:30am to 10pm

HIGHLIGHT OF EXISTING FEATURES	QUANTITY
Softball Fields	1
Soccer Fields	2
Batting Cages	1
Playground with Shade	1
Future Trail Head	1
Picnic Shelter	1
Restroom	1

Connectivity to sidewalk or greenway

Bus Stop

Future trailhead and parking area
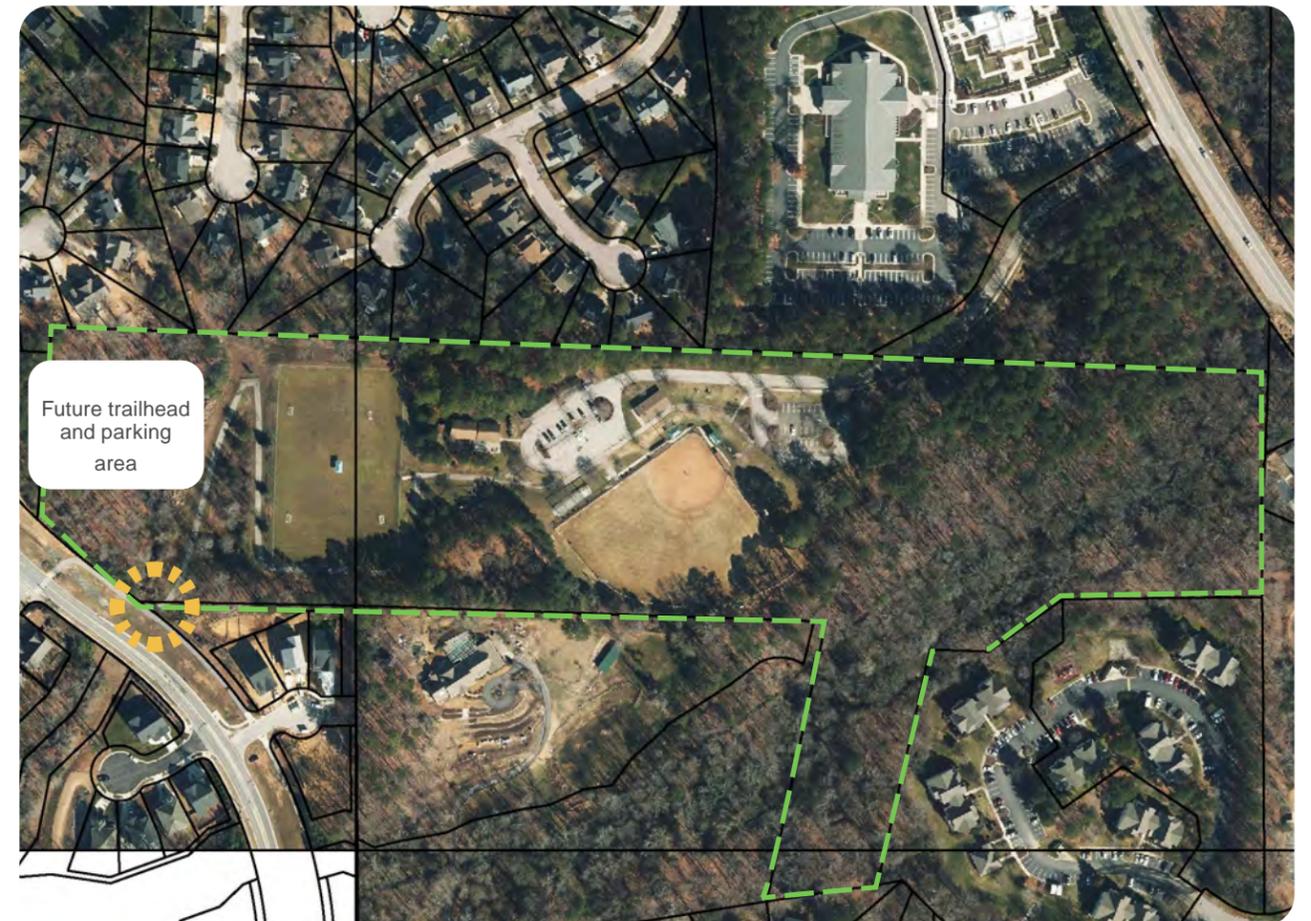
Figure 3.31 – *Aerial of Jaycee Park*

JAYCEE PARK (CONT.)

Recreation Offerings For All Residents

This site appears to have open access to most features. The fields can be reserved and information on site should be present on times available and how to reserve. Access improvements are needed to the restroom, parking, site furnishings, and routes. Adding Wifi and power as a community resource would also improve use and access. This park is located in an area of high social vulnerability.

Connectivity

The site is connected to the Beaver Creek Greenway and currently serves as a trail head and terminus. The site could connect into downtown via improved sidewalk or multi-use trail connections via the Peakway, Williams Street, and/or Hunter Street. Additional trailhead amenities at this location or future development area could expand access and improve user experience such has picnicking, bottle filling stations, bike repair, transit connections, and communication of where downtown is from the park.

Environmental Stewardship

The site is developed outside of the flood-prone areas and is surrounded by a wooded buffer area and adjacent streams. This protects developed areas from future natural impacts. As features are added or updated, sustainable practices should be incorporated such as pervious pavement, solar, LED, and environmental education.

Operations Efficiency

This park requires a high level of maintenance with the athletic fields. There are no full time staff required on site but for maintenance and programs, staff is required. Partnerships already exist with this park (the Boy Scouts) and opportunities exist for volunteers and vendors as well.

Sense of Community

This park site has a good balance of active and passive recreation, sun/shade, and social interaction opportunities. The inclusion of an in-park trail and sidewalk loop could improve the use of this park.

Unique to Apex: Future Trail head

Opportunities

The site connects to the community Beaver Creek Greenway but the kiosk is set into the site with no overall map. In park communication, expanded access to play, an internal park loop and trail head, and connections to Williams Street would improve access and visibility to this park. The site currently serves as a trail head for the major community greenway, Beaver Creek Greenway, but does not offer support facilities typically found at a trail head: bike repair, transit, regional greenway and community map, improved bathrooms, water filling stations, and information on access to food and non-reservable picnic areas. All of these items would improve visibility and access.

JAYCEE PARK (CONT.)

THEMES	N	S	C
Recreation offerings for all residents			
Connectivity			
Environmental stewardship			
Operations efficiency			
Sense of community			
Unique to Apex			
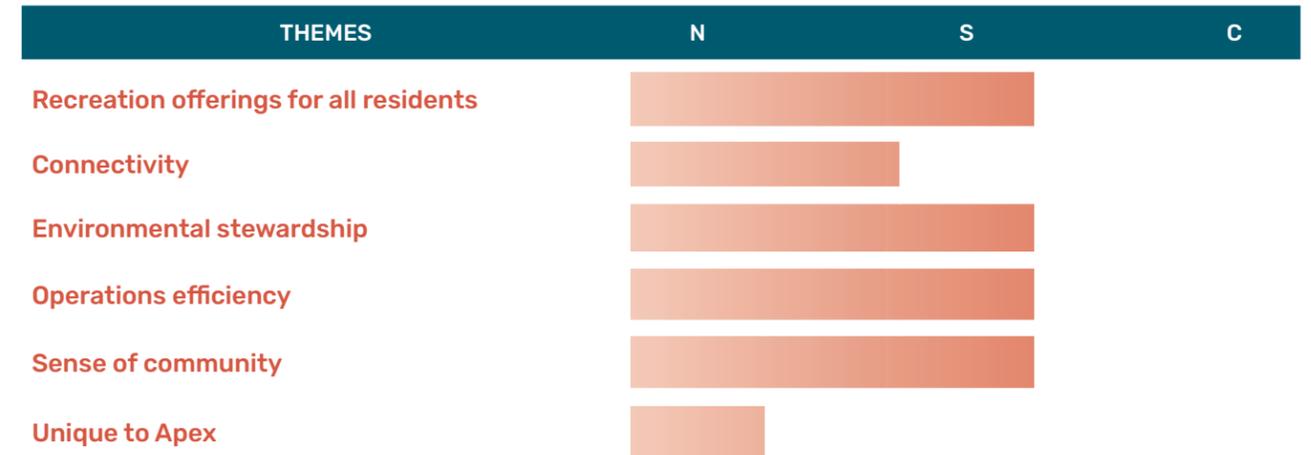
Figure 3.32- *Themes Evaluation*

Figure 3.33 - *Shelter + Restroom Building*

Figure 3.34 - *Play Area*

Figure 3.35 - Beaver Creek *Greenway Connection*

Figure 3.36 - *Baseball Field*

KELLY GLEN

ADDRESS:
1701 KELLY GLEN LANE, APEX, NC 27502

Zone:	Size:	Estimated Developed Acreage:	Hours:
3A	2 acres	0.35 Acres	Sunrise to Sunset (year round)

HIGHLIGHT OF EXISTING FEATURES	QUANTITY
Playground	1
Picnic Shelter	1
Grill	1
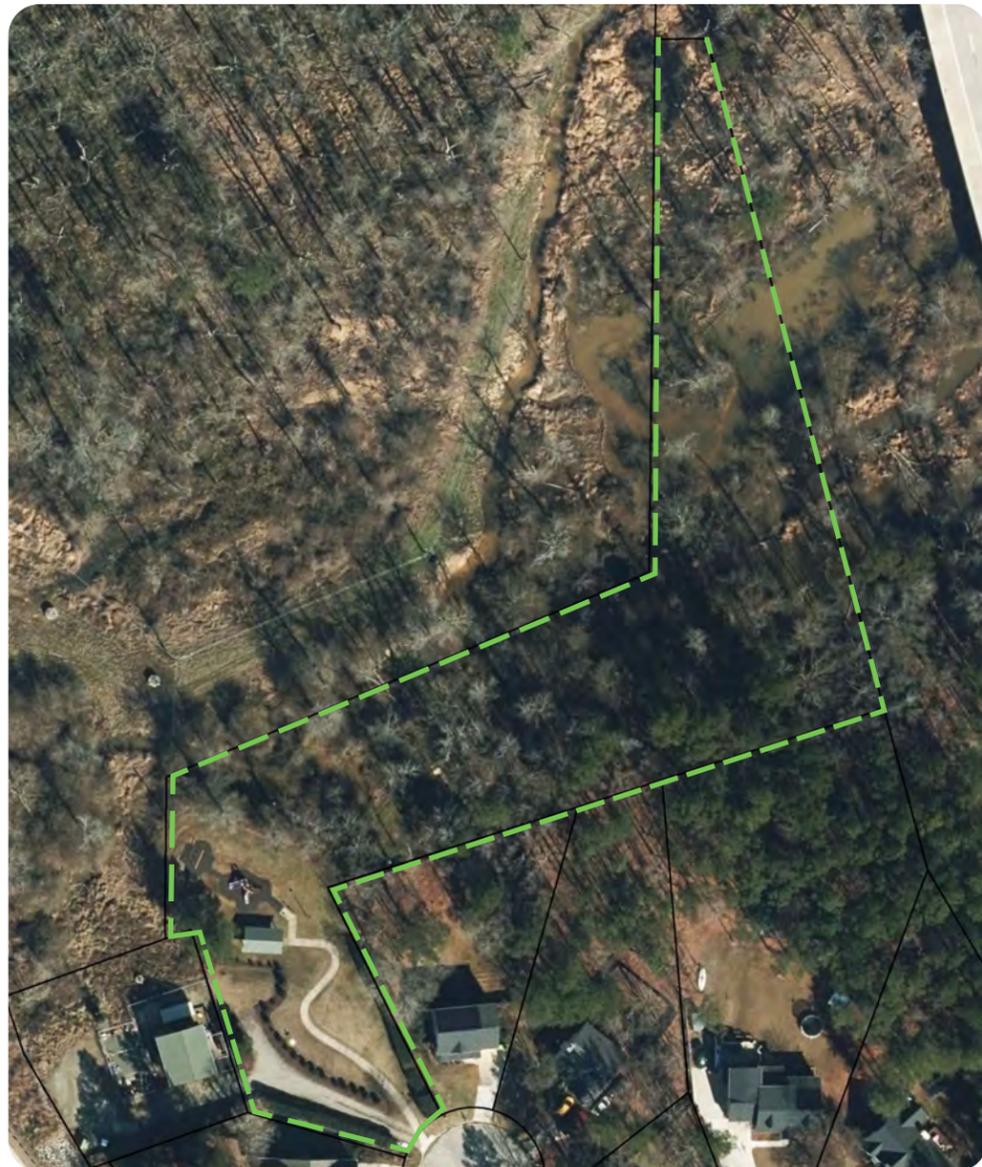
Figure 3.37 - *Aerial of Kelly Glen*

KELLY GLEN (CONT.)

Recreation Offerings For All Residents
There is not public wi-fi available to park patrons or a power source or charging station within the park. The hours the park is open to the public is listed within the park and information regarding the park is communicated within the park and online.   This park is tucked in a neighborhood and serves that immediate community only. This park is located in an area of high social vulnerability.

Connectivity
There is no public transit or greenway connectivity to the park, nor is there a sidewalk or parking. There is a sidewalk connection in the park from the roadway. There is no indicator identifying where you are in Apex or connectivity to other locations from the park. The features within the park are accessible, but the park itself is not connected to the larger system. ADA Compliance Assessment recommends site upgrades for connectivity and compliance.

Environmental Stewardship
There are features in the park located near flood-prone areas, but features have been located to reduce natural impact. There is no green infrastructure present on site. Park features require consistent maintenance and the playground equipment has been in place for over 10 years. The park does not educate users on sustainable actions within the park, but it does protect community natural resources.

Operations Efficiency
The majority of the park requires maintenance but on site staff is not required. This park does allow for rental use.

Sense of Community
The park contains passive recreation opportunities and there is a balance of sun and shade throughout the park. Seating opportunities are limited and not all picnic tables are accessible. The park allows for users to connect with nature and promotes social interaction.

Unique to Apex: - n/a

Opportunities
The park could provide floodplain education and upgrades in play opportunities and/or equipment. This park is accessed by walking only (no parking) and needs to follow recommendations in the ADA Compliance Assessment. Maintenance needs could be reduced in this park by decreasing the mowing areas, and transitioning lawn to a meadow or natural landscape. Additionally, some of the programmed spaces could be transitioned to natural areas over time.

KELLY GLEN (CONT.)

THEMES	N	S	C
Recreation offerings for all residents			
Connectivity			
Environmental stewardship			
Operations efficiency			
Sense of community			
Unique to Apex			

Figure 3.38 – *Themes Evaluation*

Figure 3.39 – *Apex Nature Park Amphitheater*

Figure 3.40 – *Shelter*

Figure 3.41 – *Opportunity for improved nature trail and signs*

Figure 3.42 – *View from the Street*

KELLY ROAD PARK

ADDRESS:
1609 KELLY ROAD, APEX, NC 27502

Zone:	Size:	Estimated Developed Acreage:	Hours:
3A	25 acres	6.2 Acres	6:30am to 10pm

HIGHLIGHT OF EXISTING FEATURES	QUANTITY
Softball Fields	1
Tennis Court	1
Junior Tennis/Pickleball Court	4
Playground Age 2-5	1
Playground Age 5-12	1
Picnic Shelter	1
Basketball Court	1
Trailhead to BC Greenway	1

Connectivity to sidewalk or greenway

Bus Stop
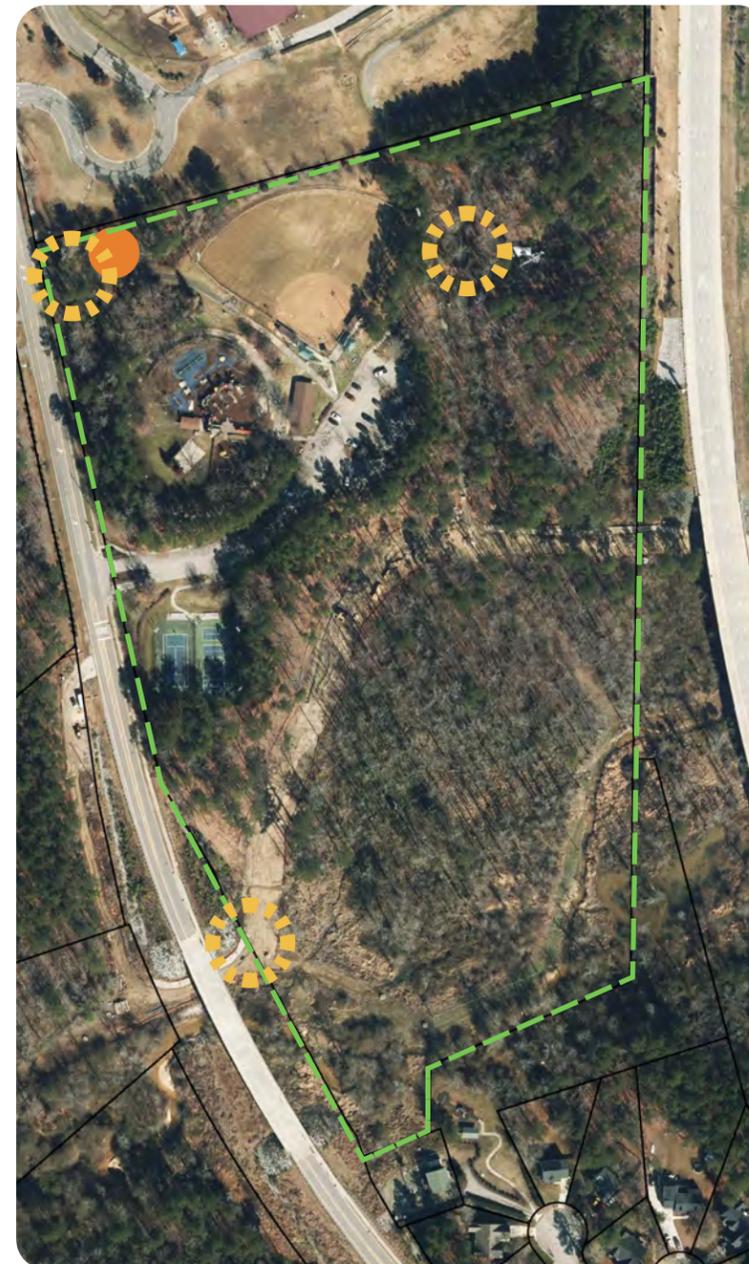
Figure 3.43 – *Aerial of Kelly Road Park*

KELLY ROAD PARK (CONT.)

THEMES	N	S	C
Recreation offerings for all residents			
Connectivity			
Environmental stewardship			
Operations efficiency			
Sense of community			
Unique to Apex			

Figure 3.44 - *Themes Evaluation*

Figure 3.45 - *KidsTowne Play Structure*

Figure 3.46 - *Tennis/ Pickleball*

Figure 3.47 - *KidsTowne Swings Area*

Figure 3.48 - Beaver Creek *Greenway Connector*

PLEASANT PARK

ADDRESS:
3400 PLEASANT PLAINS ROAD, APEX, NC 27502

Zone:	Size:	Hours:
3A	92 acres	Sunrise to 9pm

Future Park Features:

Construction continues, with final touches being added to the multi-purpose turf fields, the installation of drives and parking areas, and the installation of equipment in the 1.5 acre Enchanted Forest amenity. Utility work is nearly completed along with sports field lights, scoreboards, fencing, and retaining walls.

With all of the amenities listed below on 92 acres of property, openings and programming of facilities will be on a rolling basis after the initial opening in the early 2023.

- 6 multi-purpose fields and signature field house with staff offices, meeting space, concession area, restrooms and classrooms
- 4 baseball/ softball fields, batting cages and warm up areas, field house with staff office, meeting space, concession area, and restrooms
- 4 tennis courts, 6 pickleball courts, and 2 basketball courts
- SPLASHLANTIS water play
- 1.5 acre Enchanted Forest with numerous inclusive play villages (Kingdom in the Clouds, Reverie, Gnome's Hollow, Melody Madness, Discovery Dig, Sticks & Stones, Trollway Bridge, & Splashlantis)
- 3 Picnic Shelters with restrooms
- Grand Lawn open play area
- Cross Country Course
- Maintenance Operation Building with equipment yard
- Maintenance Storage Building
- Team gathering areas for large events
- Food truck Alley

Figure 3.49 - *Pleasant Park Plan*

SALEM POND PARK

ADDRESS:
6112 OLD JENKINS ROAD, APEX, NC 27502

Zone:	Size:	Estimated Developed Acreage:	Hours:
2	12 acres	6.25 Acres	6:30am to 10pm

○ Connectivity to sidewalk or greenway

▸ Opportunity to connect to community

HIGHLIGHT OF EXISTING FEATURES	QUANTITY
Multipurpose Turf Field	1
Paved Walking Trail	0.5 miles
Ponds	2
Playground	1
Restroom	1

▲ Figure 3.50 - *Aerial of Salem Pond Park*

SALEM POND PARK (CONT.)

Recreation Offerings For All Residents

There is no public wi-fi, power, or charging stations available to park patrons. This site could serve as an outdoor study resource due to the proximity to the school. The hours the park is open to the public are not listed within the park and information regarding the park is not clearly communicated within the park, but it is available online. The park is accessible and many of the features across age groups are inclusive, culturally relevant, and welcoming. Portions of the park require sign up for use which is done online (fields) and the remainder of the park is open to the public without reservations. This park is located in an area of low social vulnerability.

Connectivity

There is no public transit or greenway connectivity to the park. There is a sidewalk connection in the park that allows visitors to get from the parking area to the park features and to adjacent commercial space. There is no indicator identifying where you are in Apex or connectivity to other locations from the park. Walking distances are marked on the asphalt multi-use path. There is an opportunity to better connect this park to the school and adjacent neighborhood.

Environmental Stewardship

There are features within the park located out of flood-prone areas to endure natural impact. LED lighting is utilized within the park. There are features that require consistent maintenance, including but not limited to restrooms, dog, trash, and recycling waste stations. The park does not educate users on sustainable actions within the park, but it does protect community natural resources. There are opportunities to reduce land management, including the use of rain gardens. The park does promote recycling. This site could promote more with updated signage and educational measures.

Operations Efficiency

The majority of the park requires maintenance but on site staff is not required. This park does allow for rental use of the mulit-purpose fields. The usable portion of this park is almost entirely developed.

Sense of Community

The park contains both passive and active recreation opportunities with a balance of sun and shade. Few seating opportunities are present and not all picnic tables are accessible. The park allows for users to connect with nature and promotes social interaction. Park users can quantify their experience in distance as the trail mileage is marked.

Unique to Apex: N/A

Opportunities

This site has a unique resource, the pond and surrounding trail. By improving connections to the adjacent neighborhoods/school, adding seating, fitness stations, and signage it could become a more intergenerational park. The park could improve equity and connectivity by upgrading the trail and its amenities, and by proving wifi, power, and educational components. Maintaining the percentage of open space and not developing further will keep varied recreational resources for improved health and wellness and avoid increases in maintenance needs. There is also a unique opportunity to expand and partner for broader environmental education programs creating a true Outdoor Learning Environment (OLE) and parking.

SALEM POND PARK (CONT.)

THEMES	N	S	C
Recreation offerings for all residents			
Connectivity			
Environmental stewardship			
Operations efficiency			
Sense of community			
Unique to Apex			
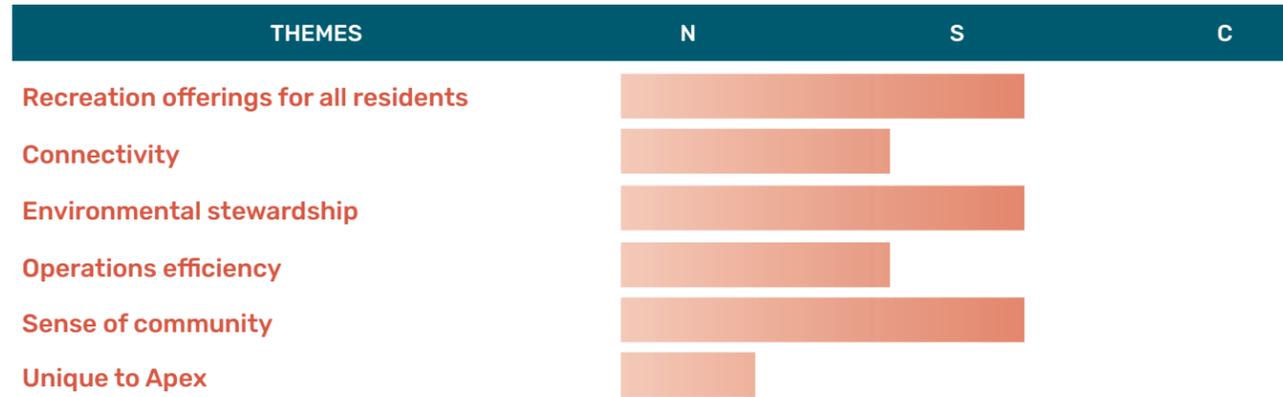
▲ Figure 3.51a –*Themes Evaluation*

▲ Figure 3.51b - *Trail Information and distance communicated*

▲ Figure 3.52 - *Newer accessible playground at Salem Pond Park*

▲ Figure 3.53 –*Opportunity for improved access to sign & seating*

▲ Figure 3.54 - *Positive in park communication*

▲ Figure 3.55 - *Access to nearby commercial area*
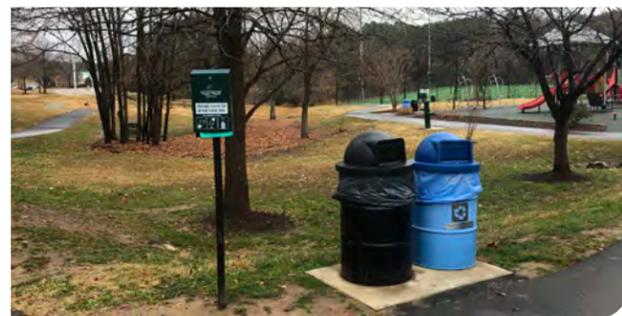
▲ Figure 3.56 - *Recycling practices and opportunities at park*

SEAGROVES FARM PARK

ADDRESS:
201 PARKFIELD DRIVE, APEX, NC 27502

Zone:	Size:	Estimated Developed Acreage:	Hours:
7	11 acres	4.25 Acres	6:30am to 9pm

◯ Connectivity to sidewalk or greenway

▲ Opportunity to connect to community
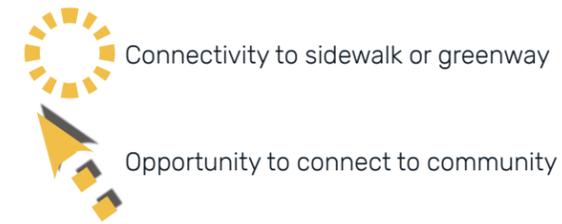
HIGHLIGHT OF EXISTING FEATURES	QUANTITY
Asphalt Walking Trail	0.4 miles
Pond with Fishing Pier	1
Shelter/Restroom Facility	1
Multi-Age Playground	1
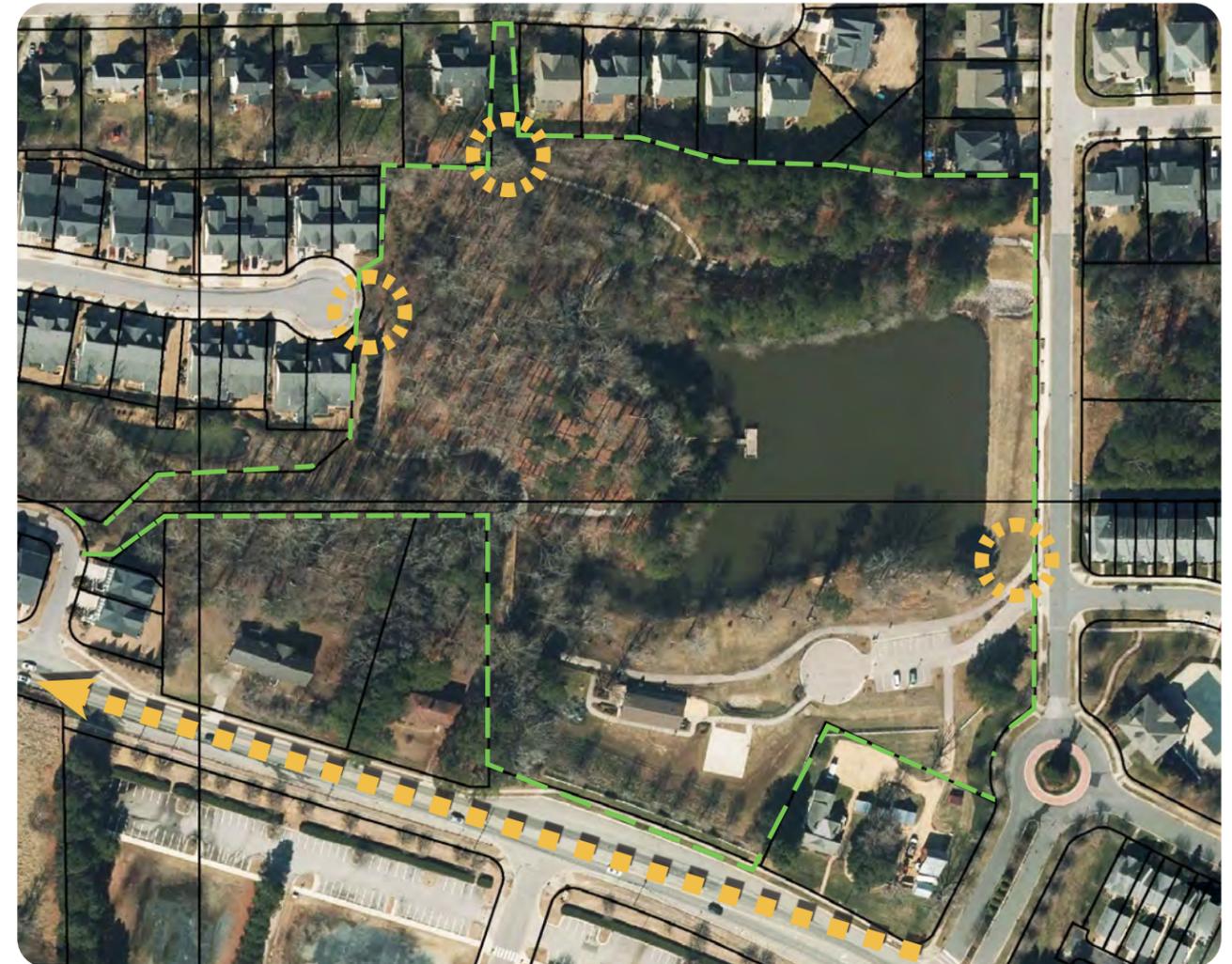
▲ Figure 3.57 - *Aerial of Seagroves Park*

SEAGROVES FARM PARK (CONT.)

Recreation Offerings For All Residents

There is not public wi-fi available to park patrons but there is a power source within the park. The hours the park is open to the public is listed within the park and information regarding the park is communicated within the park and online. The park is accessible and many of the features are inclusive across age groups, culturally relevant, and welcoming. Partial use of facilities is available for general use, while some features have dedicated use times. This park is located in an area of low social vulnerability.

Connectivity

There is no public transit or greenway connectivity to the park, but there is trail connectivity to the surrounding neighborhood. There is a sidewalk connection in the park that allows you to get from the street parking to the park features and it is accessible. There is no indicator identifying where you are in Apex or connectivity to other locations from the park. Walking distance is indicated on the asphalt and concrete multi-use path.

Environmental Stewardship

Green infrastructure present on site includes stormwater management. All of the park features require maintenance, including but not limited to dog waste stations, restrooms, and lake bank erosion. The park educates users on sustainable actions within the park and it protects community natural resources. There are opportunities to reduce mowing and recycling is promoted within the park.

Operations Efficiency

The majority of the park requires maintenance but on site staff is not required. This park does allow for rental use. The park utilizes volunteers to some capacity. There are several signs present to communicate management needs. Streamlining these methods of communication would improve the aesthetic. This is one of the few sites with a balance of developed and undeveloped park acreage. Future improvements should maintain this balance for user satisfaction and to avoid an increase in maintenance demands.

Sense of Community

The park contains passive recreation opportunities and there is a balance sun and shade throughout the park. The park is quiet as it is in a residential setting. Seating opportunities are present, but some of the benches and picnic tables are not accessible. The park allows for users to connect with nature and promotes social interaction. Park users can quantify their experience in distance as the trail mileage is marked.

Unique to Apex: n/a

> **Opportunities**
> Expansion of play and improvements to lake access near parking would protect the lake shore. There is an opportunity for more stormwater and wildlife education. This site could be better connected to the overall system via greenway and sidewalk. Improvements at driveways and intersections along Center Street would expand access to this park. Streamlining communication would improve park information.

THEMES	N	S	C
Recreation offerings for all residents			
Connectivity			
Environmental stewardship			
Operations efficiency			
Sense of community			
Unique to Apex			

Figure 3.58 -*Themes Evaluation*

Figure 3.59 - *Opportunity to provide access to site furnishings*

Figure 3.60 -*High use area on pond banks*

Figure 3.61 -*Seagroves Farm Park playground*

Figure 3.62 -*Fishing line recycling station*

Figure 3.63 - *Half basketball court*

Figure 3.64 - *Opportunity to provide tree ID and recognition*

SUE HELTON MEMORIAL PARK

ADDRESS:
703 MATNEY LANE, APEX, NC 27502

Zone:	Size:	Estimated Developed Acreage:	Hours:
5	0.25 acres	0.25 Acres	Sunrise to Sunset

Connectivity to neighborhood improvements needed

HIGHLIGHT OF EXISTING FEATURES	QUANTITY
Gazebo	1
Picnic Shelter	1
Grill	1
Playground	1

▲ Figure 3.65 - *Aerial of Sue Helton Memorial Park*

SUE HELTON MEMORIAL PARK (CONT.)

Recreation Offerings For All Residents
There is no public wi-fi available to park patrons and no public power source within the park. The hours the park is open to the public is listed within the park and information regarding the park is communicated within the park and online.   The park is only partially accessible and many of the features across age groups are inclusive, culturally relevant, and welcoming. The overall aesthetic of the park is in need of improvement due to the age of many of the features. All neighborhood parks in zone 5 appear to need upgrades. This park is located in an area of high social vulnerability.

Environmental Stewardship
The park is not located in a flood-prone areas and has not been designed to endure natural impact. Green infrastructure is not present on site. All of the park features require maintenance, including but not limited to waste stations and the gazebo.

Connectivity
There is no public transit or greenway connectivity to the park. There is a sidewalk connection in the park that allows you to get from the street parking to the park features, but the overall site is not accessible. There is no indicator identifying where you are in Apex or connectivity to other locations from the park. There is no measurable trail around the park for passive recreation or bike racks for users to park their bikes.

Operations Efficiency
The majority of the park requires maintenance but on site staff is not required. This park does allow for rental use. The park utilizes volunteers to some capacity.

Sense of Community
The park contains passive recreation opportunities and there is a balance sun and shade throughout the park. The park is quiet as it is in a residential setting.   Seating opportunities are present and most are accessible. The park allows for users to connect with nature and promotes social interaction.

Unique to Apex: n/a

Opportunities
The park has a significant amount of signage for serving as a neighborhood park. Streamlining communication within the park would improve the aesthetic. The playground and gazebo have been in place for over 10 years. Upgrades to the playground and gazebo, sidewalk access and circulation, would improve user experience and help meet ADA Compliance Assessment recommendations.

SUE HELTON MEMORIAL PARK (CONT.)

THEMES	N	S	C
Recreation offerings for all residents			
Connectivity			
Environmental stewardship			
Operations efficiency			
Sense of community			
Unique to Apex			
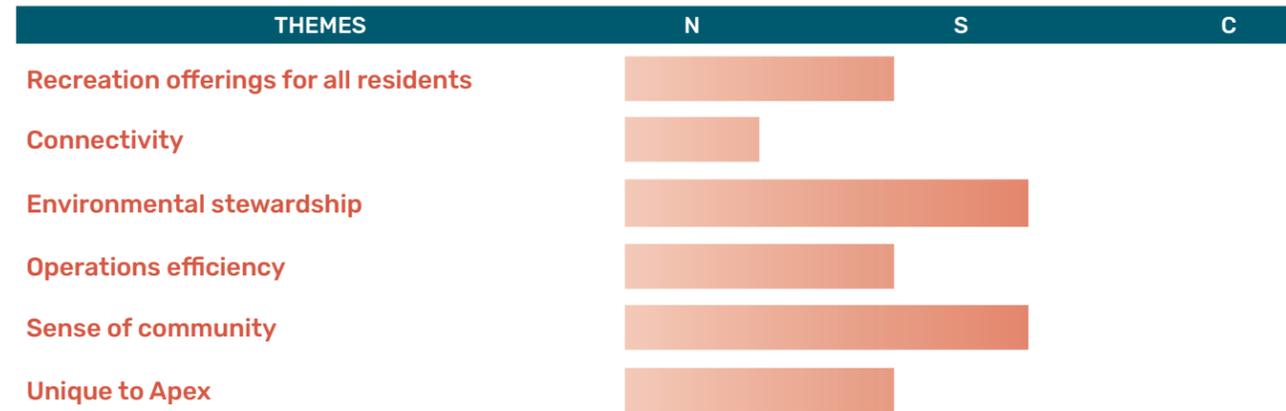
Figure 3.66 –*Themes Evaluation*

Figure 3.67 - *Several sign types and information*

Figure 3.68 - *Accessible seating and opportunity to gather*

Figure 3.69 –*Community gazebo*

Figure 3.70 - *opportunity for grilling*

Figure 3.71 - *Community signage for park dedication*

Figure 3.72 - *Varied park signs at use areas*

WEST STREET PARK

ADDRESS:
201 PARKFIELD DRIVE, APEX, NC 27502

Zone:	Size:	Estimated Developed Acreage:	Hours:
5	1.3 acres	0.75 Acres	Sunrise to Sunset

Connectivity to sidewalk or greenway

Opportunity to connect to community
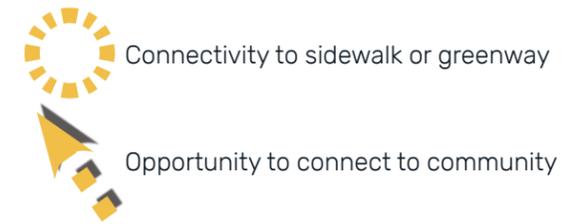
HIGHLIGHT OF EXISTING FEATURES	QUANTITY
Picnic Shelter	1
Grill	1
Playground Ages 5-12	1
Basketball Court	1

Figure 3.73 –*Aerial of West Street Park*

WEST STREET PARK (CONT.)

Recreation Offerings For All Residents

There is no public wi-fi available to park patrons and no public power source within the park. The hours the park is open to the public is listed within the park and information regarding the park is communicated within the park and online. The park is partially accessible and many of the features are inclusive across age groups, culturally relevant, and welcoming. The overall aesthetic of the park is in need of improvement. All neighborhood parks in zone 5 need upgrades. This park is located in an area of high social vulnerability and is listed as a high priority in the ADA Compliance Assessment.

Connectivity

There is no direct public transit or greenway connectivity to the park. There is a sidewalk connection in the park that allows park visitors to get from the street parking to the park features while there is an accessible path from parking lot to the shelter and play area, the ADA parking surface itself is gravel which can be difficult for mobility assisted devices to maneuver. There is no indicator identifying where you are in Apex or connectivity to other locations from the park.

Environmental Stewardship

The park is not located in a flood-prone area and has been designed to endure natural impact. Green infrastructure is not present on site. All of the park features require consistent maintenance. The park does not educate users on sustainable actions within the park and it partially protects community natural resources. There are no opportunities to reduce land management and recycling is not promoted within the park. There is a steep slope and the site is partially wooded.

Operations Efficiency

The majority of the park requires maintenance but on site staff is not required. This park does allow for rental use.

Sense of Community

The park contains passive and active recreation opportunities and there is a balance of sun and shade throughout the park. Traffic noise can be heard while in the park. Minimal seating opportunities are present and none are accessible. The park allows for users to connect with nature and promotes social interaction.

Unique to Apex: The park is located within the only historic African American neighborhood.

Opportunities

The park features have been in place for a long time and upgrades are needed. Inclusion of sustainable practices could be incorporated into future design features. This site is very close to downtown and can connect via sidewalk and Harwood Street. Improvements to crossings and connections would better connect this park to downtown, the overall system, and transit service on Williams Street. Despite the central location, this site could provide better connections via sidewalk and internally to the park features. Natural elements such as the hillside could serve as assets to future park features. Improvements to access and seating would promote intergenerational use.

THEMES	N	S	C
Recreation offerings for all residents			
Connectivity			
Environmental stewardship			
Operations efficiency			
Sense of community			
Unique to Apex			
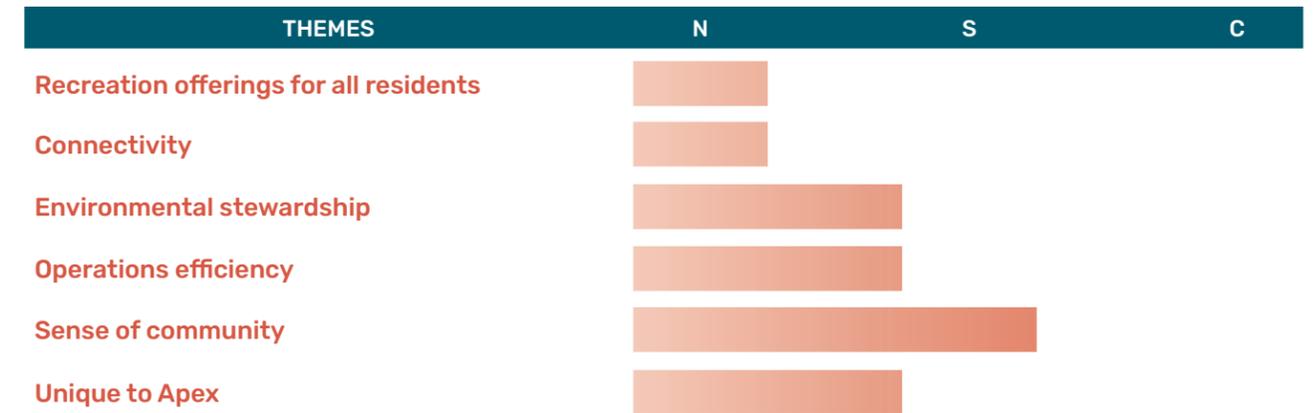
Figure 3.74 - *Themes Evaluation*

Figure 3.75 - *Seating at Tennis Courts*

Figure 3.76 - *Long-view of park with basketball court in background*

JOHN M. BROWN COMMUNITY CENTER

ADDRESS: 53 HUNTER STREET

Zone:
5

Size:
44,147 SF

Hours:
M-F 8am to 9pm, Sat. 1pm-6pm,
Closed Sundays June through August

Overview

The Apex Community Center is approximately 44,147 square feet and hosts many of the Town of Apex programs. It contains two gymnasiums, offices, storage, game room, kitchen, and classrooms. It is part of the overall town campus and serves as a central hub for community information regarding parks and programming.

A recent Town of Apex Accessibility assessment was completed and outlines specific recommendations regarding amenities within the building to improve overall access.

Figure 3.77 - *Parking area*

Figure 3.78 - *Art installation*
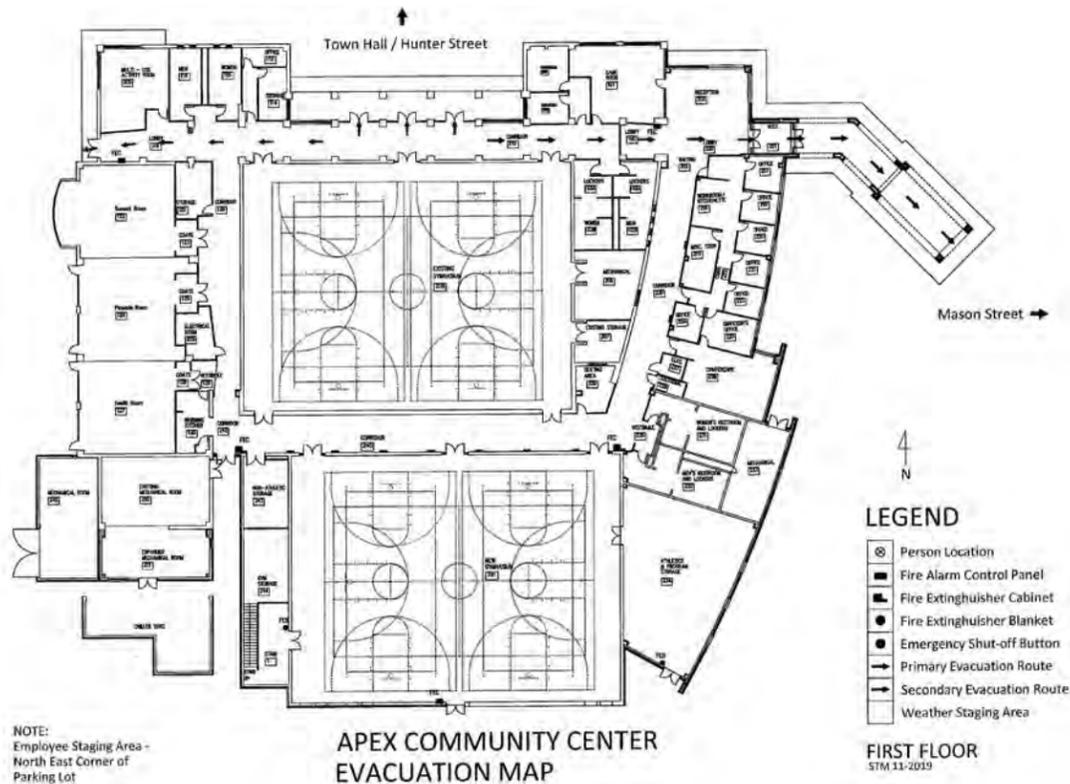
Figure 3.79 - *Community Center Floor Plan*

APEX SENIOR CENTER

ADDRESS: 62 HUNTER STREET

Zone:
5

Size:
28,000 SF

Hours:
M-F 8am to 9pm, Sat. 9am-2pm, Closed Sunday

Overview

The Apex Senior center is a two-story, 28,000-square-foot structure containing multi-purpose classrooms, exercise rooms, a fitness room with cardio equipment, an arts and crafts room, and pottery room with kiln. It also features a reception area, catering kitchen, informal activity space, office space for outside agency consultation and programs, and extensive rental space.

The Apex Senior Center features several meeting rooms available to rent that can accommodate from 45 to 145 people in each room. Collapsible partitions allow for a function as large as 400 people. All meeting rooms are equipped with audio-visual equipment, tables and chairs.

The building has several environmental features including solar, stormwater features, louvered windows/shading system, and pervious pavement. None of these features were visibly discussed online or within the building.

Figure 3.80 - Senior Center *Floor Plan*

Figure 3.81 - *Rock Swale*

Opportunity for interpretive and educational signage about the environmental stewardship incorporated into the site and building design

Figure 3.82 - *Patio space providing seating options*

Figure 3.83 - Senior Center *Floor Plan*

HALLE CULTURAL ARTS CENTER

ADDRESS:
237 N. SALEM STREET, APEX, NC 27502

Zone:	Size:	Hours:
5	14,000 SF	M-F 9am to 6pm, Sat. 9am–1pm, Closed Sunday

Overview

Halle Cultural Arts Center is located in historic downtown and has over 14,000 sf of amenities including a 150 seat theater, three galleries, a kitchen, studio classroom, and dressing room space. It is used for productions, events, and rentals.

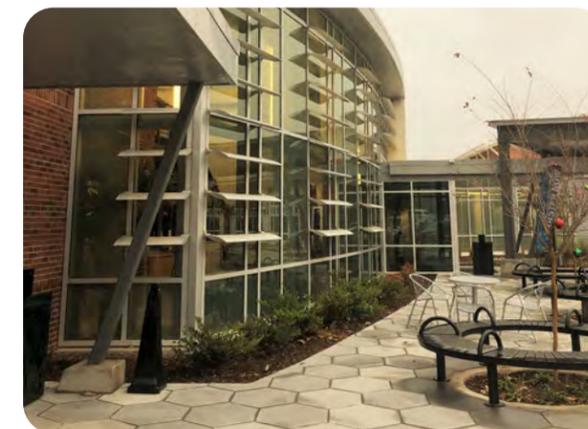A recent Town of Apex Accessibility assessment was completed and outlines specific recommendations regarding amenities within the building to improve overall access. Primarily, improvements are needed to and from parking, and to the entrance of the facility from these routes. These items have not been implemented yet.

▲ Figure 3.84 – *Floor Plans*

OVERALL ASSESSMENT SUMMARY

Recreation Offerings For All Residents

The Apex Park system has done a good job planning for and evaluating needs of its population. The population growth places demand on the system making it even more important to have a structure in place to provide equitable access to the resources within the system. The town is divided in to park zones. As part of equity we evaluate distribution and quality within the zones. The Town has positively responded to outward growth and is at a point where older centrally located parks (zones 5 and 2 and Kelly Road located in 3A) need to be upgraded in order for these areas to have access to the recreation resources needed. Six of the zones do not contain park units, two of those zones contain purchased land for future park units, and one of these zones has an approved development with future park land dedication.

The inclusion of power, solar charging stations, and wifi within the system could expand user access with improved access to technology. These community resources have come into higher demand with the pandemic so that the community can have access to information, work, and school within public spaces.
Access to undeveloped space is also higher in demand over the last two years due to the pandemic. This, in addition to the high growth Apex has seen, increases the priority on future parkland, and undeveloped park space that is usable. Many of the parks are developed to capacity and may require fee based use or reservations. Opportunity exists system-wide to convey information in park and online so that all users have access to park information. Additionally, there is opportunity to provide "free resident days" for fee based features such as the dog parks, or reservation based fields.

As improvements and upgrades occur it is important to address the demands of inter-generational needs. By providing amenities such as seating, fitness stations, and shade where none currently exists you can expand access to multiple age groups and needs.

Many of the recommendations presented in the ADA Compliance Assessment were located in parks that are considered to have high social vulnerability. These recommendations should be completed as part of the upgrades that occur in these park units and indoor spaces in order to improve overall access to park resources.

Connectivity

Newer parks appear to have improved internal connectivity and connectivity to nearby resources. All older parks are in need of internal and external park trail and sidewalk improvements. Transit routes should be evaluated to include nearby stops to larger park sites where they do not currently exist.

All parks could benefit from improved in park and online communication and wayfinding. Information presented should be universal, accessible, and located for improved user experience. Information should include where you are in the park, where you are regionally, how long a trail is in mileage and time, and what amenities are present. Many of the parks are in need of internal circulation upgrades to meet the needs outlined in the ADA Compliance Assessment report conducted for the Town of Apex.

Environmental Stewardship

Apex has done a ton of preservation of resources and placing developed park amenities out of areas prone to natural impact such as avoiding steep slopes, staying out of floodplains and floodways, and maintaining vegetation. There could be improved environmental practices by using native vegetation in planted areas, following best practices for construction, providing reduced developed parkland in developable areas, and ensuring all future parks follow a thorough master planning process.

Where these approaches have been done, Apex should celebrate those practices by using these as opportunities for environmental education. Future park development can include green infrastructure such as pervious pavement, LED lighting, solar, sustainable materials, and stormwater BMP's to help minimize impact and maintenance demand.

Maintenance practices should also incorporate ways to reduce impact as part of their regular evaluation tools management practices.

Operations Efficiency

The majority of the Town Park Sites are built to capacity. The developed versus undeveloped percentage is high. At first glance the undeveloped acreage appears to be balanced, however, in evaluating that acreage, the majority of undeveloped acreages contains wetlands, steep slope, and/or floodplain/floodway. Future park site development can help avoid higher maintenance practices by including a balance of programmed and unprogrammed park space. The developed park acreage contributes to a high level of maintenance needs placing higher demand on staffing that is present creating higher user demand on amenities resulting in wear and overuse. The parks appear to be very well maintained compared to the demand placed upon them. All existing park maintenance sites are at capacity for material and equipment storage and staffing needs.

Sense of Community

Apex has a wide variety of park resources including community buildings, passive parks, active parks, and an active greenway system. Apex's rapid increase in growth is placing high demand on the need for access to these resources. The majority of existing parks are built to capacity, and parks that have been in place for a while are all in need of upgrades. Improving opportunities for internal connectivity, communication of resources (in park and online), and offering varied amenities to existing features such as shade, seating, and fitness can improve user experience, and expand opportunity for use of park sites within the Apex system.

Unique to Apex

One of the guiding principles from community engagement is a desire to provide recreation offerings that are "unique to Apex." This theme not only represents park features unique to Apex, but also features that celebrate Apex's identity. When conducting the site inventory we asked, "Is this park unit providing recreation resources unique to the Town of Apex?", and, if not, "How can we make parks and recreation offerings unique to Apex?" Of the 12 parks/neighborhood parks within the Town, 4 of the parks provide features that are "unique to Apex." As older existing parks are upgraded, and newer parks are brought on line, the goal of providing resources that are "Unique to Apex" needs to be incorporated and planned for.

04 | PROGRAM ASSESSMENTS

The team performed a Recreation Program Assessment (January 2022) of the services offered by the Town of Apex Parks, Recreation & Cultural Resources Department. The assessment offered an in-depth perspective of program and service offerings and helped identify strengths, challenges, and opportunities regarding programming. The assessment also assisted in identifying core programs, program gaps within the community, key system-wide issues, areas of improvement, and future programs and services for residents and visitors.

METHODOLOGY

The project team based these program findings and comments from a review of information provided by the Department including program descriptions, financial data, website content and discussions with staff. This report addresses the program offerings from a systems perspective for the entire portfolio of programs.

KEY FINDINGS

In order to help achieve the Department's mission, Apex Parks, Recreation & Cultural Resources provides a broad range of recreation and leisure programming for all ages and abilities. Currently, the Department offers numerous programs/activities to the Apex community. These program offerings are supported with dedicated spaces which include:

- (6) Ball Diamonds
- (1) Community Center
- (1) Cultural Arts Center
- (7) Multi-Purpose Fields
- (12) Picnic Shelters
- (5) Sand Volleyball Courts
- (17) Tennis Courts
- (1) Senior Center
- (6) Pickleball Courts
- (11) Parks

Note: Pleasant Park is a 92-acre park with several amenities including:

> (6) Multi-Purpose Turf Fields
> (4) Ball Diamonds
> (4) Tennis Courts,
> (6) Pickleball Courts
> (2) Basketball Courts
> (1) Sand Volleyball Court
> (3) Picnic Shelters
> (1) Cross Country Course

Figure 4.2 - *Pleasant Park Master Plan*

Program Assessment Overview

Below are some overall observations that stood out when analyzing the program assessment sheet:

> Overall, the program descriptions effectively communicate the key benefits and goals of each Core Program Area.

> Age segment distribution is aligned with the community's current population but needs to be monitored annually to ensure program distribution continues to match Apex's demographics.

> Program lifecycles: Approximately 8 percent of the system's current programs are categorized in the Introduction Stage, while only 2 percent of programs fall into the Decline Stage. A complete description of Lifecycle Stages can be found on page 9.

> The Town's volunteer program allows residents and organizations to get involved and give back to the community through various opportunities. There is a need for developing a volunteer program and a volunteer coordinator position, specifically for the PRCR Department.

> From a marketing and promotions standpoint, the staff utilizes a variety of marketing methods when promoting their programs including: printed and online program guides, the Town's website, smartphone apps, flyers/brochures, direct mail, email blasts, marquee signs, in-facility signage, print newsletters, QR codes as well as various social media channels as a part of the marketing mix.
>   – The Department would benefit from identifying Return on Investment (ROI) for all marketing initiatives.
>   – There is an opportunity to increase the number of cross-promotions.

> Currently, the Department utilizes a couple of customer feedback methods (pre-program surveys and post-program surveys). These are both useful tools that the Department is encouraged to use on a more consistent basis. The Department should begin implementing additional customer feedback tools ("lost customer" surveys, focus groups, statistically valid surveys, on-site surveys, and other customer relations programs). Collecting and incorporating user feedback is an essential step in order to measure and track key performance indicators over time.

> Pricing strategies across each Core Program Area are rather sporadic. Currently, the most frequently used strategies are family or household status, resident/non-resident rates, cost recovery goals and customer's ability to pay. These are good practices and should be continued in addition to implementing some new pricing strategies which can be found on page 14. Furthermore, it is essential to develop a formal pricing policy in order to achieve a more consistent approach to pricing strategies and understanding current Cost-of-Service.

> Financial performance measures such as cost recovery goals are currently being utilized on a Core Program Area level. Moving forward, it is recommended for staff to begin tracking cost recovery of individual programs, and the staff should factor in all direct and indirect costs pertaining to programming. A focus on developing consistent earned income opportunities would be beneficial to the Department's overall quest for greater fiscal sustainability.

Core Program Areas

To help achieve the mission, it is important to identify Core Program Areas based on current and future needs to create intent to focus around the specific program areas of greatest importance to the community. Public recreation is challenged by the premise of being all things to all people. The philosophy of the Core Program Area is to assist staff, policy makers, and the public to focus on what is most important to the community. Program areas are considered as Core if they meet a majority of the following criteria:

> The program area has been provided for a long period of time (over 4-5 years) and/or is expected by the community.
> The program area consumes a relatively large portion (5 percent or more) of the agency's overall budget.
> The program area is offered 3-4 seasons per year.
> The program area has wide demographic appeal.
> There is a tiered level of skill development available within the program area's offerings.
> There is full-time staff responsible for the program area.
> There are facilities designed specifically to support the program area.
> The agency controls a significant percentage (20 percent or more) of the local market.

Existing Program Areas

In discussions with the Department staff, six Core Program Areas were identified and are currently being offered.

Figure 4.3 - *Apex Core Program Areas*

ARTS/CULTURE		**Description:** Programming offered for all ages in all areas of the arts. This includes (but is not limited to) dance, visual arts, theater arts (drama), culinary arts, crafts, and music. **Goals:** Provide quality arts programs for members of the community to explore creative outlets.	**Sample of Offerings:** › Art Exhibits › Ballet Performances › Classical Concert › Snapology Classes › Theater Plays

ATHLETICS		**Description:** Sports leagues and programs offered for youth and adults. **Goals:** Provide the opportunity for sports skill development, sportsmanship, team play and fun in a participation-based atmosphere.	**Sample of Offerings:** › Adult Basketball Leagues › Adult Softball Leagues › USTA Tennis Leagues › Youth Lacrosse Clinic › Youth Soccer Leagues
FESTIVALS/SPECIAL EVENTS/ SPECIAL INTERESTS		**Description:** Special events occurring at Town Parks, Facilities, Town Campus, and Historic Downtown. **Goals:** Provide a diverse range of entertainment and education opportunities in a larger setting than traditional recreational activities	**Sample of Offerings:** › Fireworks and 4th of July › Christmas Tree & Wreath Auction › Indigenous Peoples Day › Juneteenth › Outdoor Concerts & Movies
NON-ATHLETIC CLASSES		**Description:** Variety of non-athletic programming offered to spark the interest of every age. **Goals:** Provide new programming areas for people to explore a range of interest. Most of these programs are offered at a low cost for users.	**Sample of Offerings:** › Basic Yoga › Fun Days Summer Camp › Pilates › Youth Nature Workshops › Zumba
SENIORS		**Description:** Programming offered to those ages 55+ **Goals:** Provide quality opportunities for education, physical exercise, social interaction, and mental stimulation to the population of 55+ residents or participants.	**Sample of Offerings:** › Art Programs › Day Trips › Fitness Programs › Pickleball › Social Programs

ARTS/CULTURE		**Description:** Programming offered for all ages in all areas of the arts. This includes (but is not limited to) dance, visual arts, theater arts (drama), culinary arts, crafts, and music. **Goals:** Provide quality arts programs for members of the community to explore creative outlets.	**Sample of Offerings:** › Art Exhibits › Ballet Performances › Classical Concert › Snapology Classes › Theater Plays

Core Program Area Recommendations

Based upon the observations of the planning team and demographic and recreation trends information, the existing Core Program Areas provide a generally well-rounded and diverse array of programs that could serve the community at present. Department staff should evaluate Core Program Areas and individual programs, ideally on an annual basis, to ensure offerings are relevant to evolving demographics and trends in the local community.

Based on community input from the statistically valid survey, residents have a "need" for more community-oriented special events and festivals, specifically outdoor movies and concerts. Additionally, residents would like to see supplemental fitness/wellness and art programs added to what is currently being offered. All three of these program areas were ranked as "high priority" for residents who participated in the statistically valid survey.

Figure 4.4 - *Special Events and Festivals*

Potential New Core Program Area Recommendations

The Department should explore adding additional Core Program Areas to assist in fulfilling any existing unmet needs of the community. Based on input gathered through ETC Institute's statistically valid survey, Apex residents have a strong "need" for some additional programs outside of what is currently being offered. Some new program areas the Department should consider moving forward with include:

› Aquatics (E.g., Learn to Swim, Water Aerobics and other Water Activities)
› Water Sports (E.g., Paddle board yoga, Fishing, Kayaking and other Outdoor Water Activities)

Both of these program areas scored within the top 5 highest priorities of or by Apex Residents and should be considered by Department staff when contemplating new programs to introduce. It should be noted that this would require new facilities/amenities to be built and/or exploring partnerships with local organizations.

Figure 4.5 - *Apex Current Recreation Program PIR*

For this report, an Age Segment Analysis was completed by Core Program Area, providing an over-arching view of the age segments served by different program areas, and displaying any gaps in segments served. It is also beneficial for Departments to perform Age Segment Analysis by individual programs, in order to gain a more nuanced view of the data. Based on the age demographics of the Town, current programs seem to be well-aligned with the community's age profile. With the Town's median age being 37 years old, it is quite fitting that the adult age segment (18-54) is being fulfilled with appropriate recreational an cultural programming.

Apex's 35-54-year-old segment is the largest age group in the population, so ensuring the Town provides ample programming dedicated to middle-aged adults will be instrumental for the success of the Department. Potential program areas the Department could add/expand upon include adult focused special events/festivals, adult fitness/wellness classes, and non-athletic and art programs, which all scored as "High Priority" in the community survey and are popular amongst the 35-54 year-old age segment.

Staff should continue to monitor demographic shifts and program offerings to ensure that the needs of each age group are being met. Establishing a plan including which age segment to target, what message to convey, and which marketing method(s) to use, along with creating the social media campaign and determining what to measure for success before allocating resources towards a particular effort, would achieve best practices in programming. In addition to catering to all age segments, it is also crucial to ensure various populations feel included. Currently, the Department does an excellent job of filling the needs of a diverse range of user groups (Disabled, Latino, Persons of Color, LGBTQ+ Community, Women, and other minority and often underserved populations).

PROGRAM STRATEGY ANALYSIS

Age Segment Analysis

The table below depicts each Core Program Area and the most prominent age segments they serve. Many Core Program Areas serve multiple age segments, Primary (noted with a 'P') and Secondary (noted with an 'S') markets are identified:

AGE SEGMENT ANALYSIS						
Core Program Area	Preschool (5 & Under)	Elementary (6-12)	Teens (13-17)	Adult (18-54)	Senior (55+)	All Age Segment Programs
Arts & Culture	P	P	P	P	P	P
Athletics	P	P	P	P		
Festivals/Special Events/Special Interest	S	S	S	S	S	P
Non-Athletic Classes	P	P	S	S		
Seniors					P	
Specialized Recreation and Inclusion Services	S	P/S	P	P		S

Figure 4.6 - *Apex Program Priority by Age Segment*

Figure 4.7 - *Apex's Current Recreation Offerings*

Program Lifecycle

A Program Lifecycle Analysis involves reviewing each program offered by the Department to determine the stage of growth or decline for each. This provides a way of informing strategic decisions about the overall mix of programs managed by the agency to ensure that an appropriate number of programs are "fresh" and that relatively few programs, if any, need to be discontinued. This analysis is not based on strict quantitative data, but rather it is based on staff members' knowledge of their program areas. The following table shows the percentage distribution of the various lifecycle categories of the Town's programs. These percentages were obtained by comparing the number of programs in each individual stage with the total number of programs listed by staff members.

LIFECYCLE	DESCRIPTION	ACTUAL PROGRAM DISTRIBUTIONS		RECOMMENDED DISTRIBUTION
Introduction	New Programs;modest participation	8%		
Take-Off	Rapid participation growth	19%	81%	50%-60% Total
Growth	Moderate, but consistent participation growth	54%		
Mature	Slow participation growth	13%	13%	40%
Saturation	Minimal to no participation growth; extreme competition	4%		
Decline	Declining participation	2%	6%	1%-10% Total

Figure 4.8 - *Apex Program Lifecycle Distribution*

The Lifecycle Analysis depicts a slightly skewed program distribution. Approximately 81 percent of all programs fall within the beginning stages (Introduction, Take-Off, and Growth). It is recommended to have 50-60 percent of all programs within these beginning stages because it provides the Department with an avenue to energize its programmatic offerings. Eventually these programs will begin to move into the mature stage and they will ensure the pipeline for new programs is there. It is key to continue adding new programs in the Introduction stage as those programs are meant to progress through the lifecycle stages.

According to staff, 13 percent of all program offerings fell into the Mature Stage. This stage anchors a program portfolio and it is recommended to have roughly 40 percent of programs within the Mature category in order to achieve a stable foundation. However, it is important to note that 54 percent of all programs are currently within the Growth Stage and will be moving into the Mature Stage in the near future. For that reason, the Department should not be overly concerned with the current distribution percentage.

An estimated 6 percent of programs are Saturated or Declining, and this is a great testament to how well the Department does at repositioning existing program offerings. This is a natural progression for programs to eventually evolve into saturation and decline. However, if programs reach these stages rapidly it could be an indication that the quality of the programs does not meet expectations, or there is not as much of a demand for the programs. As programs enter into the Decline stage, they must be closely reviewed and evaluated for repositioning or elimination. When this occurs, the Department should modify these programs to begin a new lifecycle within the Introductory stage or replace the existing programs with new programs based upon community needs and trends.

Staff should complete a Program Lifecycle Analysis on an annual basis and ensure that the percentage distribution closely aligns with desired performance. The Department could include annual performance measures for each Core Program Area to track participation growth, customer retention and percentage of new programs as an incentive for innovation and alignment with community trends.

Program Classification

Conducting a classification of services analysis informs how each program serves the overall organization mission, the goals and objectives of each Core Program Area and how the program should be funded regarding tax dollars and/or user fees and charges. Program Classification can help to determine the most appropriate management, funding and marketing strategies.

Program classifications are based on the degree to which the program provides a public benefit versus a private benefit. Public benefit can be described as everyone receiving the same level of benefit with equal access, whereas private benefit can be described as the user receiving exclusive benefit above what a general taxpayer receives for their personal benefit.

For this exercise, the Department used a classification method based on three categories: Essential Services, Important Services and Value-Added Services. Where a program or service is classified depends upon alignment with the organizational mission, how the public perceives a program, legal mandates, financial sustainability, personal benefit, competition in the marketplace, and access by participants. The following bullets and graphic describe each of the three program classifications.

› Essential Programs category are critical to achieving the organizational mission and providing community-wide benefits and therefore, generally receive priority for tax-dollar subsidization.

› Important or Value-Added program classifications generally represent programs that receive lower priority for subsidization.

 – *Important programs contribute to the organizational mission but are not essential to it and cost recovery for these programs should be high (at least 80 percent overall).*

 – *Value-Added programs are not critical to the mission and should be prevented from drawing upon limited public funding, so overall cost recovery for these programs should be near or in excess of 100 percent.*

Figure 4.9 - *Fishing Camp*

^ Figure 4.10 - *Program Classification*

With assistance from staff, a classification of programs and services was conducted for all of the recreation programs offered by the Department. The results presented in the following table represent the current classification distribution of recreation program services. Programs should be assigned cost recovery goal ranges within those overall categories. A full program list organized by Core Program Areas can be found in the appendices.

APEX PROGRAM CLASSIFICATION DISTRIBUTION		
Essential	Important	Value-Added
37%	41%	22%

^ Figure 4.11 - *Apex Program Classification Distribution*

As the Department continues to evolve to better meet the community's needs, there could be an added benefit to managing the services if they all were classified according to the Cost Recovery Model for Sustainable Services depicted below in Figure 4.12.
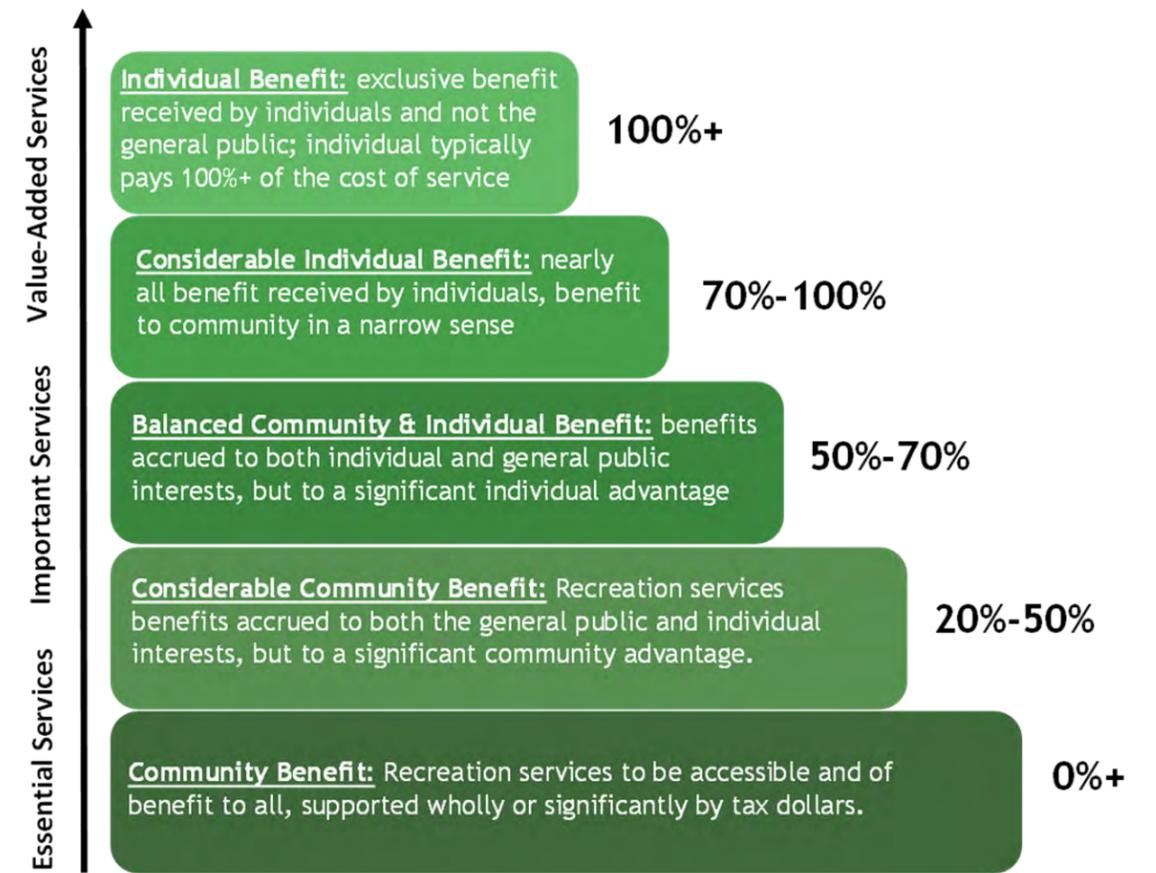
^ Figure 4.12 - *Cost Recovery Model*

Given the broad range of cost recovery goals (from 0 to 40 percent for Essential Services or 40 percent to 80 percent for Important Services), it would be helpful to further distribute programs internally within sub-ranges of cost recovery as depicted in the previous Figure. This will allow for programs to fall within an overall service classification tier while still demonstrating a difference in expected / desired cost recovery goals based on a greater understanding of the program's goals (Pure Community services versus Mostly Community Services or Community and Individual Mix versus Mostly Individual Mix).

Cost of Service & Cost Recovery

Cost recovery targets should at least be identified for each Core Program Area and for specific programs or events when realistic. The previously identified Core Program Areas would serve as an effective breakdown for tracking cost recovery metrics including administrative costs. Theoretically, the staff should review how programs are grouped for similar cost recovery and subsidy goals to determine if current practices still meet management expected outcomes.

Determining cost recovery performance and using it to make informed pricing decisions involves a three-step process:

› Classify all programs and services based on the public or private benefit they provide (as completed in the previous section).
› Conduct a Cost-of-Service Analysis to calculate the full cost of each program.
› Establish a cost recovery percentage through Department policy for each program or program type based on the outcomes of the previous two steps and adjust program prices accordingly.

Understanding the Full Cost-of-Service

To develop specific cost recovery targets, full cost of accounting needs to be created for each class or program that accurately calculates direct and indirect costs. Cost recovery goals are established once these numbers are in place and the Department's program staff should be trained on this process. A Cost-of-Service Analysis should be conducted on each program, or program type, that accurately calculates direct (program-specific) and indirect (comprehensive, including administrative overhead) costs. Completing a Cost-of-Service Analysis not only helps determine the true and full cost of offering a program, but it also provides information that can be used to price programs based upon accurate delivery costs. Figure 8 illustrates the common types of costs that must be accounted for in a Cost-of-Service Analysis.

Figure 4.13 - Cost -of-Service Analysis

The methodology for determining the total Cost-of-Service involves calculating the total cost for the activity, program or service, then calculating the total revenue earned for that activity. Costs (and revenue) can also be derived on a per unit basis. Program or activity units may include:

› Number of participants
› Number of tasks performed
› Number of consumable units
› Number of service calls
› Number of events
› Required time for offering programs service

Agencies use Cost-of-Service Analysis to determine what financial resources are required to provide specific programs at specific levels of service. Results are used to determine and track cost recovery as well as to benchmark different programs provided by the Department between one another. Cost recovery goals are established once Cost-of-Service totals have been calculated. Program staff should be trained in the process of conducting a Cost-of-Service Analysis and the process should be undertaken at least every 2-years.

COST RECOVERY GOAL BY CORE PROGRAM AREA		
Core Program Area	Cost Recovery Goal	Actual Cost Recovery
Arts & Culture	60%-100%	60%-100%
Athletics	50%-100%	50%-100%%
Festivals/Special Events/Special Interests	0%	0%
Non-Athletic Classes	50-100%	50-100%
Seniors	35%	35%
Specialized Recreation	35%	35%

Figure 4.14 - Cost Recovery by Core Program Area

Current Cost Recovery

With regard to cost recovery, the Department currently establishes goals and tracks actual cost recovery on a Core Program Area level. This is deemed a best practice and should be continued on an annual basis. Additionally, some individual programs also track cost recovery (E.g., Athletic Programs). Over time the Department should evolve into implementing cost recovery goals at the individual program level for all programs. The table to the right shows current cost recovery goals and actual cost recovery for each Core Program Area.

The Department's current Core Program Area with the greatest actual cost recovery is Arts & Culture with 60 percent-100 percent cost recovery. Followed by Athletics and Non-Athletic Classes, each with 50 percent-100 percent cost recovery.

As shown in the table above, cost recovery targets can vary based on the Core Program Area and even at the program level within a Core Program Area. Several variables can influence the cost recovery target, including lifecycle stage, demographic served and perhaps most important, program classification. These are best practices for Core Program Areas. Programs within each Core Program Area will vary in price and subsidy level. The program mix within each Core Program Area will determine the cost recovery capabilities.

With approved cost recovery goals, annual tracking, and quality assurance, overall cost recovery will improve. Use the key performance indicators and update annually to include cost recovery goals and actual cost recovery achieved. Each Core Program Area can and should be benchmarked against itself on an annual basis.

Cost Recovery Best Practices

Cost recovery targets should reflect the degree to which a program provides a public versus individual good. Programs providing public benefits (Essential programs) should be subsidized more by the Department. Programs providing individual benefits (Value-Added programs) should seek to recover costs and generate revenue for other services.

Pricing

Pricing strategies are one mechanism agencies can use to influence cost recovery. Overall, the degree to which the Department uses various pricing strategies is rather consistent. Pricing tactics are concentrated in four main pricing strategies including family/household status, residency rates, cost recovery goals and customer's ability to pay.

Considering weekday/weekend rates, prime/non-prime time rates, group discounts, by-location pricing and market rates are also valuable strategies when setting prices. These untapped pricing strategies are useful to help stabilize usage patterns and help with cost recovery for higher quality amenities and services. The consulting team recommends that all Core Program Areas continue utilizing cost recovery as a major factor in determining pricing and look at underutilized pricing strategies to bolster participation and revenue.

Staff should continue to monitor the effectiveness of the various pricing strategies they employ and adjust as necessary. It is also important to continue monitoring for yearly competitor and other service providers (similar providers) as found in appendices The table below details pricing methods currently in place by each Core Program Area and additional areas for strategies to implement over time.

PRICING STRATEGIES										
Core Program Areas	Age Segment	Family/ Household Status	Residency	Weekday/ Weekend	Prime/Non Prime Time	Group Discounts	By Location	By Competition (Market Ratge)	By Cost Recover Goals	By Customer's Ability to Pay
Arts & Culture		X	X						X	X
Athletics		X	X						X	X
Festivals/Special Events/ Special Interests	X								X	X
Non-Athletic Classes		X	X						X	X
Seniors			X					X	X	X
Specialized Recreations		X	X					X	X	X

Figure 4.15 - Pricing Strategies

Program Strategy Recommendations

In general, the Department program staff should continue the cycle of evaluating programs on both individual merit as well as the program mix as a whole. This can be completed at one time, on an annual basis, or in batches at key seasonal points of the year, as long as each program is checked once per year.

The following tools and strategies can help facilitate this evaluation process:

Mini Business Plans

The consulting team recommends that Mini Business Plans (2-3 pages) for each Core Program Area be updated on a yearly basis. These plans should evaluate the Core Program Area based on meeting the outcomes desired for participants, cost recovery, percentage of the market and business controls, Cost-of-Service, pricing strategy for the next year and marketing strategies that are to be implemented. If developed regularly and consistently, they can be effective tools for budget construction and justification processes in addition to marketing and communication tools.

Program Development & Decision-Making Matrix

When developing program plans and strategies, it is useful to consider all of the Core Program Areas and individual program analysis discussed in this Program Assessment. Lifecycle, Age Segment, Classification, and Cost Recovery Goals should all be tracked. This information, along with the latest demographic trends and community input should be factors that lead to program decision-making. Community input can help staff focus in on specific program areas to develop new opportunities in what group of citizens to target including the best marketing methods to use.

A simple and easy-to-use tool similar to Figure 4.16 below will help compare programs and prioritize resources using multiple data points, rather than relying solely on cost recovery. This analysis will help the staff make an informed, objective case to the public when a program is in decline and retired, yet it was enjoyed by a few users. If the program/service is determined to have strong priority, appropriate cost recovery, good age segment appeal, good partnership potential and strong market conditions the next step is to determine the marketing methods by completing a similar exercise as the one seen below.

Figure 4.16 - Mini Business Plan Examples

Program Evaluation Cycle (with Lifecycle Stages)

Using the Age Segment, Lifecycle Analysis, and other established criteria, the program staff should evaluate programs on an annual basis to determine program mix. This can be incorporated into the Program Operating/Business Plan process. A diagram of the program evaluation cycle and program lifecycle is found in Figure 12. During the Introductory Stages the program staff should establish program goals, design program scenarios and components and develop the program operating/business plan. Regular program evaluations will help determine the future of a program.

If participation levels are still growing, continue to provide the program. When participation growth is slowing (or non-existent) or competition increases, the staff should look at modifying the program to re-energize the customers to participate. When program participation is consistently declining, the staff should terminate the program and replace it with a new program based on the public's priority ranking and/or in activity areas that are trending nationally/regionally/locally, while taking into consideration the anticipated local participation percentage.
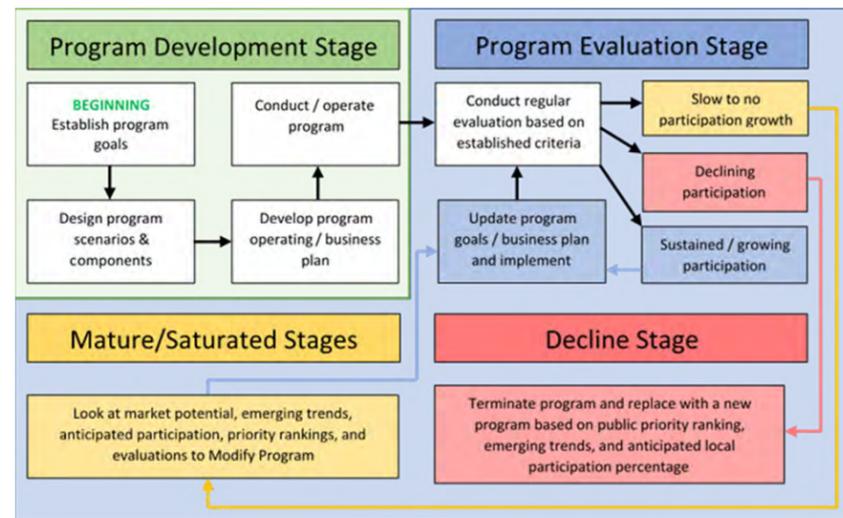
Figure 4.17 - Evaluating Cycle with Program Lifecycle Logic Matrix

Market, Volunteers and Partnerships

Current Recreation Marketing and Communications

The Department's current marketing plan utilizes several communication methods to connect with residents including:

- Printed program guides
- Online program guides
- The Town's website
- Smartphone apps
- Flyers/brochures
- Direct mail
- Email blasts
- Marquee signs
- In-facility signage
- Print newsletters
- QR codes
- CAC radio and printed advertising
- Various social media channels

Effective communication strategies require striking an appropriate balance between the content with the volume of messaging while utilizing the "right" methods of delivery. The Department has a broad distribution of delivery methods for promoting programs. It is imperative to continue updating the marketing plan on an annual basis, at minimum, in order to provide information for community needs, demographics, and recreation trends.

An effective marketing plan must build upon and integrate with supporting plans and directly coordinate with organization priorities. The plan should also provide specific guidance as to how the Department's identity and brand is to be consistently portrayed across the multiple methods and deliverables used for communication.

Figure 4.18 - Program Guide

Figure 4.19 - Town of Apex Website

Website

The Department's website (https://www.apexnc.org/223/Parks-Recreation-Cultural-Resources) has several features that make it easy to navigate and user friendly. There are sixteen icons located in the middle of the homepage which allow users to quickly access frequently sought-after information (Online Registration, Program Guides, Maps & Plans, Parks, Facilities and Rentals) Similarly, just below those icons is a "Helpful Documents and Links" section which directs residents to all rental forms, registration forms, and permits/licenses they may be seeking. At the bottom of the Parks, Recreation, and Cultural Resources homepage, users will find a "Connect with Us" section which has links to all of the Town's social media pages including; Facebook, Twitter, YouTube, Instagram and NextDoor. This makes it easy for residents to follow/subscribe to the Town's various platforms in order to better stay connected on what is happening in the community.

Additionally, it should be noted that the Department's Cultural Arts Center (the Halle) also has its own website where users can find all necessary information on upcoming events and festivals. (http://www.thehalle.org/)

Marketing and Communication Findings

› Ensure the marketing plan includes the components and strategies identified in this section. A Marketing Department should be involved in the administration of the system to monitor activities and events that should be presented to the community. Marketing will ultimately answer to the director for approval of information / methods used to market the system to residents.
› Establish priority age segments to target in terms of new program or service development and communication tactics.
› Establish and review performance measures for marketing on a regular basis; performance measures can be tracked through customer surveys as well as some web-based metrics.
› Leverage relationships with partners to enhance marketing efforts through cross-promotion that include defined measurable outcomes.

Volunteer and Partnership Management

Today's realities require most public recreation and parks departments to seek productive and meaningful partnerships with both community organizations and individuals to deliver quality and seamless services to their residents. These relationships should be mutually beneficial to each party to better meet overall community needs and expand the positive impact of the agency's mission. Effective partnerships and meaningful volunteerism are key strategy areas for the Town to meet the needs of the community in the years to come.

Current Volunteer Management

When managed with respect and used strategically, volunteers can serve as the primary advocates for the Town and its offerings. Currently, Apex uses a town-wide approach to volunteerism. All of the Town's volunteer opportunities are posted under the "Our Community" tab on the Town's website homepage. Additionally, some volunteer opportunities are also marketed on the Town's social media pages.

Management of volunteers is currently tracked on a limited basis. Moving forward, it is recommended that the Department begin tracking additional key performance indicators such as volunteer hours and type of volunteers (community service, special event, intern and other volunteer opportunities). Tracking volunteer hours can be used in budget discussions showing how well the Department is able to leverage limited resources. A complete list of volunteer recommendations and best practices can be found in the appendices.

Figure 4.20 - Example of Special Event Marketing

Volunteering

Adopt-a-Park / Trail
Adopting a section of a Town trail or park, and improve it through litter pick-up, maintaining flower beds, painting, spreading playground mulch and other safety surfacing and other manual labor. Learn more...

Apex Farmers Market
The weekly market provides opportunities to volunteer on-site and from home. Learn more...

Citizen Advisory Boards
Advisory boards offer Apex citizens the opportunity to provide input to Council on important topics including land use planning, zoning, and parks & recreation. Members are Council-appointed, with terms lasting from 1 to 3 years. Most boards meet monthly. If you'd like to serve, submit an interest form.

Citizens Assisting Police in Apex (CAPA)
CAPA members help provide assistance at public events and assist the Police Department in support roles at events such as Child/Medical ID Program, Peakfest, Apex Night Out, Christmas with a Cop, Town Parades, Traffic Control and more. Before becoming CAPA member, a volunteer must successfully complete Apex's Citizens Police Academy. Email for more info.

Community Emergency Response Team (CERT)
Participants are educated about disaster preparedness and trained in basic disaster response skills to enable them to assist others in their neighborhood or workplace following an event. To volunteer, please fill out the online form.

Landscaping / Outdoor
Assist with outdoor projects like mulching at the town's parks and trails. To volunteer, please fill out the online form.

Meals on Wheels
Meals on Wheels of Wake County serves noon time meals every weekday to the elderly, homebound and persons with disabilities of Wake County. To volunteer, or for more information, please visit the Meals on Wheels website.

Special Events
Volunteers needed for events like: Olde Fashioned 4th of July, events at the Halle Cultural Arts Center, Peak Fest (1st Saturday in May), Turkey Trot 5K (Saturday prior to Thanksgiving), and other events! To volunteer, please fill out the online form.

Figure 4.21 - Current Volunteering Opportunities on Town's Website

IN THIS CHAPTER

Methodology

Budget

Programs

Key Findings

The project team conducted the financial operations assessment to better understand the state of operations and resulting financial implications. This section includes the analysis of the financial positioning of the overall PRCR Department budget based on the past budget activity records available from the Department.

METHODOLOGY

The assessment considered a four-year window of budget activity from 2018 through 2021. First, the overall budget was reviewed to understand the economic health of the system. Next, a review of the various lines of revenues and expenses was examined to determine any dramatic changes with increases and decreases that took place with any line item. Once those line items were identified, they were highlighted to illustrate the occurrence and provide an understanding of the rationale for the significant change. They were also compared to historical experience with other park systems and their budget processes.

BUDGET

The 2022 budget is reflected in Figure 5.2 to illustrate the projected post-COVID-19 changes to operations from the preceding year. As with all public park and recreation systems across the country, Apex Parks, Recreation & Cultural Resources Department experienced a significant change in operations in 2020 due to the influences of the pandemic. In Figure 1, revenues in 2020 generated from programs dipped significantly from $1,089,328 to $573,371, a reduction of $515,957. Several programs experienced significant reductions in their revenues during 2020. Those programs experiencing the greatest reduction in revenues included senior programs and trips (by 33%), youth leagues (by 72%), adult leagues (by 42%), community center (by 77%), and Cultural Arts Center rentals (by 25%) and programs (by 56%), and dog park passes (by 32%).
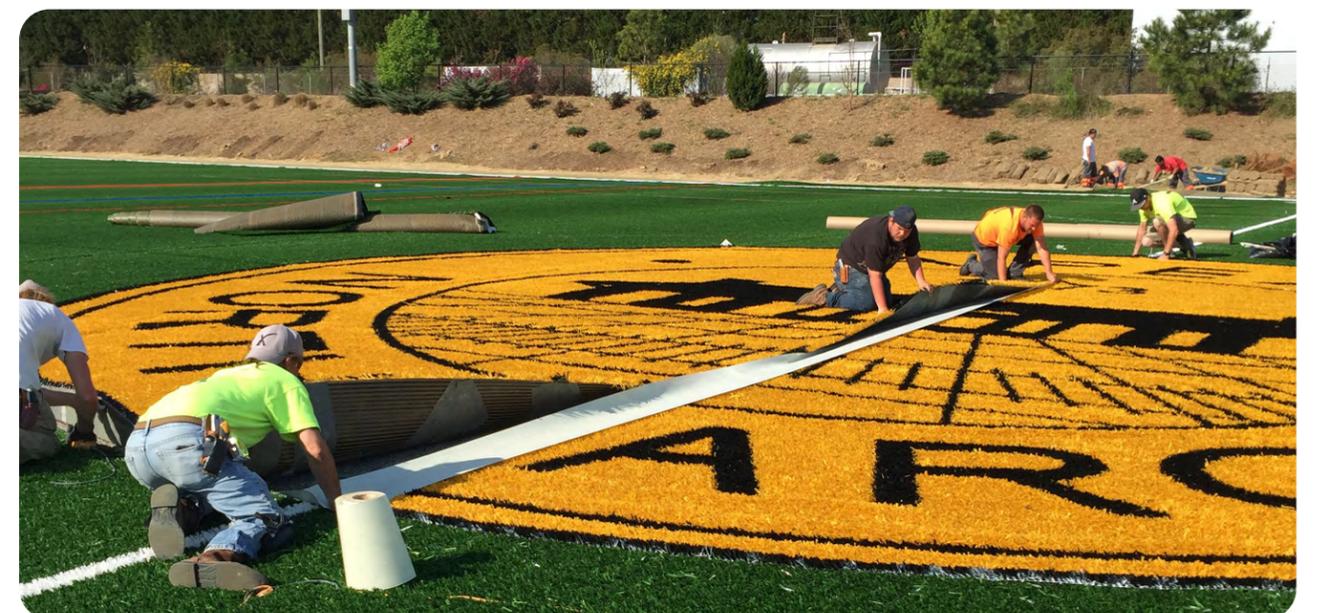

Figure 5.1 - *Hunter Street Park Field*

TOWN OF APEX	REVENUE							
Account Description	2018 Actual Account	2019 Actual Account	2020 Actual Account	2021 Actual Account	2022 Approved	Comparing 2020 to 2019	Comparing 2021 to 2019	Comparing 2021 to 2022
Revenue Source						Covid year	Pre covid	Post Covid
Non-Athletic Programs	236,150.18	217,275.15	35,960.79	101,468.61	150,000.00	17%	47%	67%
Fishing and Boating License	1,805.97	1,132.20	849.62	1,776.42	1,200.00	75%	157%	30%
Senior Programs	45,244.07	50,472.35	33,905.54	24,905.95	25,000.00	67%	49%	
Senior Trips	23,704.14	22,045.68	15,068.02	3,969.46	10,000.00	68%	18%	61%
Instructional Athletics	22,709.36	21,973.26	16,218.68	23,973.05	15,000.00	74%	109%	
Youth Leagues	176,480.26	97,637.65	54,279.29	134,799.98	100,000.00	28%	70%	
Adult Leagues	104,580.85	97,637.65	56,566.22	63,403.01	75,000.00	58%	65%	15%
Active Net Turkey Trot	13,086.44	10,529.82	12,087.01	1,605.08	8,000.00	115%	15%	
Community Center Rentals	115,905.43	216,131.77	49,056.26	106,853.25	65,000.00	23%	49%	
Miscellaneous POS	3,588.35	4,356.20	1,677.79	8,034.41	2,500.00	39%	184%	15%
Planning Documents	200.00	160.00	60.00	20.00	-	38%	13%	
Field Rentals	-	-	115,609.21	143,996.03	100,000.00			
CAC Rentals	98,397.57	92,024.54	69,121.98	9,767.04	50,000.00	75%	11%	
E-Tickets	29,666.36	35,727.07	27,448.12	3,555.36	20,000.00	77%	10%	
Grants	-	-	-	2,350.00	-			
Art/Sales Commissions	113.83	394.49	78.00	562.23	-	20%	143%	
CAC Programs	70,616.28	81,895.41	35,796.35	51,729.70	65,000.00	44%	63%	2%
Sponsorships	9,835.00	8,900.00	13,150.06	1,600.00	6,000.00	148%	18%	
Concessions	6,986.06	2,546.40	586.15	40.30	3,000.00	23%	2%	99%
Arts Center Miscellaneous	998.39	2,970.98	3,271.92	23.56	2,000.00	110%	1%	99%
Dog Park Passes	31,045.94	30,366.98	20,580.02	34,462.20	30,000.00	68%	113%	
Duke-Harris Plant	12,000.00	-	12,000.00	-	12,000.00			
Special Events	-	-	-	50.00	-			
CASE Fees	100.00	-	-	-	-			
Total Revenue Program Revenue	1,003,304.47	1,089,328.43	573,371.03	718,945.64	739,700.00	53%	66%	3%

Figure 5.2 - Revenue Data

The 2021 budget can be considered as a transition year from the influences of the pandemic into near 2019 normalcy. In 2022, it appears Apex Parks, Recreation & Cultural Resources anticipates a conservative recovery from the preceding two years of operations. Moderate change is reflected in most lines of business when comparing them with the 2021 actual results.

While revenues decreased 47 percent when comparing the COVID-19 (2020) year with the previous year (2019), operating expenses during that same timeframe did not decrease to parallel the reductions in revenue. When comparing the payroll in the COVID-19 year (2020) with the year prior, the personnel services costs increased 13 percent. This expense is understandable since the system continues to require maintenance personnel for the upkeep of parks and facilities as COVID brought more people outside trying to find safe activities to engage. Operations costs to maintain the system, however, have reduced 22 percent from $1,704,856 to $1,329,133.

Salaries

The standard for personnel services in parks and recreation systems is 54 percent of the overall operating budget. Those costs include all salaries, wages, and benefits for both full-time and non-full-time personnel. In 2022, Apex Parks, Recreation & Cultural Resources is projecting full-time personnel costs at 58 percent, not including contracted individuals.

Part-time salaries and personnel service expenses decreased by 7 percent during the COVID-19 (2020) year. Part-time salaries decreased in the year following the COVID-19 (2020) year by 31 percent. This is understandable as many program and park operations depend on part-time employees to sustain operations. However, the post-COVID-19-year (2021) personnel expenses increased overall by 20 percent when compared with the period before COVID-19 (2019). Proposed payroll costs are projected to be 27 percent higher in 2022 over the post-COVID-19-year 2021. Figure 5.3 illustrates that this percentage is influenced significantly in the part-time payroll which is projected to increase from $202,582 to $400,000.

TOWN OF APEX						
Account Description	2019 Actual Account	2020 Actual Account	2021 Actual Account	2022 Approved	Comparing 2020 to 2019	Comparing 2021 to 2019
EXPENSES						
Department: 6200 - Recreation						
PS - Personal Services					COVID YEAR	PRE COVID
Salaries	1,437,838	1,639,513	1,835,641	2,135,000	114%	128%
Part-Time Salaries	291,712	270,560	202,587	400,00	93%	69%
FICA	128,101	141,256	149,728	194,000	110%	117%
Group Insurance	265,016	327,057	313,760	418,900	123%	118%
General Retirement	112,586	148,065	185,638	243,200	132%	165%
401K General	71,736	81,870	90,827	106,800	114%	127%
Workers Comp	25,758	29,664	26,867	55,000	115%	104%
Account Classification Total: PS - Personal Services	2,332,747	2,637,984	2,805,048	3,552,900	113%	120%

Figure 5.3 - Expenses Data

Expenses

According to the National Recreation and Park Association, (NRPA) normalizing operating expenditure data by population served in the agency is a meaningful way of articulating and comparing spending. In Figure 5.5 it is noted that Operations Expenses increased in the COVID-19 year (2020) over the previous year 2019 by 111 percent. It is also important to note that Operational Expenses in 2021 decreased after the COVID-19 year (2020) by $375,723. The budget nearly doubled in the proposed 2022 budget year when compared with the 2021 actual expenses. The fiscal year 2022 proposed operating budget is $2,487,000 and the year-end budget in 2021 was $1,329,133 which is an increase of $1,157,867. The total operational expenditures for Apex PRCR Department have been budgeted to increase by nearly $2 million ($1,905,719) from 2021 to 2022. When personnel expenses are added to the 2022 Operating Budget the total budget allocation for the 2022 fiscal year is $6,039,000. When measured against the population of Apex, 62,689, the per capita spending is projected to be $96.33 which is higher than the average rate of other agencies in the Lower Quartile but lower than the Median Quartile at $104 and the High Quartile number of $180 (Per 2022 NRPA Parks Metrics Report).

The expense areas that may have contributed to lower operational costs included less travel and training, advertising, trip programs, provisions for meetings and events, contracted services, instruction programs, and professional services because of the COVID-19 impact. Programs and services associated with these accounts did not take place due to travel restrictions and reductions in training opportunities due to the pandemic. Most programs depend on part-time personnel and contract instructors. Apex Parks, Recreation & Cultural Resources experienced a reduction in revenues equal to $515,957. The activities that were affected by this reduction included non-athletic programs, adult and youth sports, and the Cultural Arts Center programs, each of which depends significantly on part-time wages for instructors.

Some accounts experienced increased costs, including building maintenance and repairs, janitorial and departmental supplies, and software. Hardware improvements and software upgrades to computer systems can be completed during the times of low volume activity to improve program registrations and rental programs.

Another common expense in park and recreation systems during the pandemic year is maintenance and repair initiatives while facilities experienced reduced use and attendance. Budget increases were implemented to cover the costs of building maintenance and repair, custodial supplies, professional services, engineering, and surveying as illustrated in Figure 5.5.

▲ Figure 5.4 - *Town Staff and Equipment*

Figure 5.5- *Operating Budget* ❯

TOWN OF APEX	OPERATING BUDGET						
Account Description	2019 Actual Account	2020 Actual Account	2021 Actual Account	2022 Approved	Comparing 2020 to 2019	Comparing 2021 to 2019	Comparing 2021 to 2022
OP - Operations					Covid year	Pre-Covid	Post-Covid
Postage	1,108	548	1,245	5,000	49%	112%	75%
Telephone and Communications	20,932	24,582	21,136	30,100	117%	101%	30%
Printing	20,368	20,258	19,141	44,200	99%	94%	57%
Utilities	151,790	139,204	149,248	244,000	92%	98%	39%
Travel and Training	17,471	13,283	7,638	31,300	76%	44%	76%
Building Maintenance and Repair	78,074	285,368	88,619	186,500	366%	114%	53%
Equipment Maintenance and Repair	22,419	18,461	34,951	26,500	82%	156%	
Vehicle Maintenance and Repair	7,896	7,997	7,844	10,000	102%	100%	22%
Equipment Rental	14,143	14,591	11,562	19,500	103%	82%	41%
Vehicle Rental	-	389	-	1,500			
Facilities Rental	35,187	35,914	105	38,000	102%	0%	
Advertising	10,030	5,315	-	28,100	53%	0%	100%
Automotive Supplies	8,107	7,451	6,980	14,300	94%	87%	52%
Motor Fuel	28,520	26,255	35,789	40,000	92%	126%	11%
Office Supplies	2,794	3,609	6,721	27,500	129%	241%	75%
Janitorial Supplies	31,859	40,426	47,558	47,300	127%	149%	18%
Departmental Supplies	260,635	280,511	315,124	391,400	108%	121%	20%
Technology Hardware & Accessories	21,529	32,281	14,288	33,100	150%	66%	57%
Medical Supplies	1,059	–	–	–	0%	0%	
Athletic Supplies	75,553	80,602	51,486	122,000	107%	68%	58%
Senior Trips/Programs	77,432	65,029	39,421	154,300	84%	51%	74%
Meetings & Event Provisions	5,413	4,120	2,740	21,800	76%	51%	88%
Community Outreach Materials	-	1,415	-	2,500			
Uniforms	7,077	3.871	18,235	15,300	55%	258%	
Contracted Services	205,183	224,249	279,239	211,600	109%	136%	
Personal Protective Equipment	12,646	9,835	13,888	15,000	78%	110%	7%
Software License & Maintenance	14,037	16,447	25,475	46,100	117%	181%	45%
Contracted Services - Instructor Programs	332,816	190,271	71,963	486,600	57%	22%	85%
Professional Services	26,933	20,148	8,553	121,900	75%	32%	99%
Prof Svc- Engineering/Surveying	8,660	99,927	14,704	50,000	1154%	171%	70%
Landfill Tipping Fees	-	-	-	3,000			
Dues and Subscriptions	1,090	1,813	3,390	2,300	166%	311%	
Operating License & Permits	382	-	-	-	0%	0%	
Insurance	30,200	30,631	32,000	34,300	101%	106%	6%
Total: OP - Operations	1,532,227	1,704,856	1,329,133	2,487,000	111%	87%	47%

PROGRAMS

Apex Parks, Recreation & Cultural Resources offers a significant array of programs to users of the system. Programs have been assessed to determine the degree of success that occurs when offering activities to the community residents and non-residents. The process used when conducting this segment of the study was initiated from the program lists provided to the project team by Apex Parks, Recreation & Cultural Resources' Activite.net software.

Four years of program registrations from 2018, 2019, 2020, and 2021 were provided. Each year included a compilation of three program seasons: spring, summer, and fall.
Captured data included:

› Year and season of the programs
› Number of registrations (resident and non-resident) that took place
› Total number of registrations for each season in a given year
› Percentage of residents that participated in programs

Registration patterns were analyzed for each season and the years of operations. All programs were reviewed and any program that reflected three or fewer participants was highlighted. Typically, park systems focus on conducting programs that generate enough revenue to offset the cost of presenting the program or activity. Costs will include direct expenses such as the instructor or leadership staff and supplies. It is important to recover indirect costs such as marketing and administrative expenses and also take into consideration the use of the space intended for the program. It is not practical to occupy a space with a program that has low enrollment. When a program shows enrollment of three or fewer participants the potential for satisfying the criteria is limited and impractical to host the program. The presumption from the perspective of the assessment is that those programs were identified as not held.

Calculations were completed to determine the percentage of programs that were held against the number of programs that were attempted or offered. This calculation will provide insight into the level of registration success a program achieved when it was offered. Success in this case relates to the number of registrations for the class against the desired level of participation. For example, if the desired level of registration is ten participants and the registration for the program is three or fewer, it can be determined that the class would not be held. When reviewing the sequence of programs that illustrated low enrollment over several seasons, the project team's perception coming from the analysis is that the programs may need to be reinvented or updated to increase the likelihood of the program generating more than three participants.

Following (Figure 5.6, Figure 5.7, Figure 5.8, Figure 5.9,) are the results of this analysis for each of the remaining three years of programming in the department.

2018 CLASS OFFERINGS AND RESULTS								
Enrollment	Res	Non Res	Total	% of Residents	Classes Offered	Classes Held	% of Success	Classes Canceled
Spring 2018	4285	1088	5373	0.80	279	237	0.85	41
Summer 2018	2972	573	3545	0.84	249	209	0.84	40
Fall 2018	5511	1707	7218	0.76	286	233	0.81	53

Figure 5.6 - *2018 Class offerings and Results*

2019 CLASS OFFERINGS AND RESULTS								
Enrollment	Res	Non Res	Total	% of Residents	Classes Offered	Classes Held	% of Success	Classes Canceled
Spring 2019	4943	1320	6263	0.79	296	255	0.86	41
Summer 2019	3214	584	3789	0.85	257	230	0.89	27
Fall 2019	5863	1640	7503	0.78	292	239	0.82	53

Figure 5.7 - *2019 Class offerings and Results*

2020 CLASS OFFERINGS AND RESULTS								
Enrollment	Res	Non Res	Total	% of Residents	Classes Offered	Classes Held	% of Success	Classes Canceled
Spring 2020	4400	1143	5543	0.76	300	213	0.71	91
Summer 2020	431	131	562	0.77	324	61	0.19	256
Fall 2020	1527	650	2177	0.70	311	99	0.32	212

Figure 5.8- *2020 Class offerings and Results*

2021 CLASS OFFERINGS AND RESULTS								
Enrollment	Res	Non Res	Total	% of Residents	Classes Offered	Classes Held	% of Success	Classes Canceled
Spring 2021	1807	595	2402	0.75	287	109	0.38	180
Summer 2021	2177	517	2694	0.81	260	203	0.78	57
Fall 2021	5328	1385	6714	0.79	301	238	0.79	63

Figure 5.9 - *2021 Class offerings and Results*

The analysis indicates that during (non-COVID-19) years the system reflects significant success when calculating the number of programs that are offered and the degree of success of those programs. For example, in 2018 all three seasons show a success rate of between 81 and 85 percent. The benchmark standard the project team uses to demonstrate high levels of success is 70 percent. At the same level of success, 2019 reflects registrations between a robust 82 to 89 percent level of success. What makes these levels of success impressive is the total number of programs that are offered in any given season. The number of programs offered during those two years ranges from 249 in the summer of 2018 and 296 programs in the spring of 2019. Those levels are remarkable when comparing user volume with the number of programs that are conducted in a given season.

The levels of success in 2020 and 2021 reflect the influences of COVID-19. Spring 2020 started fairly well at an acceptable standard of 71 percent, followed by a year of COVID-19-influenced performance from the summer of 2020 through the spring of 2021. The level of program success dipped to 19 percent in the summer of 2020 to a high of 38 percent success rate in the summer of 2021. It is important to note that staff continued their efforts to offer programs during the three seasons of COVID-19 with as many as 324 classes offered to potential users.

When reviewing the revenue budgets for the four years studied, it can be determined that the programs most negatively influenced by the pandemic during the 2020 and 2021 years include:

Reduction in Revenues

› Non-Athletic Programs
› Senior Programs and Trips
› Youth Leagues
› Adult Leagues
› Cultural Arts Center Programs

Reductions in Expenses

› Salaries and Personnel Costs
› Printing
› Utilities
› Travel and Training
› Maintenance and Upkeep
› Supplies for Office and Programs
› Trip Programs
› Contract Programs and Services
› Special Programs

Figure 5.10 - *Camping Program*

SUMMARY OF FINDINGS

› There is a need to develop refined costing models to ensure operational costs for delivering a program are recovered by the revenue generated through program registration.
› Assess the economic relationship between Apex Parks, Recreation & Cultural Resources, and contract instructors to strive to achieve a 60/40 relationship where the department retains 40 percent of the overall revenue generated in these program structures.
› Ratio of instructor to participant (1 to 10 or 1 to 15) by program is followed by the established standards.
› Programs offered versus programs held should meet the minimum number of participants to hold the class.
› PRCR's class, program or league capacity levels are considerably lower than those recommended the by the National Recreation and Parks Association (NRPA) and the project team. Their recommendations indicate that classes, programs, and leagues should be at 75 percent capacity to be held. This recommendation is not a goal, nor set for the parameters within their current or future program capabilities. It is however, recommended that PRCR Department evaluate KPI's as well as class, program, and league size to make appropriate decisions regarding whether a program, class or league is performing in comparison to an year of success pre-COVID.

06 | FUNDING + REVENUE
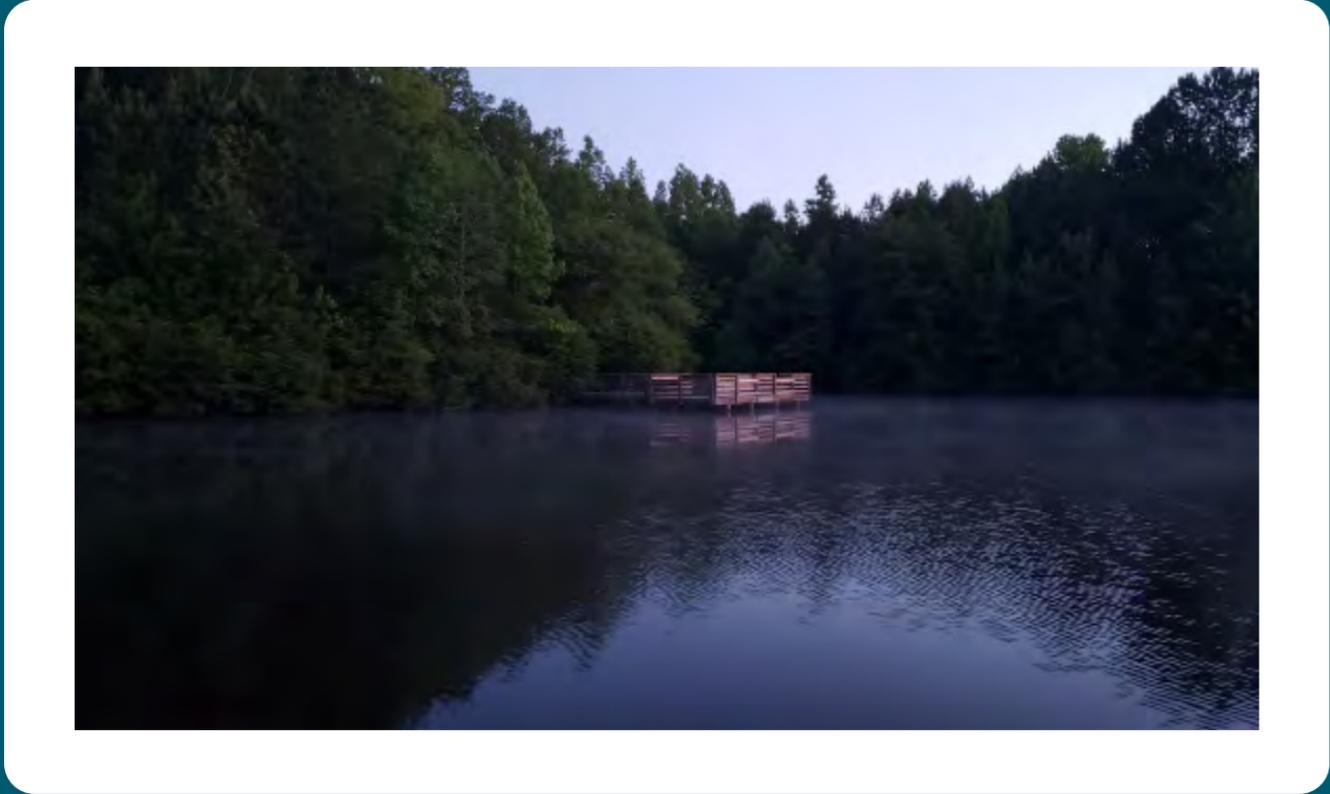
Parks and Recreation systems across the United States have learned to develop a clearer understanding of how to optimize revenue generation options to support the parks and recreation services with limited tax dollars available. They no longer rely on taxes as their sole revenue option but have developed new sources of revenue to help support capital and operational needs. This chapter outlines various funding and revenue generating opportunities for the Town of Apex.

EXISTING SOURCES

The following sources are financial models that the Town of Apex Parks, Recreation and Cultural Resources Department currently implements and alternative sources to consider in supporting the recommendations outlined in the Master Plan. This list is intended to serve as a resource to fit a variety of projects, operational needs, or partner-specific initiatives as well as provide other strategies beyond these suggestions.

The Parks, Recreation and Cultural Resources Department currently uses or previously used the following type of funding sources. These fees help offset operational costs, user fees for recreation programs, reservations for community rooms and picnic shelters, and permits for special use areas in the parks.

› Program fees for programs, classes, sport leagues, lessons, trips and events
› Permit fees for access to special facilities for special events, picnic shelters and rental of space in community facilities.
› Pass fees for dog park
› Fees for access of leagues and tournaments
› Concessions

Based on the review of the program assessment for the Department, they recover nearly 40% of the operational budget with earned income. The Department has a pricing policy that covers primarily direct costs associated with the programs they provide. Classifying programs by core essential, important and value added would provide clarity for when and how to price services in the future.

EXTERNAL FUNDING SOURCES

External funding sources are opportunities for the staff to increase cost recovery in existing facilities and future facilities they may develop. The following are funding options that could be developed over time. Usually, this requires a dedicated staff to focus on business development and pursue some of these sources of revenue.

Corporate Sponsorships

Corporate Sponsorships are currently in place and offset the costs of supplies and services in some recreation programming and special events. This revenue-funding source allows corporations to invest in the development or enhancement of new or existing programs and events put on by the Department.

Implication for Apex: While the Town already uses this funding source for special events, the opportunity to leverage this source of revenue usually requires a full-time position. Corporate sponsorships could be included in the new sports complex for field naming rights, tournaments, and the complex itself.

Crowdfunding

This is a web-based source which aggregates funds from a group of people who are willing to support a specific project, be it program or facility related. Some sites that successfully utilize this method are www.kickstarter. org, www.indiegogo.com and www.mightycause.com. This funding strategy is an opportunity for the Town to explore and is best used for individual projects that serve a special interest group. IOBY, which stands for In Our Backyard (www.ioby.org), is a regional Crowdfunding platform operating in New York, Detroit, Pittsburgh and other major cities that crowdfunds for community based programmatic or capital needs.

Implication for Apex: this funding source could be managed through a non-profit partner, either through the Town, or a newly created Parks Foundation that can support the Department's needs. The small scale of estimated revenue, typically less than $100,000, could encourage matching donations from corporate partners.

Partnerships

The Town currently implements this funding strategy in nominal amounts with various partnerships that are joint development funding sources or operational funding sources between two separate agencies, such as two government entities, a non-profit and a governmental entity, or a non-governmental business. Two partners jointly develop revenue producing park and recreation facilities and share risk, operational costs, responsibilities and asset management, based on the strengths and weaknesses of each partner. This could include the school district or the local hospital in development of community recreation spaces such as a pool that benefit school kids and also a therapy use for residents with health and wellness facilities.

Implication for Apex: Continue to build upon partnerships and develop specific policies to manage public, private, and non-profit partnerships differently. This could be in the form of partnerships for sports fields, a community center, nature centers and special use programs and events the Town provides now.

Foundations

The Town has not implemented this funding option, but should consider it as the Town grows, and as opportunities become available, but it is not a consistent or reliable source of funding. These dollars are raised from tax-exempt, non-profit organizations established with private donations in promotion of specific causes, activities or issues. They offer a variety of means to fund capital projects, including capital campaigns, fundraisers, endowments, sales of items and other types of events.

Implication for Apex: The Town should establish a standalone Parks Foundation dedicated to helping the Department accomplish its mission through fundraising and financing capital projects and services. The Department should also become a member of the National Association of Park Foundations (https://www.the-napf.org/) to identify best practices of other foundations nationwide and in North Carolina.
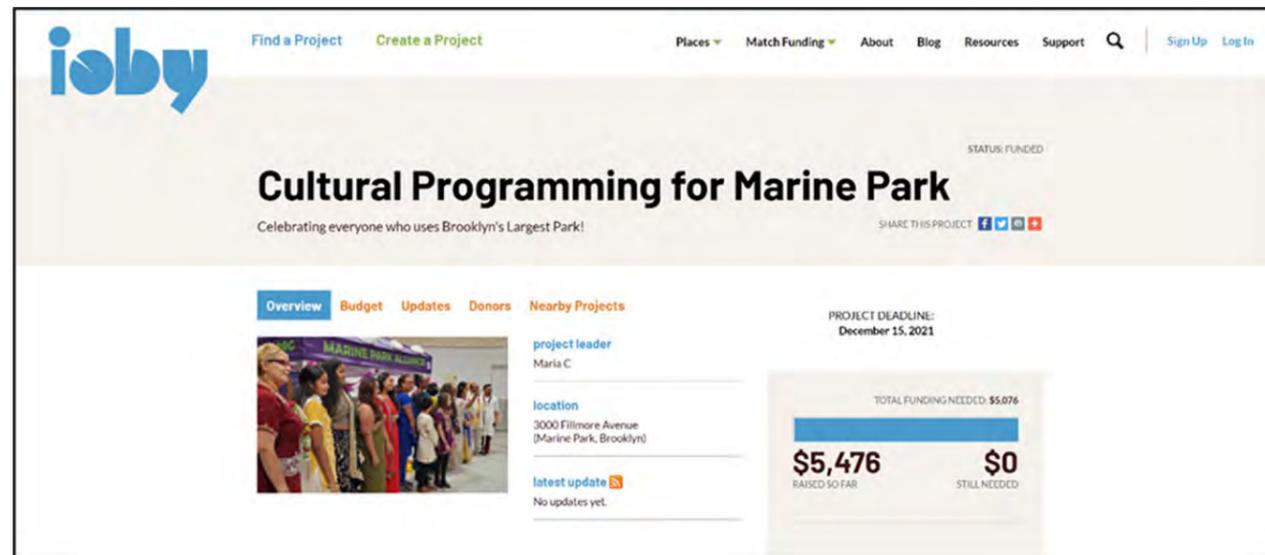

Figure 6.1 - *IOBY Platform*

Figure 6.2 - *Foundation/ Friends Group*

Friends Groups

The value of this strategy is in the form of time, labor, funding and/or capital. These groups are formed to raise money, typically for a single focus purpose that could include a park facility or program that will better the community as a whole as well as their special interests.

Implication for Apex: Apex should consider establishing Friend's groups to help raise money for capital needs, operational and maintenance needs for some special facilities in Apex such as a nature center and some special use parks like a Universal Playground. Friends' groups could also be established in the Town for neighborhood parks to support clean ups and maintenance and repair in parks.

Volunteerism

This revenue source is an indirect revenue source where individuals donate time to assist the Department by providing a product or service on an hourly basis. This reduces the organization's cost in providing the service and builds advocacy into the system. These hours are converted to "in-kind" dollars that can be used as matching money for grants the Department applies for in the future. The Department uses this resource now with volunteers working in the senior center, special events and youth sports.

Implication for Apex: The Town currently implements this funding strategy, but it could be expanded. Many volunteer programs are available throughout the Department and there is an opportunity for systemization and improved utilization. The goal should be to reach 12-15 percent of total paid staffing hours to be supported by volunteer hours to help operate the system and add additional staffing assistance. This usually takes a full-time or dedicated part-time volunteer coordinator to achieve this hourly volunteer goal, but it can be done. Tracking volunteer hours and applying the value at $22 an hour can be used for an in-kind match for state and federal grants.

Private Donations

Private Donations may also be received in the form of capital and operational funds. This also can include land for new parks or for conservation purposes. It could also include use of existing facilities for all types of recreation experiences, recreation equipment, art, or in-kind services. It can also include donations for a scholarship program for low-income families.

Implication for Apex: Private donations require a strategy to identify people capable of investing in the park system's future. Working with a park foundation could enhance these opportunities greatly if developed and put into action for the long-term development of the park and recreation system in Apex.

Figure 6.3- *Fundraising Event*

Special Fundraisers

Many park and recreation agencies have special fundraisers on an annual basis to help cover specific programs and capital projects.

Implication for Apex: Currently, there are not any special fundraisers for parks and recreation in the Town. If the Town decided to pursue this revenue source, it requires a cost/benefit analysis of staff time required to put on the event versus the return on investment (ROI). Ideally, if a new Parks Foundation were created it could conduct an annual fundraiser to help generate the revenue in one large event e.g., the Parks Alliance of Indianapolis.

CAPITAL FUNDING SOURCES

Capital Fees

Capital fees are added to the cost of revenue producing facilities such as golf courses, pools, recreation centers, hospitality centers and sports complexes that are lifted after the improvement is paid off. The Town operates special facilities in Apex now and charges user fees to cover operating expenses and contribute toward the cash balance that can be used to reinvest into the community centers and new sports complex. This could be applied to the new sports complexes, or new indoor senior center.

Implication for Apex: The Town should consider a capital fee for their sports field fees and their community centers that can be dedicated to capital improvements for the future especially in replacing all weather turf fields that normally need replaced every ten years.

Development Fees/Impact Fees

These impact fees are assessed on the development of new residential properties with the proceeds to be used for parks and recreation purposes, such as acquiring land for new parks as well as creating neighborhood and community parks for development. The Town has a land dedication fee of $3,700 for parks now where the developer pays the fee for the number of acres developed or gives land to the Town. The Town does not have a park development impact fee that treats parks as infrastructure similar to roads and sewers in the community. A development impact fee can be $1,500 to $5,000 per house developed depending on the value of the house being developed to provide infrastructure improvements for parks, trails, and community facilities beyond land.

Implication for Apex: The Town does have a land dedication fee in place now to help them stay ahead of the growth for acquiring park land. This funding source is in place, but the Town is growing so fast that it should be considered in the future to include an infrastructure fee as well for park and recreation improvements. This could be a major source of funding for the Town in the development of new neighborhood and community parks and trails in the Town for the future.

Public Private Partnerships (P3)

These P3 arrangements are between the Town and a private company to contract and finance infrastructure projects. The private sector financing can help to bring projects in on time and under budget with risk held by the partners. The Town is required to provide payment over an identified period of time from an existing or newly developed source or incorporate capital fees to users of the project.

Implication for Apex: The Town could explore this opportunity, particularly for future recreation development such as another community center, aquatic center or a signature park.

Hotel Transient Taxes:

Hotel Transient Taxes are used to help finance many parks type projects across the United States. This source is usually for revenue producing facilities that create events and draw people to stay in the Town. This could be applied to sports complexes and special event areas.

Implication for Apex: This funding source could work for development of future sports complex facilities as well as for a special event area that draws people into the Town. A example of this occurred when Apex receive recent funding from a Wake County Tax Program.

USER FEES

Recreation Service Fees

This is a dedicated user fee, which can be established through a local ordinance or other government procedures, for the purpose of constructing and maintaining recreation facilities. The fee can apply to all organized activities, which require a reservation of some type or other activity, as defined by the local government. Examples of such activities include adult basketball, volleyball, tennis, pickleball, softball leagues, youth baseball, soccer, golf, football and softball leagues and special interest classes.

All special facilities charge user fees to cover operating expenses and contribute towards cash balances that may be used to reinvest in the of cost sports center operations or facilities.

Implication for Apex: The Town needs to complete an updated fee survey and pricing policy to determine where current pricing is and explore the implementation feasibility of this strategy at existing facilities, as well as potential future ones such as a new aquatic facility.

Fees and Charges

Fees and charges must be market-driven and should be in line with charges in comparably sized cities based on both public and private facilities in the region. The potential outcome of revenue generation is consistent with national trends relating to public park and recreation agencies, which generate an average of 30 to 40 percent of operating costs from fees and charges. The Town has done a good job utilizing user fees to offset operational costs for programs, classes, events, dog parks, rentals and permits.

Implication for Apex: The Department already has this source in place. The Town currently implements this funding strategy. Fees and charges generate a good portion of the Department's budget now. There are other opportunities to explore ways user fees can assist generating revenue for the Department as well as where the user receives a higher benefit than the general taxpayer and where they should pay for a higher level of exclusive use.

Permits (special use permits)

These special permits allow individuals to use specific park property for their financial gain. The town either receives a set amount of money or a percentage of the gross service that is being provided.

Implication for Apex: The Town has some mobile food permits and is they are working to determine the ongoing need to implement more permits. The town also permits caterers to provide food at events held in their permitted facilities and this practice needs to continue as a viable funding source for the Department.

Reservations

This revenue source comes from the right to reserve specific public property for a set amount of time. The reservation rates are usually set and apply to meeting rooms for weddings, reunions, special use facilities like sports tournament or other types of facilities for special activities.

Implication for Apex: Reservations are already in place at all community park picnic areas, sports facilities and for reservable public buildings. Now is an opportune time to reevaluate rental pricing based on the market, the quality of the experience and differential pricing using prime time / non-prime time, weekday / weekend rates and other facility rentals.

GRANTS

CDBG Funding

Funding is received in accordance with the Community Development Block Grant (CDBG) Program's national objectives as established by the U.S Department of Housing and Urban Development. Funding may be applied to such programs as Infrastructure Improvements, Public Facility and Park Improvements, Human Service Enhancements, Lead-Based Paint Education and Reduction, Housing Education Assistance, Economic Development and Anti-Poverty Strategies.

Implication for Apex: This funding source could be used for scholarships or could be used for other purposes in the park system that can help improve neighborhood park related facilities. The town should consider hiring a contracted grants coordinator to help them develop and acquire grants for the future.

TAX FUNDING SOURCES

Parks and Recreation "Special Park and Recreation Sales Tax"

One new tax that the town could consider, if appropriate, is a parks and recreation "special park and recreation sales tax." This tax does not require voter approval. A special sales tax would provide dedicated revenues exclusively for parks and recreation functions such as acquiring park land development of recreation and park facilities and could come in the form of a .5 cent sales tax with much of the tax being paid by people who live outside of the town but use town services.

Implication for Apex: This funding strategy is an opportunity for the town to consider implementing. This revenue source has been highly successful in funding park systems nationwide, most recently in Hilliard, Ohio that provides $8 million a year for parks development and improvements in the town over 20 years. This tax is extremely popular in high traffic tourism type cities for county and state parks.

Special Improvement District/Benefit District

Taxing districts established to provide funds for certain types of improvements or affected properties and benefit a specific group of park related needs: landscaping, acquisition of art, and supplemental services for improvement and promotion, including recreation and cultural enhancements.

Implication for Apex: This funding strategy is an opportunity for the Town to explore implementing. This may require voter approval in North Carolina and would provide an elevated level of economic impact to the Town.

Food & Beverage Sales Tax

The tax is usually associated with fast food. Cities have used this tax where they have a food and beverage sales tax on fast food. They receive a portion of this funding source for operational or capital expenses.

Implication for Apex: This funding strategy is an opportunity for the Town to explore the feasibility of implementation. This tax is usually in the .250 percent to .5 percent category on fast food only.

Earnings Tax

Many cities use an earning tax to support community facilities that benefit citizens and people who work in the Town. Westerville Ohio used this source to help fund their community center.

Implication for Apex: It would be a dedicated source of funding to help develop a community recreation facility such as a future pool for the community.

FRANCHISES AND LICENSES

Pouring Rights

Private soft drink companies that implement agreements with organizations for exclusive pouring rights within facilities. A portion of the gross sales goes back to the organization.

Implication for Apex: Currently, the Town does not have this funding strategy in place. There may be an opportunity for a Townwide vending agreement. The volume of sales must be high enough to qualify, and further analysis would be required.

Private Contractors

Private contractors are used for classes not operated by park programmers and is periodically researched for viability. This funding source is a contract with a non-governmental business to provide and operate desirable recreation activities financed, constructed, and operated by the private sector, with additional compensation paid to the organization.

Implication for Apex: The Town currently does not use this funding strategy but should consider where appropriate.

Advertising Sales

Advertising can be included on scoreboards at sports complexes and some of these opportunities may exist already but could be included in a Recreation Program Guide and other areas of parks operation. This revenue source is for the sale of tasteful and appropriate advertising on park and recreation related items such as in an organization's printed materials, on scoreboards and other visible products or services that are consumable or permanent and expose the product or service park attendees.

Implication for Apex: The Town does very little in this funding area but it could have real potential in the department.

Inter-local Agreements

The Town is already collaborating with the school district but increased collaboration is possible. Contractual relationships between two or more local units of government and between a local unit of government and a non-profit organization for the joint usage and development of sports fields, regional parks, or other facilities.

Implication for Apex: The Town currently implements this funding strategy, and other areas could benefit from this type of revenue generation.

BUILD ON FINANCIAL STRENGTHS

The Department displays an above average management of financial and budgeting functions when compared to most park and recreation agencies. The Department experienced some revenue volatility due to COVID-19. The strategies presented are intended to build on the Department's strengths. The Department may consider the following principles and identify new potential strategies when setting operational and budgetary goals.

Revenue Policies

The Department performs an annual budget review of programs and operations, as well as an annual review that is an assessment of the revenue recovery and operating costs for each program. The next step in revenue formulation is to update the pricing policy and earned income policy.

A pricing policy is designed to provide the park systems consistent guidelines in pricing admissions, facilities and program services. This allows users to better understand the philosophy behind how a service is priced and the appropriate value. Furthermore, the level of service and benefit users receive is translated into a price that is based on a set subsidy level, the level of individual consumption, or exclusivity that is involved above what a general taxpayer receives. The subsidy levels should be in line with the Department's program and pricing plan. The pricing policy is expressed in terms of the percentage of cost recovery the agency is trying to recover in proportion to the agency's overall budget and the activity goal within a specific core business.

Figure 6.4 - *Fishing Pier at Apex Community Park*

07 | OPERATIONS + MAINTENANCE ASSESSMENT

IN THIS CHAPTER

The objective of the operations and maintenance assessment is to provide an overall evaluation of how the PRCR Department provides maintenance services for its facilities, greenways, parks, athletic fields and open spaces. The project team understands that the parks system is growing and putting additional demand on the current staff to continue to provide high quality services the residents expect from the Department. As the Town population continues to increase, the PRCR Department will need to have a robust staffing organization and maintenance management plan to ensure sustained service for existing amenities while developing new parks and facilities to meet the growing recreational demand.

METHODOLOGY

The project team conducted two work sessions with Apex Parks, Recreation and Cultural Resources Department maintenance staff and supervisors in October 2021. These interviews informed the project team about the department organization, the staff's role in the organization, their positions and job duties, as well as their view of internal processes to manage and operate the parks system. The staff provided feedback regarding key issues in the park system and specific opportunities this Master Plan can incorporate as part of the recommendations. The groups were asked a series of questions and given the opportunity to ask the interviewer for clarification or explanation, as well as receive information about the overall master planning process. The interview questions are in bold text, answers summarized, and some direct answers were chosen to appear in the bullet point list. The report also includes key recommendations for parks maintenance strategies.

INTERVIEWS AND FIELD ASSESSMENT FINDINGS

Approach to Parks and Facilities Maintenance

› Staff adheres to basic parks and facilities maintenance standards established by the Department.

› Staff currently takes care of the developed

Staff Comments on Approach to Parks and Facilities Maintenance:

› We have not done a lot of (level of service) maintenance for park amenities except maybe for sports fields.

› Equipment should be put on a three-year replacement plan instead of five.

› We do not factor in overhead into our costs.

› Most things we do are basic standards.

› Facility usage – such as not enough pickleball courts.

› Complaints about the restrooms and over used trash cans.

› Overcrowding of space and trash cans.

› Ninety percent of the complaints are overuse of the existing facilities.

› Anything for grounds we do including park tree plantings.

› We base our equipment time on 600 hours a year, so we are in a five-year replacement schedule.

› Ninety-five percent of the projects we are engaged in maintaining we have the right equipment to do the job right.

parkland and the four joint-use school sites. The school sites maintenance work is also contracted out.

› Staff conducts park maintenance such as mowing, picking up trash, cleaning restrooms on a cyclical basis except for sports fields and greenway inspections.

› The staff indicates they react sporadically to many issues that happen, instead of being proactive in their efforts to address maintenance in a systematic manner.

› With an open culture, the resources the Department receives are put to effective use across the staff and operations, as well as in all programs. Currently, many staff members work on different aspects of the services because the Department is understaffed.

› With a variety of different facilities and many types of programs, different skill sets are needed to provide effective supervision and all other tasks required per facility. The Department also assures all scheduling is in place, and managing partnerships are especially important to the staff.

› Varied approaches are used to manage people, so sharing staff is difficult. Previously, there were management plans for the buildings and separate plans for the facility division, and the facility division was responsible for a portion of the buildings. However, those arrangements were not effective and are no longer used. It is important to keep supervisors informed of park activity and what goes on in other departments through inter-system reports. A functional organizational structure is not in place and should be considered to help address the issues present and clarify job descriptions and duties.

› The maintenance staff does some tree planting and care. However, with no horticulturist on staff, it would be beneficial to collaborate with the Town Arborist for the landscape and foliage needs of the department.

› The maintenance staff gets good support from public works, and the staff indicated the teams work well together.

Key Challenges with Current Parks and Facilities Maintenance

› Overuse of facilities and overcrowding of spaces are the main complaints. Poor maintenance of restrooms and overflowing trash cans create unsightly parks.

› Park facilities and amenities need updating, as well as indoor workspace, staff office areas, and outdoor storage areas of the maintenance facilities. Many of these areas are too small and functionally inefficient.

› Wi-fi is not present in the offices and workshop areas of the maintenance shop which makes it impossible for the staff to attend virtual meetings.

› Understaffing and staff retention creates issues where tasks are not accomplished and there are not enough personnel to cover work tasks while

others attend meetings / training. The number of staff employees is low in all areas, from the front desk personnel to programmers and is compounded by the additional problem of finding people to hire retain. The Town is making strides to evaluate their pay scale in order to be competitive with other employers in town. Cross training and specific job training are desired by the staff so team members can learn to perform other tasks, when necessary, instead of attempting to "put out fires".

› The staff needs to determine maintenance standards to manage tasks and the staff accordingly.

› Social media has become the venue for people to share both positive and negative comments and criticism about the parks system and this puts the staff in a defensive position when complaints are aired openly.

› The Staff's routine work frequently gets interrupted by high priority tasks that would be better managed by a rapid response team. Their routine job responsibilities, non-planned tasks, and a full week of park open days are tough on the staff, and often they do not take breaks in attempts to do what is needed. These issues have become very frustrating for the staff, and it is incredibly challenging to be responsive in effective ways. To prevent burnout, the staff needs have the correct number of employees for work in the system. They need to learn to be proactive in the maintenance approach, as well as do more preventative maintenance throughout the system.

Staffing Organization and Culture

› The staff indicated that the Department has been struggling with understaffing and a competitive pay scale. Other businesses are raising pay significantly causing staff to leave the parks system to seek higher pay elsewhere

› There are no seasonal employees, and with a lack of part time staff and hiring being so difficult, people that are hired do not stay long because of the pay making the problems of hiring an ongoing issue.

› A salary study was just finished for the Town. The results will assist management to evaluate entry level pay and routine pay raises that will hopefully recruit and retain new employees.

› Programmers are struggling to get new hires as other departments are with the same issue of pay. Once new hires are on board, training is inconsistent and therefore the new employee is not well informed of department policies and their responsibilities. Training time, although minimal, puts a strain on staff members, and if the employee quits, training time by the staff is completely wasted.

› Staff mentioned that to address the understaffing and under pay challenges, a business plan is being implemented that will make changes to address the upcoming new demands with the Pleasant Park opening.

Staff Comments on Key Challenges with Parks and Facilities Maintenance:

› Staffing levels are not appropriate for the expectations of key leaders in the Town or the Department - as we are always putting out fires so we cannot be more proactive than reactive.

› We need some updated facilities like restrooms in the parks.

› We need cross training so other team members can do other jobs when needed.

› Staff resources are the most challenging with the low staffing levels for what we can provide to the town.

› They need to do a salary study. Yes, they have done this, but we are out of touch with what we are offering. It has been difficult to find people and staff training takes a lot of time.

› We get asked to do a lot of things by council, and we are the go-to department.

› There is a list of things that we should be doing. We need a rapid response team to react to things the council wants us to do without taking people off routine and scheduled tasks.

› Social media has affected us tremendously and this puts us in a defensive position.

Staff Comments on Staffing Organization + Culture

› Park maintenance is consistently hiring new staff.

› Most of our park maintenance positions are at $14.00, and everyone (other local businesses) is moving to $14.00-$15.00 to be competitive in the marketplace. Some retail operations are above $20 per hour.

› Staffing needs to be right sized, or people get burned out.

› Hire more staff or right size the department to meet expectations.

› We are learning skills on the fly.

› It is not a team building culture here.

› The staff is doing more in other areas of the Town than just in parks which takes time away from regular duties.

› The culture of the organization is good. We have gone through different staff members over the years.

› The culture is open, and we have had the resources to do what we think the community needs.

› We have the same end goal.

› While the staff stated that the working culture is geared toward keeping a solid team together and moving toward a mutual goal of accomplishing tasks and operating effectively, there is also a need to develop strategic efforts to build the team spirit within the Department.

› New leadership in the system has discovered there are staff members with talents that are not being utilized. Exposing and utilizing these talents could reduce some responsibilities in several areas and build better employees. By not using these untapped talents, the staff must adjust to a variety of issues and demanding circumstances. Evaluating the staff and their talents should be done much more effectively, as well as providing training for supervisors to manage better within the system. It is difficult to be engaged with the requirements of the facilities without direct access for what is needed in facilities throughout the system. The Department is working on staffing the organization for effective management of indoor facilities.

› If the size of the department and job responsibilities of staff were adjusted and efforts made to implement the changes, the department would benefit with increased efficiency and completed tasks. Implementing staff training and giving new employees an opportunity to gain experience with their job responsibilities would improve efficiency. Training inexperienced staff members would reduce issues about poorly done tasks and minimize work stress with the staff.

OPERATIONAL STANDARDS

Asset Lifecycle Replacement

› Per staff, there is no established replacement schedule for all assets. The equipment is well suited for the projects they have currently, but initial observance indicates that most of the equipment is at or near the end of its useful life and the replacement schedule is five years. The staff feels that the replacement schedule currently in place is not effective. There is a need to evaluate the equipment replacement plan. The life cycle turnover of equipment needs to be reduced by two years, and new equipment should provide more capacity than it is currently capable of doing.

▲ Figure 7.1 - *Town of Apex Staff*

› Major equipment maintenance is contracted to the Fleet Department and the staff performs minor maintenance. The maintenance shops are not large enough to perform maintenance work effectively. This is a key problem in the system that must be addressed.

› Complaints are received as work orders and sports fields complaints are measured for future work on the fields. The department does not have any other metrics they measure at this time.

› It was mentioned that complete operational standards are not present, and communication within the system is insufficient. If formal standards were established and followed, communication among the staff would improve and expectations would be understood. This would help the park and recreation divisions perform departmental duties and not overlap efforts or neglect tasks that need to be done.

› The lack of staff members is a problem throughout the system, so many facilities are overused per facility and visitors are noticing that programs and services are not operating as well as they used to. More visitors in the existing parks create a need for additional parks and amenities, but the staff is already overextended with the maintenance tasks and duties they have now. If more facilities are built, the understaffing problem will be even more problematic, and programs would be operated even less effectively.

› A position should be created for an Assistant Director of Parks with supervisory capacity over Parks Planning and the Project and Operations Manager in the system. This position should also engage with the Director regarding operations and functions of the staff and projects throughout the system. A GIS Data Manger position is needed to maintain the up-to-date GIS database and manage the mapping needs.

› The program staff tracks participation with park and recreation registration software, so user information of all programs is available. This information can assist supervisors to understand programs that are underperforming or performing well if the data was used in more depth. Typical data reports using Active software are generated about park use and are shared with the town council.

Staff Comments on Operational Standards

› Every asset and all equipment we have has a replacement schedule.

› Lifecycle replacement schedule on everything is needed.

› Assets in the park that need to be updated are identified and get put into the next fiscal year budget.

› We do not have a schedule.

› Our work order system is working well and is user friendly. It is easy to manage.

› We have our inventory system included in it.

› We are in the midst of getting tablets in our vehicles.

› We are changing over to laptops.

› None of our maintenance facilities have Wi-fi.

› We do measure complaints for sports fields.

› Complaints come in as a work order.

› Larger shops we work in must be made a priority for us to efficient and effective.

› I would say park and recreation divisions have their own approach to their work and it is not consistent across the system.

› A few years ago, there was structure for managing facilities. The facility division takes care of some of the buildings, but it is inconsistent and fractured now.

› We track the key elements of programs through the software we have and how much they are used.

› The biggest complaint from supervisors is that we do not have enough facilities to accommodate the number of people who want to use them.

› Keeping facilities staffed is the biggest issue we face.

›   Correcting many staff issues throughout the system is the most meaningful change wanted. Do to the lack of staff members to manage daily tasks and solve problems, arrangement of staffing to fit departments, and making staff members more efficient, the staff is putting into so many areas beyond their areas of responsibility. The mix of issues that need to be addressed and changed for the system to recover operationally must be made a priority.

Technology and Work Order System

›   The existing work order system is easy to operate, has an inventory system included, and it works well. Acquiring laptops is in the plan for next year's budget, and there will also be tablets in the vehicles.

›   Currently there is no Wi-fi at any of the maintenance facilities in the parks, and it will soon be added to benefit the maintenance staff in virtual meetings, email communications and ordering supplies.

›   There is a good IT Department within the Town, yet more mobile technology would be helpful for throughout the system. There is a lack of staff members in all departments of the system, and although the IT Department does well to maintain the computers and networks, they too would benefit from additional staff.

›   Consideration should be made to include a GIS Specialist as part of the staff to monitor and track inventory of park assets, provide system mapping for marketing, produce and utilize town documentation in all formats, support notifications to on-line for project updates and master plan documents. They would create the departments SDE and provide support for the background information needed for Cityworks software.

Marketing Division

›   Although the staff has two members with job titles that include marketing, the absence of a formal marketing division limits communication with the community about what programs are offered, program schedules, and events in the parks. More involvement by these staff members, use of marketing resources, and collaboration with the Communications Department to increase relations with the community as well as partners of the system would be a step forward to improving outreach.

›   A marketing department would work to establish valued partnerships and maintain existing relationships so the partners will continue to provide support to the park system.

›   Increasing in-house marketing efforts and collaborating with the Communication Department of the Town will engage more effective communication to the residents in the community.

›   The staff indicated their desire to establish a marketing division so parks will have a better connection with the community in the future and will encourage more visitors to the parks.

> **Staff Comments on Technology and Work Order System**
>
> ›   We have a good IT department and at times we need more mobile technology.
> ›   There is a high need for technology training at entry skill levels.
> ›   People are training on the fly.

Business Plans

›   The staff indicated that the parks in the system, facilities, and major attractions currently do not have any business plans in place.

›   A business plan would:

–   Manage and lead the staff with a business context approach.

–   Develop the cost of services. (direct and indirect costs)

–   Outline goals and measure outcomes as they apply to:

·   Market impact, cost recovery, operational efficiency, facility use, impact on

·   Programs, activate spaces, and increase equipment efficiency and effectiveness.

·   Define Staff Costs (full time, part time, and seasonal) as a part of the budget.

·   Nurture partner relationships. (regarding equality and fairness)

·   Incorporate sponsorships. (as a part of earned income)

–   Strategically implement goals.

Full Cost Of Services

›   Costs are factored on work orders for labor and supplies, but overhead costs are not included. Individual staff hours have been tracked in the past and should also be calculated with other costs.

›   Knowing the overall cost of each program is important but understanding direct and indirect expenses of programs needs to be addressed in the future. Key Performance Indicators (KPIs) need to be established to show what programs perform the best and which generate the most revenue, as well as those that have low attendance, and their costs exceed revenue generated.

Figure 7.2 - *John M. Brown Community Center*

SUMMARY OF FINDINGS

› A maintenance management plan needs to be developed for the park and recreation system that focuses on maintenance standards, true cost to maintain parks, trails, sports fields, park amenities, and natural areas to adequately forecast the true cost of delivery that a quality park experience is to the users of the system. This plan would include direct and indirect costs.

› Staffing requirements need to be established for delivering maintenance standards for fulltime, part-time, and seasonal positions in the agency for budgeting purposes. This would include standards for park maintenance, trails, sports fields, park amenities, indoor facilities, and natural areas. Staffing pay needs to reflect what the market is paying to encourage new hires and keep employees within the system.

› Equipment replacement schedules need to be based on hours of operation not years.

› A lifecycle assessment needs to be established for each park asset's lifecycle and what the replacement schedule should be. Money should be set aside to update assets each year so they don't lose value or appeal with residents. At least 5% of the total asset value should designated each year to take care of what the agency already owns.

› Equipment used to take care of parks needs to be of high quality, experience minimal breakdowns, and be able to withstand the level of use expected from each piece of equipment in the system.

› Maintenance shops are not adequate to meet the needs of an efficient maintenance operation.

› Maintenance shops need to be redesigned and updated to provide adequate workspace for the staff and have adequate storage space to protect supplies and equipment and large enough to manage indoor and outdoor requirements for an effective maintenance division.

› Maintenance outcomes need to be measurable for better lifecycle management, equipment management, staff management, customer satisfaction, and cost per unit to maintain.

› Maintenance technology needs to be updated to include the use of laptops and field tablets to record work orders, work completed, staff time, equipment used, and lifecycle management of assets.

› Develop a team culture through proper training, use proper crew sizes to adequately get the work done, and use suitable field supervision to highlight accomplishments for the staff throughout the year.

› The maintenance staff needs to be involved in park planning and design to clearly articulate maintenance issues that may occur in park design so that they can operate in the most effective manner.

› Establish methods for environmental care of natural resources for maintenance crews to properly take care of these resources for the community. The Town has 43 percent of the park land in a natural state and this amount of parkland requires a natural areas management plan to be in place.

› A forestry plan needs to be instituted for the park system that should include an inventory assessment and cataloging of trees in the parks system with the opportunity to coordinate efforts with the Town Forester and possibly include all trees within Town rights-of ways.

› Consider the benefits of keeping parks maintenance division within the Department
  – Public Works employees typically only work Monday – Friday and expect overtime on weekends.
    • Most park employees work on weekends when the parks are most occupied by visitors and restrooms need cleaned, trash picked up and public use areas need routine upkeep.
  – The staff will be able to manage their tasks more effectively and determine how additional maintenance requirements for the Town will be managed based on the type of program or event.
  – The staff will be involved in the budget process and provide information about equipment, staffing and other needs that require funds.
  – They will be able to track and implement KPI's and measure results that will help them tell their story and

express their needs to the Town leadership.
  – They will have more control over hiring staff including (starting pay, incremental and incentive pay structure and payroll for work crews)
  – They will adjust the lifecycle replacement schedules for amenities in the parks and also maintenance for equipment.
  – They can review equipment specifications so what is purchased is what they need to operate in the most efficient manner.
  – They can be more involved in meetings to convey what their division is doing and accomplishing to ensure they understand what park visitors' feel is important.
  – Park employees take pride in their work and are able to work independently or teams as a division.
  – Most public agencies would not have the Public Works staff manage golf course maintenance and the same would apply to them managing sports fields.

› Recognizing the challenges associated with growing development, the Town is addressing the understaffing challenge by developing a staffing organization plan. This chart is presented below. In addition to positions mentioned in the chart, there is a need to add the following new positions with the Department:
  – ***Assistant Director of Parks:*** Support the Director with operations of the system, project planning, and high-level functions of the staff.
  – ***Volunteer Coordinator:*** Manage work schedules, tasks, and hours worked for individual volunteers and volunteer groups. (Adopt a Park, Community Service Workers, Scout Groups and Events)
  – ***Marketing Supervisor:*** Oversee the marketing department staff, development of program guides, registration staff, social media, and customer service training for full time, part-time and seasonal staff.
  – ***Business Development Coordinator:*** Perform following tasks
    • Track KPI's, develop and manage business plans for the revenue producing facilities in the agency.
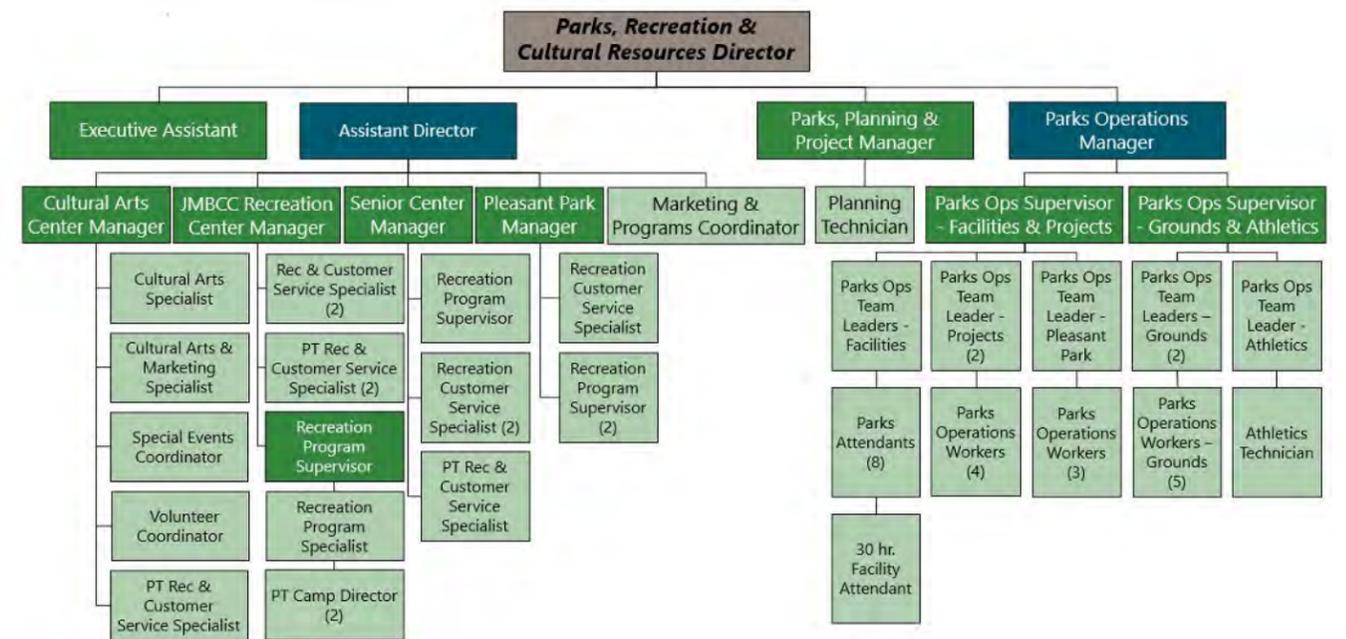
Figure 7.3 - *PRCR Department Organization Chart (2022)*

- Assist staff in tracking true cost of services both direct and indirect costs, assist in budget development and track user data for staff to make better decisions.
- Create earned income opportunities by focusing on grants, partnership equity and sponsorships.

- *Public Art Coordinator:* Manage public art throughout the Town, coordinate locations with private developers, develop partnerships with local artists, develop public art plan, and manage artist commission process.

- *Pleasant Park Operations Supervisor:* Manage operations at the new Pleasant Park site.

- *GIS Data Manager:* Maintain up-to-date GIS data and maps, collaborate iwth other departments to ensure consistency of information.

MAINTENANCE STANDARDS

The division should prioritize and strive to achieve maintenance standards. Three maintenance levels are defined in the following outline. The difference between levels is the frequency of maintenance as determined by the Division's abilities. Maintenance Standards have the following general characteristics.

› *Level 1 Maintenance* – High profile areas where the entire area is visible to foot traffic; Entrances to community centers, signature facilities and areas where funding permits a higher level of maintenance. Example of maintenance activities include; Mowing and edging twice per week, 95 percent turf coverage at start of season with 5 percent weeds and no bare areas, edging once per week, tree pruning cycle once annually, and litter pickup twice per week.

› *Level 2 Maintenance* – Moderate to heavy use typical of most parks. Maintenance activities include; Mowing and edging once per week, 88 percent turf coverage at the start of season with 8 percent weeds and 4 percent bare areas, a tree pruning cycle every seven years, and litter pickup once per week.

› *Level 3 Maintenance* – Typical for low usage parks or when funding is limited. Maintenance activities include; Mowing and edging every 10 days, 80 percent turf coverage at start of season with 20 percent weeds, edging once per week or every 2 weeks in the off-season, tree pruning cycle every 10 years and litter pickup every other week.

In areas where turf does not impact the quality of experience (i.e., dog parks) or non-landscaped open space areas, demand-based maintenance is provided according to funding availability. Level 1 and level 2 standards are described in greater detail below.

Figure 7.4 - *Kelly Road Park*

Level 1 Maintenance Standards

Maintenance standards can change by season and month depending on the park and level of use. Standards will be calculated by the time required for maintenance tasks and equipment needed to develop the required operation budgets. The difference between Level 1 and Level 2 standards is the frequency rate.

Turf Maintenance – high profile areas (small areas, entire area visible to foot traffic)
› Mowing will occur two times per week
› Mowing heights
  - Two ½" during warm season (daytime highs consistently above 75 degrees)
› Edging of all turf perimeters will occur one time per week
› Ninety-five percent turf coverage
› Three percent weed infestation for existing areas (all efforts should be made to keep new areas 100 percent weed free)
› Two percent bare area
› Remove grass clippings if visible
› Aerate one time per year (additionally if needed)
› Inspect thatch layer regularly and remove as needed
› Test soil and water annually
  - Additional testing will occur if deemed necessary
› Soil moisture will be consistent
  - No wet areas
  - No dry areas
  - Firm enough for foot and mower traffic
  - Apply wetting agents to assist in uniform soil moisture
  - Hand water as needed
› Inspect daily for insects, disease and stress with response to outbreaks within 24 hours
› Fertilize three times per year
› Top dress and over seed once a year

Tree and Shrub Maintenance
› Prune and trim trees and shrubs as dictated by species twice annually during spring and fall
› Remove sucker growth annually
› Test soil annually to ensure application of appropriate nutrients as needed
› Apply fertilizer to plant species according to their optimum requirements as needed or yearly
› Inspect regularly for insects and diseases. Respond to outbreaks within 48 hours
› Place two inches of organic mulch around each tree within a minimum of an 18-inch ring
› Place two inches of organic mulch around shrub beds to minimize weed growth

› Remove hazardous limbs and plants immediately

› Remove dead trees and plant material immediately unless located within an environmental area

› Remove or treat invasive plants within 5 days of discovery

› Flower bed maintenance done yearly

› Fertilize once a year

› Pond maintenance done yearly and ponds inspected weekly

› Water features maintained weekly

› Invasive plant removal annually

Storm Cleanup

› Inspect drain covers at least twice monthly, before rain, and immediately after flooding

› Remove debris and organic materials from drain covers immediately

› Maintain water inlet height at 100 percent of design standard

Irrigation Systems

› Inspect irrigation systems at least once per month or computer monitor as necessary

› Initiate repairs to non-functioning systems within 24 hours of discovery

› Back flow testing done annually

Litter Control

› Pick up litter and empty containers at least once daily or more often as needed

› Remove leaves and organic debris once a week or as necessary

Playground Maintenance

› Audit each playground to ensure compliance with the current version of ASTM Performance Standard F1487 and the Consumer Product Safety Commission "Handbook for Public Playground Safety"

› Complete low-frequency playground inspections at least bi-monthly or as required

› Inspections are to be completed by a Certified Playground Safety Inspector (CPSI).

› Related repairs are to be done immediately, and initiate other repairs within 48 hours of discovery

› Complete high-frequency inspections at least weekly

› Groom playground surfaces three times weekly, nine months a year

Hard Surface Maintenance

› Remove debris and broken glass immediately upon discovery

› Remove sand, dirt, and organic debris from walks and hard-court surfaces weekly

› Remove trip hazards from pedestrian areas immediately upon discovery

› Paint fading or indistinct instructional and directional signs annually

› Blow grass clippings after mowing around hard surfaces

› Remove grass growing in cracks as needed

Outdoor Court Maintenance

› Inspect tennis and basketball courts at least once monthly. Complete all repairs within 48 hours of discovery

› Repaint lines at least once each year

› Replace basketball nets when frayed, broken, or missing

› Maintain basketball goal posts, backboards, rims, tennis net posts, fencing, and hardware to original design specifications

Trail Maintenance

› Inspect hard and soft surface trails at least once monthly

› Remove dirt, sand, and organic debris from hard surfaces at least once weekly

› Remove organic debris from soft surfaces at least once weekly

› Maintain a uniform 3-to-4-inch depth of compacted material on soft surface trails at all times

› Graffiti should be removed weekly

› Remove overhanging branches within 7 feet of the trail surface at least twice annually

› Use lawn equipment or chemicals to control growth twenty-four inches on either side of the trails

› Inspect signs, benches and other site amenities at least once monthly. Complete repairs within 10 days of discovery

› Inspect and make necessary repairs to lighting systems at least once monthly

› Repair or replace bulbs to maintain lighting levels to design specifications

Site Amenity Maintenance

› Inspect benches, trash containers, picnic tables and grills, bicycle racks, flag poles, drinking fountains, and other site amenities at least monthly. Complete repairs within 24 hours of discovery

› Clean, scrub and power wash amenities twice yearly

› Inspect sites daily for insects, disease, and stress and respond to outbreaks within 24 hours

Athletic fields grounds maintenance (Baseball, Soccer, Softball and Rugby) Artificial turf and grass turf as below.

› Standards for artificial turf

 – Keep turf free from pollutants. Airborne: dust, pollen, smoke, ashes – hose down by rinsing with water

 – Stains:

 • Wet stain - use a wet rag and soak the stain then scrub and dry. Repeat multiple times if necessary

 • Dry stain – use a scraper (moderate edge, not knife or razor) then clean with mild detergent. Dry and repeat until clean.

 – Animal Waste: Urine: hose and rinse away as soon as possible. Feces: remove solid waste, use mild detergent, rinse and repeat until clean. Dry feces – scrape, use mild detergent, rinse and dry. Repeat

until clean. Wet feces – remove, use mild detergent, rinse and dry. Repeat if necessary.

- Outside turf: Wet / warm weather conditions can create mold. Visually inspect for signs of mold, use mild detergent, rinse and repeat until clean. Use hydrogen peroxide if mold is extensive.
- Brush: Use a synthetic brush across traffic patterns when matted presence is visual.
- Contact turf manufacturer / installer for any other questions for care of your turn.
- Artificial turn has an approximate 10-year lifecycle (depending on extent of use). Financially plan for replacement enough years ahead to accommodate this capital expenditure.

These standards apply to grass fields that are dedicated to softball, baseball, soccer and rugby only:

- Use mower capable of "striping" the turf
- Mow twice weekly
- Mowing heights
    - 2" during cool season (daytime highs consistently below 75 degrees)
- Edging of field perimeters twice monthly
- Ninety-five percent turf coverage at the start of every season
- Eighty percent turf coverage after seasonal play begins
- Five percent weed infestation
- No bare areas at the start of every season
- Fifteen percent bare and weak areas will be acceptable after seasonal play begins
- Apply pre-germinated seed to heavily worn areas after every tournament Remove grass clippings if visible
- Aerate three times annually
- Aerate spots in high use areas as needed
- Inspect thatch layer regularly and remove as needed
- Test soil and water annually

› Additional testing will occur if deemed necessary

- Soil moisture will be consistent
    - No wet areas
    - No dry areas
    - Firm enough for foot and mower traffic
    - Apply wetting agents to assist in uniform soil moisture
    - Hand water as needed
- Inspect daily for insects, disease and stress. Respond to outbreaks within 24 hours
- Fertilize monthly
- Aerate and over seed yearly

› Fence and Gate Maintenance

- Inspect fences, gates and bollards at least twice annually. Complete safety-related repairs immediately. Complete other repairs within 48 hours of discovery
- Annually clean fences of debris

› Sign Maintenance

- Inspect sign lettering, surfaces, and posts at least once monthly
- Repair or replace signs to maintain design and safety standards within 24 hours of repair need
- Clean signs twice a year
- Cut back plant material annually or more often if needed
    - Pest Control
- In accordance with the Division's Integrated Pest Management Program (IPM), problem areas are inspected monthly and insect issues remedied immediately upon discovery
    - Vandalism and Graffiti Removal
- Initiate repairs immediately upon discovery. Document and photograph damage as necessary
    - Picnic Shelters
- Reserved units should be cleaned and litter removed prior to and after each reservation
- Minor repairs are made immediately upon discovery
- Non-reserved units are cleaned weekly by power washing, or as necessary
    - Lighting Security/Area
- Foot-candle levels will be maintained to preserve the original design
- Inspect once monthly
- Repair or replace burned out bulbs within 24 hours of discovery

Concession Standards: Outdoor (when developed in the future)

› Concession facilities to be thoroughly cleaned, wiped down, and sanitized before opening

› Electrical appliances checked for compliance and repaired if damaged

› Lights checked and repaired as needed

› Concession operating permits secured before opening

› Appliances cleaned thoroughly before opening

› Prices for concessions to be posted

› Cash registers tested to ensure they work properly

› Circuit breakers tested prior to opening

› Cleaning and sanitization supply available before opening

› Pick up debris daily

Closing Concession Standards: Outdoor

› Equipment cleaned thoroughly
› Expired and partially used supplies removed and discarded
› Electricity should be turned off
› Refrigerators turned off, sealed and cables secured
› Facility floors, sinks, and counters cleaned thoroughly
› Hoses cleaned and drained
› Kitchen cleaned thoroughly
› Inspections of standards to occur monthly

Restrooms

› Restrooms cleaned twice per day unless contracted
› Restrooms inspected hourly
› Restrooms locked and unlocked daily
› Replace waterless urinal cartridges monthly
› Leaks dealt with immediately and repaired within 24 hours of discovery

Open Space Standard

› Maintain natural appearance to open space areas
› Remove fallen trees and branches that pose a hazard to users
› Respond to disease and insect outbreaks within 24 hours of identification
› Inspect areas monthly
› Remove and clean dump sites within 48 hours of identification
› Post and maintain appropriate signage for each individual area
› Implement strategies to assist in reducing the stand of non-native invasive plants by 5 percent annually
› No large branches or debris will be allowed in parks and along perimeters

Figure 7.5 - *Kelly Road Park*

Level 2 Maintenance Standards

Maintenance standards can change by season and month depending on the park and level of use. Standards will be calculated by the time and equipment needed to develop the required operation budgets. The difference between Level 2 and Level 3 standards is the frequency rate.

Turf Maintenance

› Mowing to occur once weekly
› Mowing heights
    – 2½ inches during cool season (daytime highs consistently below 75 degrees)
› Edging of all turf perimeters to occur weekly during the season and every 2 weeks in off-season
› Eighty-eight percent turf coverage
› Eight percent maximum weed infestation
› Four percent bare area will be acceptable after play begins
› Remove grass clippings if visible
› Aerate once annually in low use areas
› Aerate twice annually in high use areas (additionally if needed)
› Inspect thatch layer regularly and remove as needed
› Test soil and water annually
    – Additional testing will occur if deemed necessary
› Soil moisture should be consistent
    – No wet areas
    – No dry areas
    – Firm enough for foot and mower traffic
    – Apply wetting agents to assist in uniform soil moisture
    – Hand water as needed
› Inspect weekly for insects, disease, stress and respond to outbreaks within 24 hours
› Fertilize twice yearly

Tree and Shrub Maintenance

› Prune or trim trees and shrubs as dictated by species at least once annually
› Apply fertilizer to plant species only if plant health dictates
› Remove sucker growth as needed
› Inspect regularly for insects and diseases. Respond to outbreaks within 48 hours
› Place two inches of organic mulch around each tree within a minimum 18-inch ring
› Place two inches of organic mulch around shrub beds to minimize weed growth
› Remove hazardous hanging limbs and overgrown plants immediately upon discovery
› Remove dead trees and plant material within 30 days of discovery
› Remove or treat invasive plants yearly

Storm Cleanup

> Inspect drain covers at least once monthly and immediately after flooding occurs

> Remove debris and organic materials from drain covers every other month

> Inspect and clean drains before forecasted storms begin

> Maintain water inlet height at 100 percent of design standard

> Invasive plant removal once a year or as needed

> Drain system maintenance done once a year

Irrigation Systems

> Inspect irrigation systems a minimum of once per month and as necessary

> Initiate repairs to non-functioning systems within 48 hours of discovery

> Annual back flow inspection done yearly

Litter Control

> Pick up litter and empty containers at least every other day when needed

> Remove leaves and organic debris once a week

Playground Maintenance

> Audit each playground to ensure compliance with the current version of ASTM Performance Standard F1487 and the Consumer Product Safety Commission "Handbook for Public Playground Safety"

> Complete low-frequency playground inspections at least bi-monthly or as required. All low-frequency inspections are to be completed by a Certified Playground Safety Inspector (CPSI). Complete safety-related repairs immediately and initiate other repairs within 48 hours of discovery

> Complete high-frequency inspections at least weekly

> Groom playground surfaces two times weekly

Hard Surface Maintenance

> Remove debris and broken glass immediately upon discovery

> Remove sand, dirt, and organic debris from walks, lots and hard surfaces every 30 days

> Remove trip hazards from pedestrian areas immediately upon discovery

> Paint fading or indistinct instructional and directional signs every other year

> Remove grass in the cracks monthly

Outdoor Court Maintenance

> Inspect basketball courts at least once monthly. Complete repairs within 10 days of discovery

> Repaint lines at least once every 2 years

> Replace basketball nets within 10 days when frayed, broken, or missing

> Maintain basketball goal posts, backboards, rims, fencing, and hardware to original design specifications. Complete repairs within 10 days of discovery

Trail Maintenance

> Inspect hard and soft surface trails at least once monthly

> Remove dirt, sand, and organic debris from hard surfaces at least once monthly

> Remove organic debris from soft surfaces at least once monthly

> Maintain a uniform 2-to-4-inch depth of compacted material on soft surface trails

> Use lawn equipment or chemicals to control growth twenty-four inches on either side of the trails

> Remove overhanging branches within eighty-four inches of the trail surface at least once annually

> Inspect signs, benches, site amenities at least once monthly. Complete repairs within 10 days of discovery

Site Amenity Maintenance

> Inspect benches, trash containers, picnic tables, grills, bicycle racks, drinking fountains, and other site amenities at least monthly. Complete repairs within 5 days of discovery

> Cleaning and washing annually

> Inspect daily for insects, disease, or stress and respond to outbreaks within 24 hours

Athletic Field Grounds Maintenance (baseball, soccer, softball, and rugby)

> Fields that are dedicated to soccer, baseball, softball, and rugby only

> Mowing will occur twice weekly

> Mowing heights
> - 2 ½ inches during cool season (daytime highs consistently below 75 degrees)
> - Three inches during warm season (daytime highs consistently above 75 degrees)

> Edging of all field perimeters will occur once monthly

> Eighty percent turf coverage at the start of every playing season

> Sixty-five percent turf coverage after play begins

> Twenty percent weed infestation

> Five percent maximum bare areas at the start of every playing season

> Fifteen percent maximum bare and weak areas will be acceptable after play begins

> Remove grass clippings if visible

> Aerate once annually

> Inspect thatch layer regularly and remove as needed

> Test soil and water annually
> - Additional testing will occur if deemed necessary
> - Soil moisture should be consistent

> No wet areas

> No dry areas

> Firm enough for foot and mower traffic

> Inspect weekly for insects, disease, or stress and respond to outbreaks within 24 hours

Fence and Gate Maintenance

› Inspect fences, gates and bollards at least once annually. Complete safety-related repairs immediately, and complete other repairs within 5 days of discovery

› Clean debris annually

Sign Maintenance

› Inspect sign lettering, surfaces, and posts at least once every 3 months

› Repair or replace signs to maintain design and safety standards within 5 days of discovery

› Clean signs once a year

Pest Control

› In accordance with the Division's Integrated Pest Management Program (IPM), inspect problem areas monthly and remedy immediately upon discovery

Vandalism and Graffiti Removal

› Initiate repairs immediately upon discovery. Document and photograph damage as necessary

Picnic Shelters

› Reserved units should be cleaned and litter removed prior to, and after each reservation

› Minor repairs are made immediately upon discovery

› Non-reserved units are cleaned bi-weekly, or as necessary

Lighting Security Areas

› Inspect quarterly

› Repair fixtures or replace bulbs completed within 72 hours of discovery

Restrooms

› Restrooms cleaned daily unless contracted

› Restrooms inspected every three hours

› Restrooms locked and unlocked daily

› Replace waterless urinal cartridges monthly

› Leaks dealt with immediately and repaired within 24 hours of discovery

8 | COMMUNITY ENGAGEMENT

IN THIS CHAPTER
Engagement Plan + Process
Community Input Sessions
Guiding Principles Development

Community engagement and input is an essential part of any planning process. The most effective plans are firmly rooted in the realities and visions of the communities that created them. This plan uses a combination of input from Apex residents, the Parks & Recreation Advisory Commission, Town Council, and the PRCR Department staff to inform the community engagement portion of the information-gathering process.

ENGAGEMENT PLAN + PROCESS

The PRCR Department and the project team designed the robust public engagement plan to maximize the input. The process was intended to be equitable and inclusive, offering a variety of feedback opportunities and methods for all community members to have a comfortable platform for expressing their input.

Figure 8.1 - *Peakfest 2021*

› Asset Mapping Sessions
  - September 27, 2021 – Staff
  - September 28, 2021 – Staff
  - October 12, 2021 – Town Council
› Public Input Meeting #1 – October 7, 2021
› Public Opinion Survey
  - October 7-24, 2021
› Scientific Survey
  - Winter 2021
› Special Event Attendance #1 – Peak Fest, September 11, 2021
› Focus Group Meetings
  - Non-Athletics Group, January 31, 2022
  - Seniors and Disabled Populations, January 31, 2022
  - Cultural Arts and Special Events, February 1, 2022
  - Athletic Programs, February 1, 2022
› Special Event Attendance #2 – Peak Fest, May 7, 2021
› Visioning Sessions
  - PRCR Advisory Commission, April 27, 2022
  - Staff, May 11, 2022
  - Town Council, May 17, 2022
  - Public Input Meeting #2 – June 22, 2022
› West Street Park, April 3, 2022
› Recommendations + Implementation Plan Work Sessions
  - PRCR Advisory Commission, November 30, 2022
  - Town Council, January 17, 2023

Figure 8.2 – Public Engagement Plan Summary

Though each meeting with community members and department staff had its own purpose and outcomes, the meetings towards the beginning of the planning process had a broad approach with the Department and project team intending to inform attendees about the planning process and solicit input regarding community values, customer satisfaction and the recreational needs and wants of the community. Meetings later in the process took a more focused approach, seeking feedback on proposed recommendations. Input from all meetings drove the creation of the Department's vision framework, which is the foundation for this plan's recommendations and implementation plan.

The community input process included a statistically valid survey which polled a randomly selected sample of the Town's population. Scientific survey is an approved market research tool that provides an opportunity to reach individuals who would not typically attend a meeting or otherwise participate in a public engagement process. The survey also balances responses from special interest groups. In addition to scientific survey, the Town administered a web-based public input survey that was open to all residents through publicinput.com website. The details of the community engagement meetings are described below, including the purpose, input strategy, and outcomes summary.

Asset Mapping

Asset mapping is an information gathering technique that addresses strengths, opportunities, and challenges from an asset-based perspective. Assets are defined as anything that provides tangible or intangible value to the community. Examples include traditional concepts of assets, such as vehicles and buildings and non-traditional concepts of assets, such as relationships, community support, quality staff members and more.

Purpose

To receive detailed input from PRCR Department Staff and Town Council on how the Town's parks, recreation programs, cultural resources and greenways make the community better and stand out among peer communities, how to strengthen park programs and facilities and identify what could stand in the way of efforts to improve the system.

Method

Asset mapping work sessions included two staff meetings and one Town Council meeting. The meetings included a short description of the comprehensive planning process, followed by an asset mapping exercise intended to generate feedback on the Department's strengths and successes and identify potential challenges and areas for growth. The project team engaged with staff in a virtual forum and facilitated asset mapping using the online engagement tool ConceptBoard. After a brief presentation about the benefits of the comprehensive parks and recreation master plan, elements included within the plan and the roles the parks and recreation department staff and Council play in developing the plan, staff were presented with a series of four questions. The group was encouraged to respond to the questions by placing virtual sticky notes over the four virtual whiteboards or responding to the questions in the meeting chat.

The asset mapping questions include the following:

› What about parks and recreation makes your community better?
› What is your parks and recreation Department known for?
› What would strengthen the Department's positive impact on the community?
› What are the most significant threats to the Departments assets and reputation?

Staff Asset Mapping Summary

› Apex PRCR Department staff recognize the role recreation programs, activities, events, and festivals play in creating community bonds and a sense of togetherness.
› Apex's parks, recreation and greenways system is recognized for the sense of community pride and togetherness conveyed through the variety of popular special events and festivals supported by the Department.
› First-rate customer service is a critical attribute of the Department and staff believes they do an outstanding job responding to residents' recreational needs and maintenance requests.
› The staff is in favor of adopting environmentally sustainable operations and committing to extending resources to environmental/outdoor education facilities and programs.
› There was a shared sense of concern among staff about the demand for parks, programs and greenways outpacing the department's capacity to provide quality recreation amenities and programs. Staff presume the Department would be empowered to better support the Town's recreational needs by investing in the human capital needed to expand park operations and recreation programs.
› Providing 'something for everyone' by way of recreational programs and services creates a sense of pride among staff in the work they do to serve the community.
› The Town of Apex is home to a remarkable greenway system with purposefully designed and planned connections.

Town Council Asset Mapping Summary

› Apex Town Council believes that Parks, Recreation, Cultural Resources and Greenways create community connections, promote unity, and establish sense of place.
› Environmental stewardship is a value upheld by Town Council. Members agree that PRCR Department excels at strategically acquiring and providing natural, open spaces for residents to connect with the outdoors, appreciate nature, and achieve positive health outcomes. They also were in agreement over the need for further investment in passive parks to mutually serve as amenities and environmental resilience assets.

› Members concur that the dedicated Parks, Recreation and Cultural Resources Staff do an outstanding job serving the needs of residents by providing high-quality and well-planned programs and events.
› Town Council perceives the primary challenge to the assets identified to be keeping up with the pace of growth.
› Council expressed the desire to push Apex above and beyond the national standard by proposing projects and ideas that are unique and ahead of future trends, thus ensuring continued success of the department.
› An idea unique to this group; Apex Town Council members also noted the importance of identifying public/private partnership opportunities, as well as ascertaining funding opportunities though the planning process.

Asset Mapping Common Themes

The asset mapping sessions with the PRCR Department staff and Town Council revealed several aligned thoughts and sentiments. Both staff and Council believe that parks can create a shared sense of place and create connections throughout the community. Both groups also recognize the need to examine the Department's budget and revenue to make informed decisions relating to funding and staffing needs. Town Council and staff also support the idea that the Town's parks and greenways provide access to healthy outdoor spaces and experiences. The chart below shows the common themes revealed in the asset mapping sessions.

TOWN COUNCIL ASSET MAPPING	STAFF ASSET MAPPING MEETING #1	STAFF ASSEST MAPPING MEETING #2
› Community Connection	› Quality	› Sense of Place
› Growth	› Variety	› Greenways and Transportation
› Fiscal Responsibility	› Community Connection	› Variety
› Outdoor Experience	› Resources	› Quality
› Health + Wellness	› Human Resources	› Outdoor Experiences
› Quality	› Inclusion	› Human Resources
› Inclusion	› Communication	› Organization
› Experience	› Experience	› Growth
› Caring	› Health + Wellness	› Sustainability
› Human Resources	› Caring	› Structure
	› Outdoor Experiences	

What is your Parks, Recreation, Cultural Resources, Greenways, and Open Space System known for?

Variety of Parks + Programs

Connection to the community

1st Class Athletic Facilities

Outstanding + Unique Amenities/Greenways

Natural Open Spaces to Connect with Nature

Figure 8.3 - *Table and Quotes from Asset Mapping Sessions*

VIRTUAL OPEN HOUSE #1

October 7th, 2021

Purpose

To seek input from the public regarding recreational facility, greenways and trails and program needs and explain the planning process.
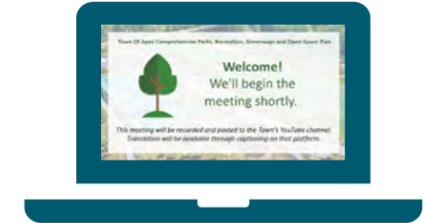
Method

The project team hosted a two-hour public virtual open house via Zoom, an online meeting platform. Open house participants were given a brief presentation about the Town's past planning efforts, the comprehensive planning process, components/contents of the plan and a snapshot of Apex's current recreation inventory. Attendees took part in several polling questions and had the opportunity to ask questions and express opinions using Zoom's question and answer widget. A total of 56 individuals attended/participated in the meeting.

Participants were posed three open ended questions designed to capture their sentiment regarding the positive effect parks, recreation, greenways, cultural resources and open space have on their lives. Responses were captured as a word cloud as a means of creating a visual representation of the text. The more often respondents mention a specific word, for example a park facility (greenways), the bigger and bolder the word appears, pointing to its importance.

Summary

› Participants in the virtual open house conveyed their sense of pride in the Department's ability to foster a sense of community, to connect people and to provide access to nature.
› Greenways, tennis, playgrounds, and greenspace emerged as the tangible recreational facilities in which participants feel the greatest sense of pride.
› Similarly, participants expressed that greenways, nature, tennis, and walking are the Town-provided recreational resources they enjoy most.
› Participants noted that during the peak of the pandemic, access to parks and greenways helped them cope by getting exercise, walking, playing tennis and getting out of the house and into nature for fresh air.

Figure 8.4 - *Poll Answers from Virtual Open House*

What do you enjoy most about the parks, recreation, greenways and cultural resources provided by the Town of Apex?

Figure 8.5 - *Poll Answers from Virtual Open House*

Greenways
› Virtual open house participants were vocal about greenways in Apex. The conversation focused on the desire for and potential strategies to increase connectivity throughout the Town by closing greenway gaps and expanding the infrastructure.
› Some of the concerns mentioned by participants included traffic conflict and safe crossings, especially along Highway 55.
› Participants also inquired about current project updates including Beaver Creek Greenway and future projects that will include connections to the American Tobacco Trail and to the Town's parks.

Facilities
› Open House participants were asked how they currently interact with recreational facilities in Apex, how they might see themselves doing so in the future, and which facilities they would like to see added.
› The conversation highlighted the demand for facilities to support the recreational activities in which meeting attendees currently participate. Several participants pointed to a need for pickleball courts, tennis, BMX bike facilities, basketball courts, mountain biking, and community gardens.

Operations/Policies
› Population growth for any jurisdiction results in housing and commercial development and with it, comes the need to ensure equitable access to recreation. Apex residents present at the virtual meeting conveyed their desire for the PRCR Department to continue to identify recreational needs around Apex's older neighborhoods.
› As the Town looks to future geographic expansion, PRCR Department staff confirmed two parks property acquisitions in the western part of Apex.
› Participants acknowledged that the growing recreation system will need resources to ensure services and facilities are provided at a high level of quality.

PUBLIC OPINION SURVEY

Purpose: To hear from residents outside of those who has attended meetings or were randomly selected to participate in the statistically valid survey.

Method: The project team used the Town's virtual public engagement platform publicinput.com to receive feedback on the following elements of comprehensive plan. The same questions were asked during the first special event attendance at PeakFest.

› Community Values input focused on identifying which values are important to the community including Health + Wellness, People + Community, Environment + Nature, Culture + Arts, Education + Learning, Equity + Inclusion, Economic Vitality and Connectivity + Growth.
› Amenities and Programming input focused on the types of recreational amenities and programs residents would like to see added or enhanced in Apex.
› Greenways and Trails input focused on how people would like to use greenways and trails and what types of experiences they would like to have on those amenities.
› Criteria for Prioritization input focused on the public's perception of the most important factors the PRCR Department should take into consideration when prioritizing projects. Residents were asked to rank their top three priorities from the following list: serving stated community needs, exploring new trends and ideas, ensuring affordability to users, maximizing positive economic impact on the community, ensuring accessibility for all users regardless of ability, creating community connections, promoting health and wellness programming, promoting environmental sustainability, promoting diversity, equity and inclusion, physical connectivity throughout Town, or attracting visitors to the area.

Summary

Topmost community values include:

› Environment + Nature
› Health + Wellness
› People + Community

Most desired parks and recreation amenity needs

› Greenways and Trails with Trailheads – 56%
› Water Sports Access (Canoe, Kayak, Paddleboard, Sailing)
› Environmental Conservation, Restoration and Enhancement – 31%

Most desired program and activity needs

› Outdoor Concerts and Movies – 31%
› Fitness and Wellness Programs – 21%
› Aquatics Programs (Swim Lessons, Fitness) – 19%
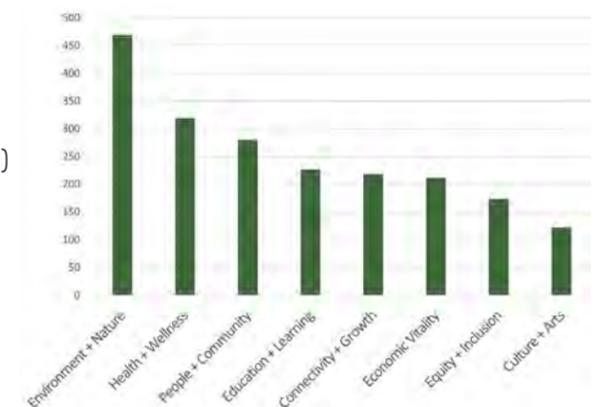
Figure 8.6 - *Community Values*
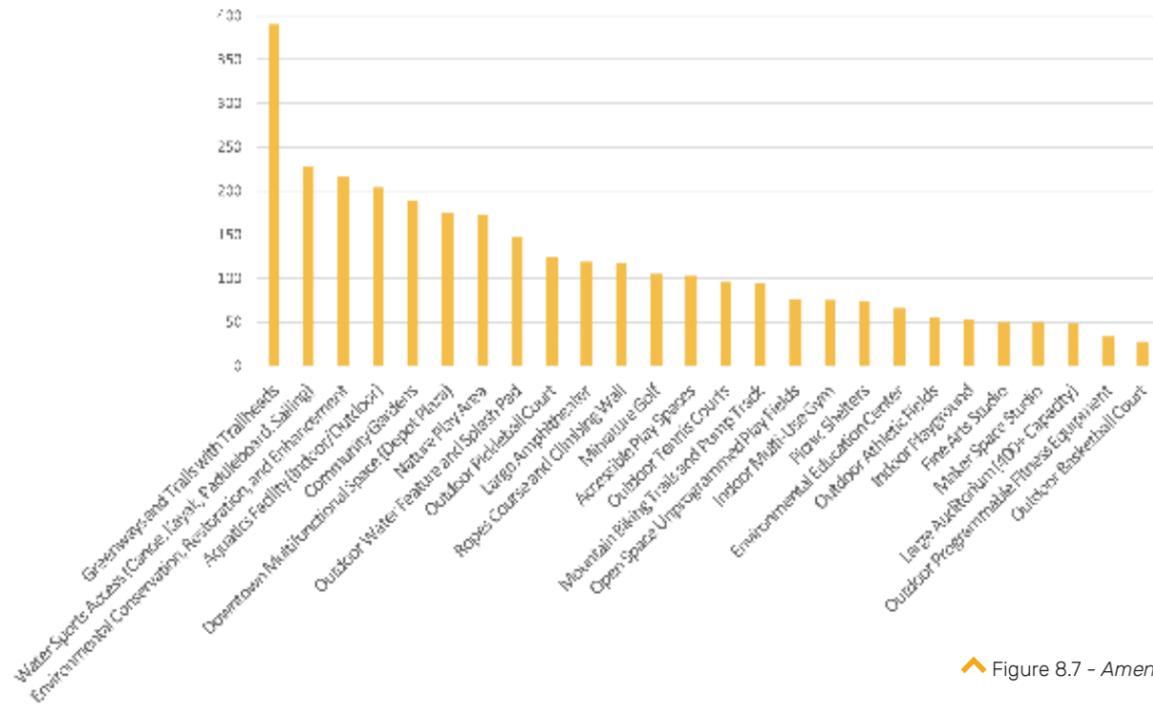
Figure 8.7 – Amenity Needs
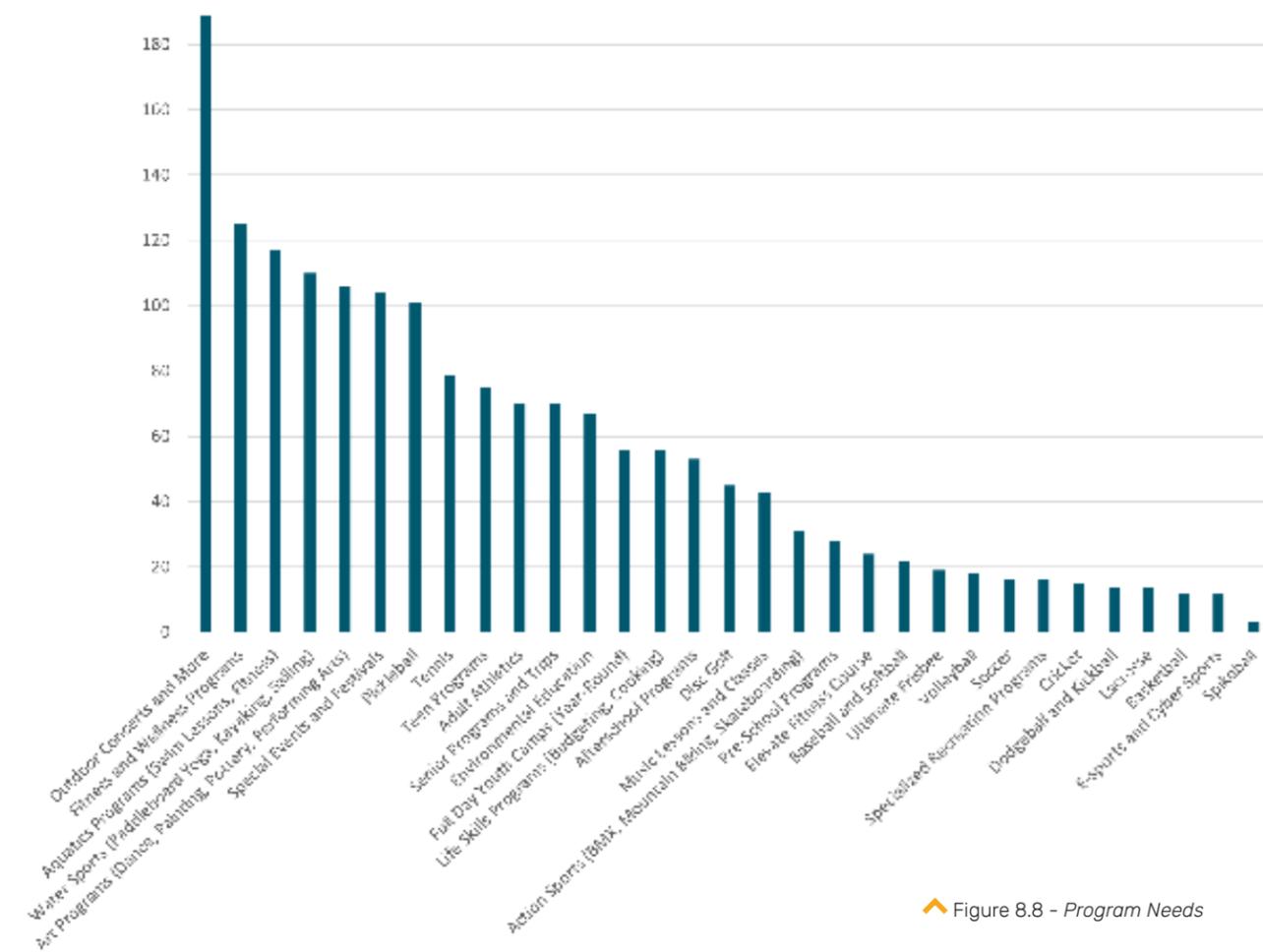
Figure 8.8 – Program Needs

Most Desired Youth Program Needs

› Opportunities to Engage within the Community
› Tennis Classes
› Non-traditional Sports

Most Desired Adult Program Needs

› Indoor & Outdoor Fitness
› Tennis Programs
› Pickleball Programs

Most Desired Senior Program Needs

› Opportunities for Exercise
› Opportunities to Socialize
› Trips

Most Desired Specialized Recreation Program Needs

› Tennis
› Gardening
› Camps

Biggest Concern for Growing Recreation in Apex

› Overdevelopment as a Barrier Expanding Parks
› Conserving Natural Areas
› Connecting Greenways

Teen Program Needs

Youth Program Needs

Senior Program Needs
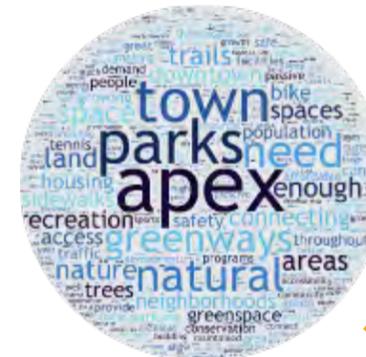
Biggest Concerns for Growing Recreation

Specialized Recreation Program Needs

Additional Comments/Aspirational Ideas

Although most open-ended remarks centered around the themes observed across all survey responses, it is important to capture the unique ideas that had not been previously mentioned. Some of these ideas are mentioned below:

›   Consider lighted trails at Lake Pine during the holidays
›   Consider more flower gardens in the parks.
›   Expand cultural resources by working with Wake County to get a library west of Interstate 540.
›   Consider blueways/paddle trails, taking advantage of local creeks and neighboring water bodies.
›   Create a lake on par with Raleigh's Lake Johnson, or Cary's Bond Park.
›   Expand water sport and ecology programs.
›   Consider water features when developing new and repurposing existing parks.
›   Continue to encourage and support Public Art. Include funding for art by professional artists in future designs for parks and greenways.
›   Accommodate outdoor spaces for all seasons.
›   More cultural events to show how diverse Apex really is.

›   Use Town parks or Town Hall courtyard for event rentals like weddings or parties.
›   Develop Depot Plaza as a park space.
›   Take advantage of the senior center campus by:
    –   Offering nature walks in spring and fall around pond and by the old house where there is a nest box and old plantings.
    –   Taking advantage of the area crossing the railroad tracks into downtown Apex for history walks.
›   Focus on smaller scale community facilities /opportunities rather than larger regional facilities that attract big organizations and out of town users.

Common Themes

›   Preserving and engaging with nature rose as the most important community value. Open ended comments reinforcing this finding refer to respondents' desire for dedicated natural areas, open greenspace, passive parks, and more nature programs
›   Greenways and trails with trailheads emerged as the most desired amenity need. The majority of respondents indicated their desire to use greenways for walking, to improve health and wellness, followed closely by connecting with nature. The idea of "bikeways" was mentioned directly and implicitly among several open-ended comments. A significant number of remarks referred to a need for bicycle lanes that are not shared with cars or pedestrians.
›   Responses to program needs varied widely with the top choice for outdoor recreation.

> *"Make sure that Apex is walkable as the Town grows and connect greenways and sidewalks."*
> *Quote from Online Questionnaire*

SCIENTIFIC SURVEY

Purpose: To solicit feedback on the recreational needs and wants of the community. Responses are reflective of the Town's demographics.

Number of responses: 513 households, exceeding the goal of 400 residents.

Method: The project team administered a scientific survey in the Winter of 2021. A survey packet was mailed to randomly selected sample households within Apex town limits. Residents were given the option to return the survey response by mail or complete it online on ApexParksSurvey.org. A total of 513 responses were returned with a precision of at least +/- 4.3% and the 95 % level of confidence. A more detailed description of methodology for ensuring statistically valid results is contained in Appendices.

Summary

Priority investment rating – The priority investment rating is an objective tool to evaluate the priority that should be placed on investments in parks and recreation facilities, amenities and programs, especially as resources become available. The priority investment rating combines measures of:

1.   The importance residents place on certain facilities, amenities and programs and
2.   How many residents have unmet needs for that facility, amenity or program.

High priority facilities

›   Greenway and trails with trailheads (PIR = 162)
›   Aquatics facility (PIR = 147)
›   Water sports access (PIR = 136)
›   Miniature golf (PIR = 102)
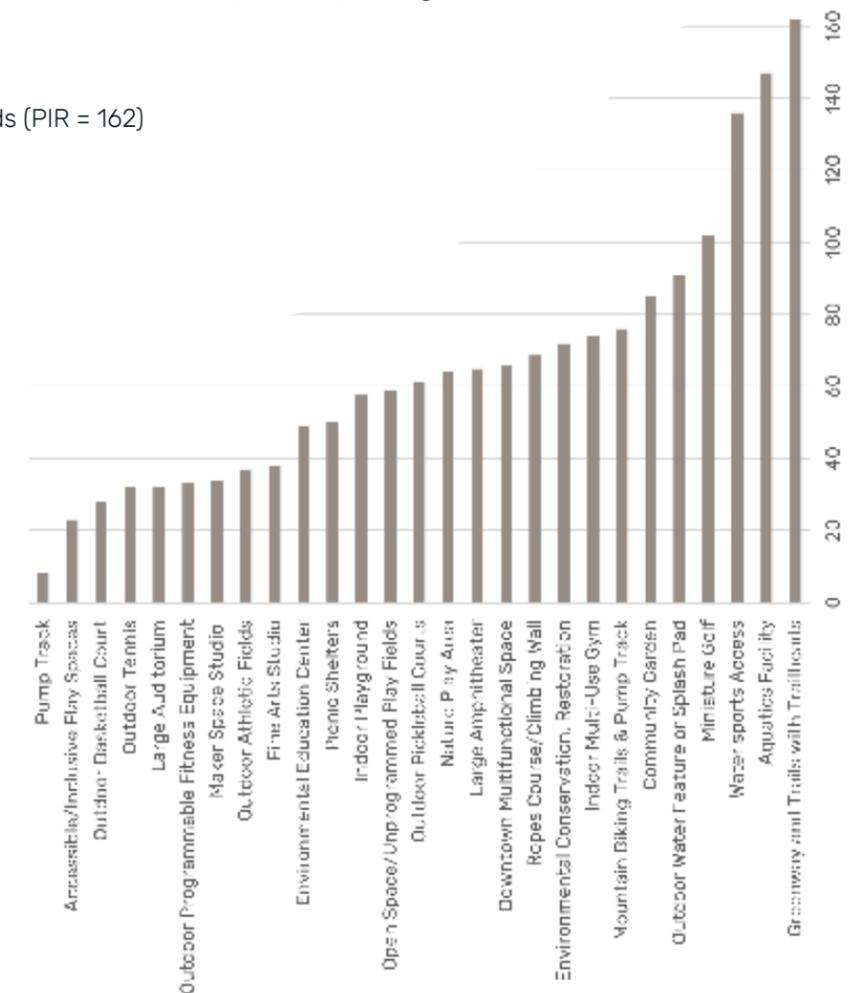
Figure 8.9 - *Top Priorities for Investment* ❯

High priority programs

> Outdoor movies and concerts (PIR = 200)
> Aquatics programs (PIR = 177)
> Fitness and wellness programs (PIR = 166)
> Art programs (PIR = 148)
> Water sports (PIR = 146)
> Special events & festivals (PIR = 141)

Figure 8.10 - Recreation Program Importance
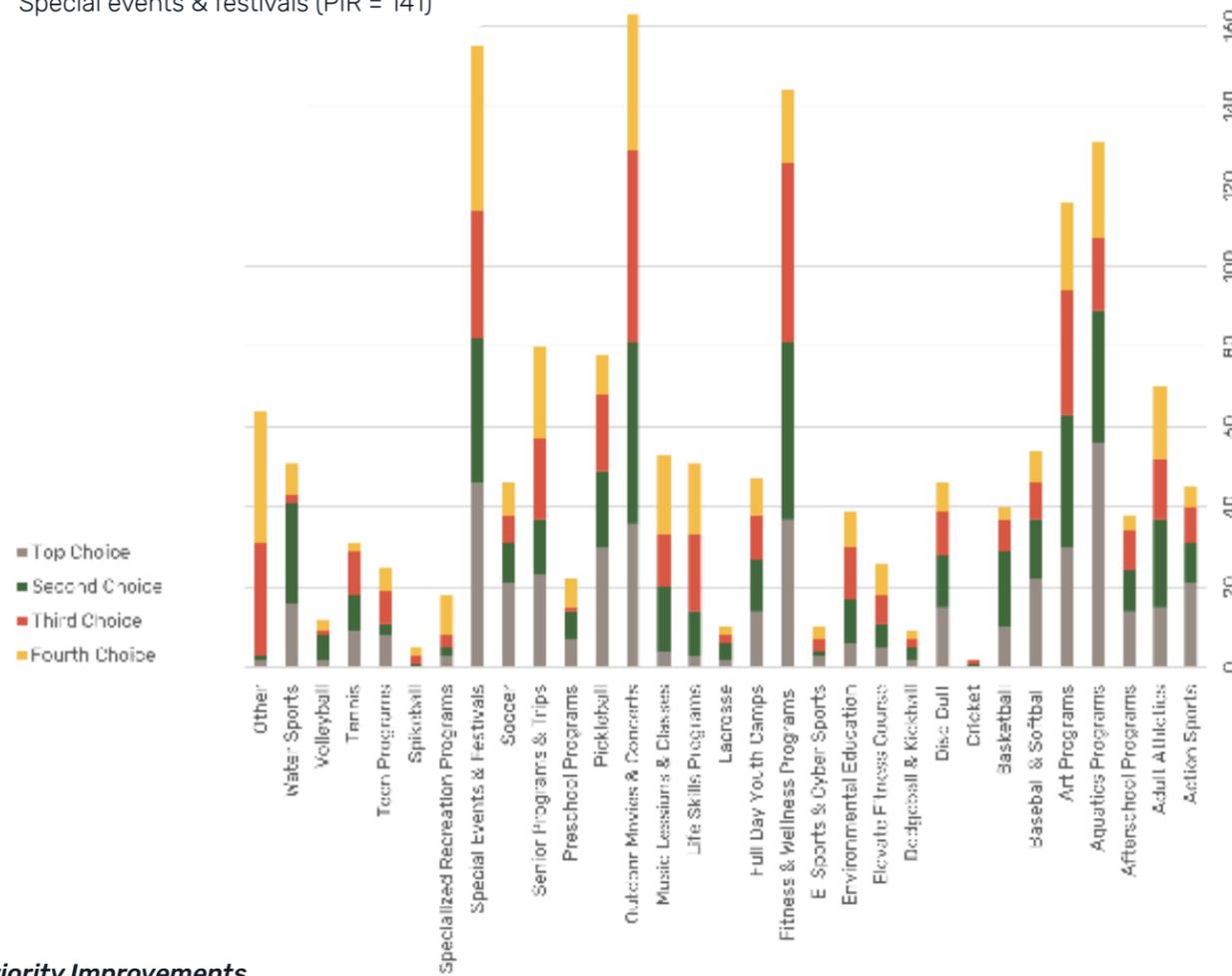
Priority Improvements

The highest levels of support for potential improvements to parks and the recreation system, based on the sum of "very supportive" and "somewhat supportive" were:

> Improving/upkeeping existing facilities (92%),
> Develop greenway trails connecting to existing trails (91%),
> Acquire undeveloped land for future park locations (80%),
> Implementing sustainability measures to minimize environmental impact of parks and recreation facilities (80%),
> Increase parkland through public/private partnerships (79%).

Miscellaneous Questions Summary

> **Program participation ratings:** Approximately 39 percent of households surveyed indicated they had participated in a recreation, athletic or youth/teen program the Department offered during the past 12 months. Ninety-seven gave an "Excellent" or "good" rating when asked to rate the overall quality of the programs they participated in.

> **Organizations used for parks and recreation facilities:** The organizations that responding households use most for recreation parks and facilities were; Town of Apex (58%), State Parks (56%), adjacent municipality (51%) and County parks (41%). Twenty-five percent (25%) of respondents use the Town of Apex most for their household's recreation needs.

> **Barriers to park, facility, and program usage:** Respondents were given a list of fourteen (14) various reasons that prevent them or members of their household from using Town parks/facilities. The top four reasons were: Lack of information/don't know what is offered (42%), not enough time/too busy (29%), overcrowding (24%) and inconvenient hours of operation (17%).

> **Community perceptions of the Department:** The highest levels of agreement with various statements regarding the Town Parks and Recreation, based on the sum of "strongly agree" and "agree" responses among residents who had an opinion, were:

  – Public parks add to quality of life in the community (97%),
  – Recreation and parks are an essential service to the town (95%) and
  – I feel safe when visiting parks in the town of apex (89%).

> **Methods of learning:** Responding households were asked to indicate all the ways they learn currently about Town parks, facilities, and special events.

  – Town website (63%)
  – Word of mouth (56%)
  – Banners in public places (48%)
  – Social media (44%)

> The sources of information that respondents most prefer to use to learn about Town parks, facilities and special events, based on the sum of respondents' top choices, were:

  – Town website (37%),
  – Social media (34%) and
  – Direct email (33%).

> **Funding support:** The potential improvements that respondents indicated they would be most willing to support with tax dollars, based on the sum of respondents' top three choices, were:

  – Developing greenway trails to connect Town's existing greenway trail segments (20%),
  – Acquiring undeveloped land for future parkland locations (18%),
  – Constructing an indoor/outdoor aquatics facility (17%).
  – Eighty-three percent (83%) of respondents are "very supportive" (52%) or "supportive" (31%) of the funding of parks and recreation improvements/expansions to be funded with a future bond financed within the existing property tax rate structure.

SPECIAL EVENT ENGAGEMENT #1 (PEAKFEST 2021)

Purpose: To solicit input regarding community values, recreational facility and program needs, greenways and trails uses and experiences and various criteria to be taken into consideration when prioritizing specific plan components.

Method: The project team hosted a booth at the Town of Apex's annual PeakFest, a street festival that draws thousands of people to downtown Apex. The festival is the largest public event in Apex. It has been celebrated through music, food, arts and craft displays and activities for all ages for over 40 years. A series of 12 engagement boards were displayed on easels, whereby festival-goers could conveniently provide their input using sticky notes and sticker dots. An introductory board described the comprehensive planning process, including an explanation of its individual steps and the timeline the process will follow. The other engagement boards focused on community values, park facilities, recreational programming, trails and greenways and criteria for prioritization

Figure 8.12 - *Peakfest 2021*

Figure 8.13 - *Peakfest 2021*

Figure 8.14 - *Peakfest 2021*

› **Community Values** input focused on identifying which park focused values are important to the community including: Health + Wellness, People + Community, Environment + Nature, Culture + Arts, Education + Learning, Equity + Inclusion, Economic Vitality and Connectivity + Growth.

› **Amenities and Programming** input focused on the types of recreational amenities and programs residents would like to see added or enhanced in Apex.

› **Greenways and Trails** input focused on how people would like to use greenways and trails and what types of experiences they would like to have on those amenities. A mapping exercise allowed residents to identify destinations they want to access and identify or prioritize greenway and trail corridors. Additionally, participants provided feedback on two town-wide greenways maps. The first map allowed contributors to indicate which corridor, out of ten town-wide planned corridors, should be designated as the highest priority. The second map displayed the Town's current greenway system and asked participants to mark destinations on the map that they felt should be connected via greenway trails.

› **Prioritization Criteria** input focused on the public's perception of the most important factors the Apex PRCR Department should take into consideration when prioritizing projects. Participants were asked to rank their top three priorities from the following list: serving stated community needs, exploring new trends and ideas, ensuring affordability to users, maximizing positive economic impact on the community, ensuring accessibility for all users regardless of ability, creating community connections, promoting health and wellness programming, promoting environmental sustainability, promoting diversity, equity and inclusion, physical connectivity throughout Town, or attracting visitors to the area.

Community Values

Community values reflect core beliefs or principles that a community holds as a collective and wishes to maintain into the future. For this exercise, participants were asked to identify the community values that were most important to them. The resulting scores show the commonly held community values. Public engagement results at Peakfest revealed that Apex community values the environment and nature. Open-ended comments encouraging the PRCR Department to preserve trees and open space further pointed to residents' desire to position the environment and nature at the center of the conversation about enhancing parks and recreation in the Town of Apex.

Community Values identified in the highest regard are:

› Environment + Nature (94)
› Connectivity + Growth (64)
› People + Community (62)
› Health + Wellness (60)

Amenities

Participants ranked the top three amenities they would like to see the Apex PRCR Department offer or expand in the future. The project team compiled the list of possible amenities from department recommendations, references to previous community input and items in line with 2022 national trends. Greenways and trails and ropes course emerged as the most desired recreational facilities. Participants also indicated a strong desire for paved walking loops, a farmers market pavilion, and a miniature golf course.

Top Five Facilities in Demand (Number of selections)

› Greenways + Trails (102)
› Rope Course (87)
› Paved Walking Loops (83)
› Farmers Market Pavilion (80)
› Miniature Golf (78)

Program Needs

Participants ranked the top programs they would like to see Apex PRCR offer or expand. The programs listed, generated by the project team and Department staff, were based on current program offerings, trends in recreation and cultural programming and programs that were identified through community input. Participants indicated that there is a need to add to and expand outdoor recreation programs and offer outdoor performances. Participants also expressed the need for more performing arts as well as fitness and wellness programs.

Top Five Programs in Demand (Number of selections)

› Outdoor Programs (paddleboard, CrossFit, Elevate Course, running, training) (118)
› Outdoor Performances (82)
› Performing Arts Programs (45)
› Fitness + Wellness Programs (45)
› Athletics (35)

Greenways and Trails

Participants were asked to provide their top choices regarding how they envision themselves using greenways and trails in the Town of Apex. They were also asked what three types of experiences they would most like to have on greenways and trails. Overall, participants were most inclined to want to walk the greenways, followed by hiking and biking. In terms of greenway experiences, participants expressed their desire to engage with nature, to have the capability of connecting to two or more destinations via greenway, to use greenways and trails to walk pets and to improve their overall health and wellness.

Greenway + Trail Usage in order of highest preference

› Walk (127)
› Hike (120)
› Bike (110)

Greenways + Trails Experience in order of highest preference

› Connect with Nature (96)
› Connect to Parks, Downtown and/or other Destinations (75)
› Walk a Pet (60)
› Improve Health + Wellness (59)

Prioritization Criteria

After indicating their most desired recreation facilities, programs and experiences participants were asked to indicate the top three ways they believe the Department should balance the many priorities revealed in the planning process.

Prioritization Criteria in order of highest preference

› Promoting Environmental Sustainability (58)
› Physical Connectivity through Town (45)
› Diversity, Equity, and Inclusion (34)
› Health and Wellness Programming (28)
› Maximizing Positive Economic Impact on the Community (26)

Figure 8.15 – Apex Community Park Greenway Trail

FOCUS GROUPS

Purpose: To facilitate more in-depth conversations on specific topics related to PRCR Department

Method: The project team identified the following focus groups:

› Cultural Arts and Events
› Seniors and Special Needs Populations
› Non-Athletic Programs
› Athletic Programs
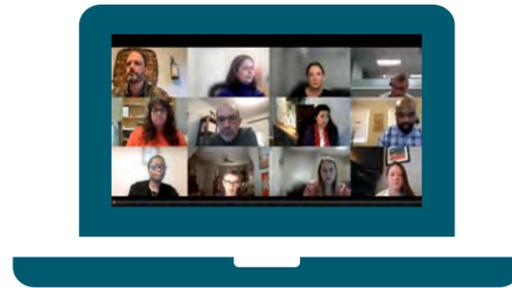
Because of the rise in Omicron cases, the focus groups meetings were conducted virtually via Zoom platform. Each focus group was asked a consistent set of questions to get their feedback on programs, parks, facilities and greenways usage and overall needs for the Town of Apex. In addition, the discussion was focused on specific concerns and barriers of usage for parks, facilities, and program participation.

Focus Group Questions:

› **Q1-** What about parks, recreation, cultural resources and greenways makes your community better?
› **Q2-** What is your parks, recreation, cultural resources and greenways system known for?
› **Q3-** What would strengthen the Department's positive impact on Town of Apex?
› **Q4-** What are some of the biggest threats or challenges to the assets you have identified?

Figure 8.16 - *Cultural Arts Programs*

Summary

Cultural Arts and Special Events

› Overall, the group felt the town's large events were a major contributor to the community's pride.

› Needed improvements included marketing and outreach efforts to increase the diversity and creating bilingual translation of marketing and programming materials that reflects the interests of diverse populations.

› The group discussed opportunities to activate the Halle Cultural Arts Center by making the facility more welcoming to the public through marketing and programming, rethinking use of the space to maximize its potential, and considering the addition of alcohol licensing to expand and enhance facility rentals and offerings.

› The addition of art displays and connectivity of greenways to Town facilities throughout Town will continue enhancing health, arts, and cultural resources.

Seniors and Special Needs Populations

› Overall, this group is satisfied with the benefits of the parks and recreation programming, noting that programs meet the physical, mental, social, and financial needs of seniors and individuals with disabilities.

› Senior and specialized recreation programs are affordable and provide opportunities to meet and engage with others.

› Senior participants felt programs attracted a diverse population, yet transportation for seniors remains a challenge.

› Participants were interested in bringing all-inclusive park features for children and bring people together to break down misconceptions and barriers to participation, to promote inclusion and encourage diversity of user groups.

› Participants expressed concerns with managing services to maintain the current level of services given growing community needs, park maintenance needs for older parks, preservation of green space, affordability of programs changing with increased demands for service and having enough trained staff and resources to meet growing department needs, so no one is placed at bottom of prioritization listings.

› Marketing efforts to digitize access to introduce people to programs and parks with ease of use were mentioned as a need for these groups.

Figure 8.17 - *Spirit League*

Non-Athletic Programs

› Participants in this virtual focus group session expressed that the wide range of park amenities, well-maintained parks, athletic programs, and special events make Apex better. Noted were the needs to preserve greenspace amid the Town's growth and to connect gaps existing within the greenway system.

› The group explored opportunities to increase environmental education and gardening programming.

› The Town's growth and affordability of programs were discussed as competing concerns associated with maintaining current level of service in parks and recreation.

› Suggestions to improve marketing efforts included simplifying website navigation to easily find parks, programming, and special events information to increase and broaden outreach.

Athletic Programs

› Participants in this focus group agreed that parks are top-notched, well-maintained, and used by the general public and rental groups.

› Though the variety of youth activities and programs was noted as positive, the group felt new programs should be developed to reflect the interests of diverse populations.

› The addition of athletic fields and gymnasium space, expanding the rental reservation timeline to more than six months, and better communication between staff and coaches were identified as needs to accommodate the continued growth of programs and provide primetime use of fields and facilities by user groups.

› The lack of retail stores and hotels to accommodate overnight guests for tournaments were identified as gaps to increasing local economic impacts of sports to the community.

› Pleasant Park is seen as a game-changer and is projected to provide additional field space for use. However, the group shared that continuous growth of athletic programs would increase the need for constructing another large park and providing necessary staffing and operational support to accommodate athletics in one location.

› The group agreed that now is not the time to be complacent with one large park due to community growth, increasing needs and potential competition from nearby communities looking to construct similar athletic facilities.

▲ Figure 8.18 - Non-Athletic Senior Program

▲ Figure 8.19 - Athletic Program

SPECIAL EVENT ENGAGEMENT #2 (PEAKFEST 2022)

Purpose: To solicit input regarding recreational facility and program needs for future park properties, greenways and trails uses and experiences; and receive input on the themes that emerged through needs assessment and previous community engagement efforts

Method: The project team attended Town of Apex's popular annual PeakFest as an outreach effort to reach larger Apex population. A series of 5 engagement boards were displayed at the PRCR Department's booth whereby festival goers could provide their input. Boards included a voting exercise for the future of Kidstowne Playground at Kelly Road Park, open-ended questions on Key Themes, input for new connections or improvements to the greenway network and input on potential park amenities for Olive Farm Parkland and Wimberly Road Parkland. Over 300 participants provided feedback at the festival.

▲ Figure 8.20 - Peakfest 2022

Summary

THEME	PARTICIPANT FEEDBACK
Greenways + Connectivity › Apex residents have expressed a strong desire for expanding greenway system and connectivity to destinations including parks, natural areas and open space.	› Connected greenways are needed › Provide connectivity to Crowder Park via greenways
Nature + Environment › Apex residents value access to natural areas in parks and understand the positive health outcomes access to nature provides, focus on environmentally sustainable operations and need for environmental education programming has been mentioned.	› More nature trails › Cat park with gates › Larger dog parks with trails › Apex tree archive › Preserve now, before it is too late › More green space
Sense of Community › Apex residents indicated creating connections and developing a sense of community should be one of the most important considerations when prioritizing parks and recreation investments. While Apex is investing in new parks, there is also a need to keep up with aging facilities.	

THEME (CONTINUED)	PARTICIPANT FEEDBACK (CONTINUED)
Something for Everyone › Apex residents consider diverse parks and recreation offerings for all ages and ability levels as an asset to the community. Expanding cultural events to celebrate the diversity of demographics was indicated as future need.	› Tennis, Racquetball, Pickleball › Kids sports › Diverse preschool class offerings › Soccer fields › Art center › Ropes based play, Inclusive play, Fitness › Dog park at Jaycee Park › Allow dogs in festivals and downtown farmers market › More ways to walk/bike downtown › Connect Kelly Glen to Beaver Creek Greenway
Unique to Apex › Apex residents would like to see innovative programs and amenities that would attract out of town visitors to Apex to generate economic impact.	› Paddle board yoga › Wiffleball field › EV chargers
Operations Efficiency › Apex residents consider parks and recreation staff an asset to the community for excellent customer service. As the town continues to grow, there is need for additional staff, resources, and desire to be competitive with other recreation providers in the area.	

Community values reflect core beliefs or principles that residents wish to maintain. The needs assessment process and the feedback from Apex residents, staff and Council resulted in six key themes that formed the basis of discussion for future vision of the Apex parks system. The Key Themes board asked "what is one action the Town of Apex Parks, Recreation and Cultural Resources Department can take for each of the following themes to be a leader in parks and recreation offerings?" Each of the six themes had a space for participants to provide their ideas on a post it.

> "Positive staff interactions really help people engage with parks. Friendly (and) cheerful people add a great dimensions to the parks".
> *-Quote from Peafest 2022*

Figure 8.21 - Peakfest 2022

Planned Greenway Network

The Planned Greenway Network board included a map of the existing Town greenway system with built and planned greenways. Participants were asked where they would like to see improvements and connections in the Town of Apex. Participants could draw on the map or provide feedback on a post-it. The following feedback was received:

› Connection from Stillwater to American Tobacco Trail (ATT)
› Complete Clark Branch Greenway
› Sidewalks on Richardson Rd
› Sidewalk from Old Salem to Davis Dr
› Beaver Creek connection to the Nature Park and ATT
› Build Big Branch Greenway
› Connect Olive Chapel Park to ATT for bikes
› Connect Middleton community to Salem schools and White Oak Greenway
› Sidewalk by bridge over Beaver Creek at Richardson
› Connect Waldon Creek to a greenway
› Sidewalk under 64 to Salem Elementary
› Sidewalk from Crocketts Ridge to Kelly Road
› Apex community Park to Bond Park connection
› Pedestrian Bridge over 64 to Lake Pine Dr
› Sidewalks to Apex Friendship Elementary
› Charleston Village to Highway 55
› Charleston village to Salem Schools
› Complete Beaver Greenway West of Apex Nature Park to downtown
› Complete sidewalk and curbing on North End of Pate St (between Hunter and Cash)
› Connect Hadden Hall to Beaver Creek Greenway

Figure 8.22 - Proclaimation for July to be named Parks and Recreation Month - 2023

Future of Kidstowne Playground at Kelly Road

The Kidstowne Playground at Kelly Road park was constructed in the fall of 1999. This well loved play structure was constructed of wood in a community build and many of the components and underground supports will need to be replaced in the near future. This board included three options for replacement and asked residents "What do you see for the future of Kidstowne playground located at Kelly Road Park?" by using a dot to share their preference. Option B received the majority of the votes.

Figure 8.23 - Kids Town Feedback Board

OPTION	NUMBER OF VOTES
Option A- Replace existing playground with a similar wood size material as the current community-built one but with long lasting composite building materials.	76
Option B- Replace existing playground entirely with new equipment and new play objects and designs based on community ideas.	120
Option C- Replace existing playground with a new play equipment that features the same play objects and designs of the existing playground (castle, rocket ship, treehouse, train and depot, ship-2 slides, 3 climbing pieces, 4 areas for upper body skill development, etc.)	30

Wimberly Road Parkland

Wimberly Road is currently undeveloped parkland. It is comprised of 7 parcels totaling 49.94 acres. The site has frontage along Wimberly Road. The northern section of the site is bounded by Army Corps land, while eastern side neighbors a proposed planned residential development, called The Park at Wimberly on the proposed plans. There is a pond, perennial stream, two gas easements and floodway on the site. On the southern border, there is a proposed public safety station, pedestrian access from The Park at Wimberly subdivision and a proposed open play area.

Participants were asked to suggest potential park amenities and programming they would like to see at the Wimberly Road Parkland. The board included an aerial image of the park site with a blank space for the prompt. Engagement results are illustrated in the following chart.

Figure 8.24 - Wimberly Road Parkland

Figure 8.25 - Peakfest 2022
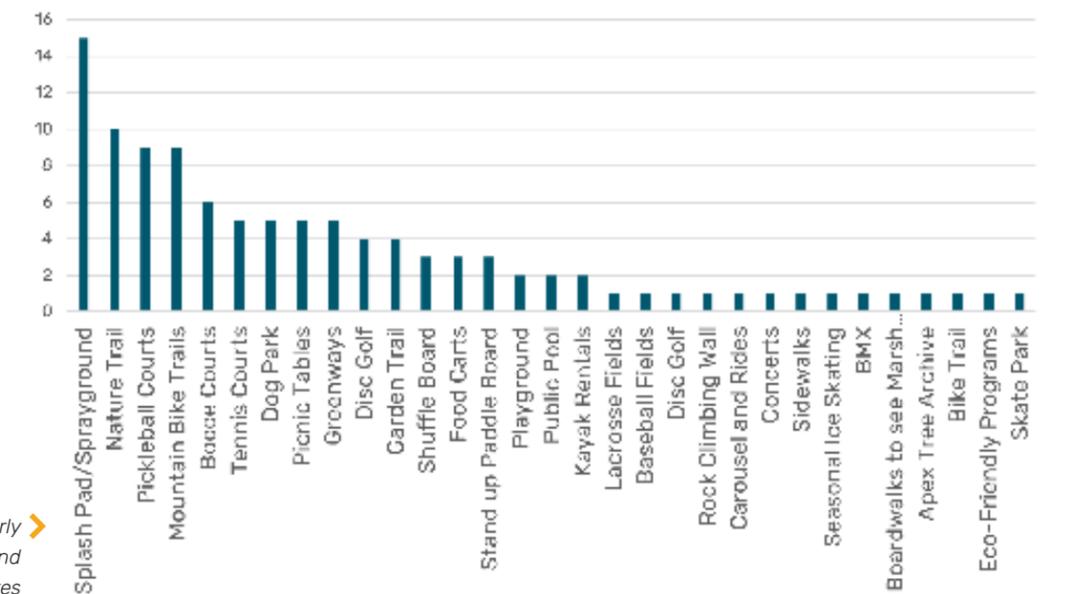
Figure 8.26 - Wimberly Road Parkland Programming Desires

Olive Farm Parkland

Olive Farm Park is currently undeveloped parkland. It is comprised of 4 parcels totaling 20.64 acres. There is frontage on Humie Olive and Olive Farm Roads. The site is primarily wooded with some cleared open area and a farm pond. The parkland includes several utility easements along the western edge and a 20' undeveloped greenway easement parallel to Humie Olive Road.

This board asked participants "please suggest potential park amenities and programming you would like to see at Olive Farm Parkland. Use the blank space to write your comments." The board included an aerial image of the park site with a blank space for the prompt. Engagement results are illustrated in the following chart.
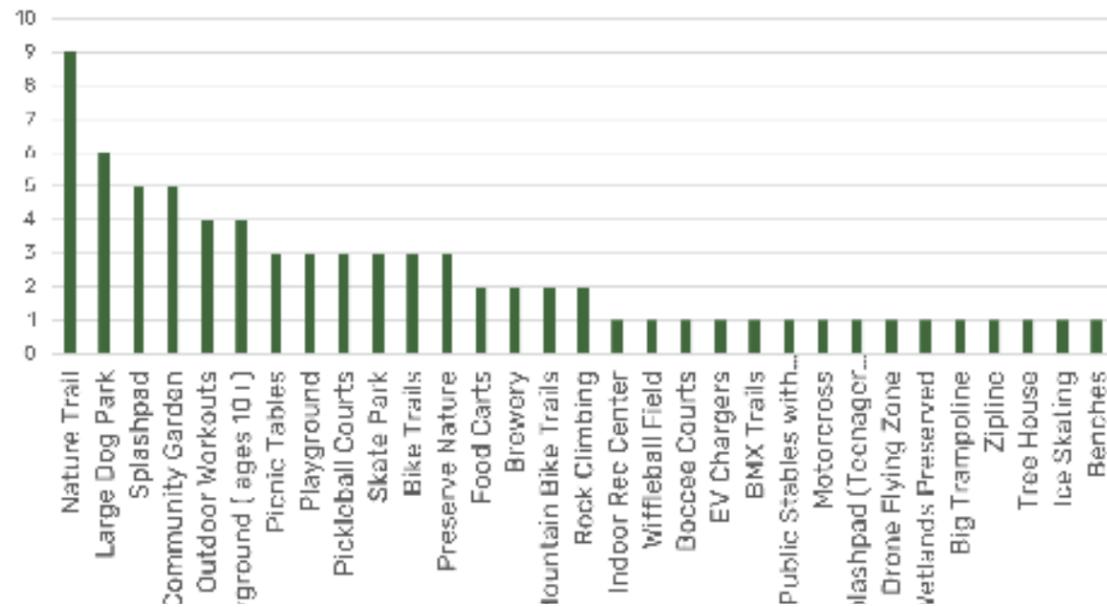
Figure 8.27 – Olive Farm Parkland Programming Desires

Common Themes

› Feedback for the six themes showed desire from residents for more greenway connections, sport courts, and preservation of nature.

› Many participants provided specific suggestions for improving and completing connections for the greenway network throughout the Town.

› There was a strong interest in the future of Kidstowne Playground at Kelly Road Park. Input provided for the future of Kidstowne Playground came from children, parents and grandparents that currently use the facility, many who participated in the original design sessions and community build events.Option B received most votes which proposes the idea to replace existing playground equipment entirely with new equipment and new play objects and designs based on community ideas.

› Participants' feedback for Wimberly Road Parkland included a range which included natural and built park features, bicycle and pedestrian amenities and various sport courts.

› Olive Farm Parkland also received a variety of feedback for future park amenities such as nature trails, dog park, gardens, splash pad and sport courts.

VISIONING SESSIONS

Purpose: To develop long-range vision for the parks and recreation system using the findings from needs assessment and the themes that emerged through community engagement process to date.

Method: The project team conducted a series of three visioning sessions with the advisory commission members, staff and Town Council. Each session included a short presentation on needs assessment and community engagement findings followed by an interactive session where participants provided feedback on the six themes that emerged from the needs assessment.

Each group of participants responded to following questions as they relate to each theme. They developed one big idea to enhance the theme and identified one action item and one challenge each to accomplish implementing the big idea.

› How do we expand greenways and connectivity throughout the Town?
› How do we foster connection to nature and environmental awareness?
› How do we develop sense of community through parks and recreation?
› How do we expand offerings for ALL residents through parks and recreation?
› How can we make parks and recreation offerings "unique to Apex"?
› How do we manage departmental operations to achieve efficiency?

EMERGING THEMES

Community input up to visioning sessions revealed the following core ideas or themes. These themes were used to guide the discussion during visioning sessions with staff, advisory commission, and council.

Greenways + Connectivity: Conversations throughout public input process were centered around the need to close greenway gaps and expanding the greenway network throughout the Town. Meetings with public, staff, advisory commission, as well as Council reflected the Town's strong desire for greenways which serve as alternative mode of transport, connect people to destinations, encourage physical activity, and provide opportunity to enjoy natural areas. Residents expressed their need for interconnected walkable and bikeable roads, methods of balancing the development of pedestrian sidewalks and multiuse paths with dedicated bike lanes.

Environment + Nature: Town of Apex residents highly value environmental conservation and preservation. This theme is encapsulated by the remarkable amount of feedback conveyed throughout the community input effort. Connecting with nature was the foremost experience residents would like to enjoy using Apex's parks and greenways system. Further, promoting environmental sustainability rose to the top as criteria for future projects prioritization. Tree canopy protection, use of alternative sources of energy, stormwater management through green infrastructure, and integrating recycling with Department operations were some of the ideas consistently mentioned.

Sense of Community: Participants indicated that their foremost point of pride for Apex's parks, recreation, open space and greenway system was the Town's efforts to connect people and the Department's ability to foster a sense of community. Celebrations, festivals, and special events are some of the ways community members connect and socialize, discover greater values and beliefs that bind the community together. Interactions through recreation programs also inspire residents to build social cohesion.

Diverse Offerings for all residents: Throughout the community engagement process, Apex residents, staff, and Council expressed the desire to expand the inclusivity efforts by providing recreation services to all residents regardless of their age, culture, or ability level. Residents realize the demographic shifts in the community demand addition of new programs that celebrate the diversity in Apex's population. Additionally, Apex residents want to ensure access to play and recreation for the special needs community in the Town.

Unique to Apex: Apex residents expressed the desire to offer "unique" recreation opportunities in the town that would draw out-of-towners. Apex has a rich history of being a railroad town and parks provide platform to share these stories with public. Additionally drawing visitors to town to enjoy parks and recreation programs generates positive economic impact.

Operations Efficiency: Apex residents consider parks and recreation staff an asset to the community. However, they also realize that with the growing town comes the need for additional staff, resources, and consistent economic investment in the parks and recreation system. It is also important to provide high quality services to remain competitive with other recreation providers in the area. Residents not only expressed the need to build trendy new parks facilities, but also to provide capital to take care of existing aging facilities.

Visioning Sessions - Summary

Advisory Commission Visioning Session

Greenways + Connectivity
› Advisory commission participants suggested greenway connectivity to Apex downtown as one of the ideas for expanding the greenway system. Highway 55 is identified as one of the major physical barriers to cross for pedestrians and bicyclists.

› Some participants suggested identifying certain greenway corridors as "commuter corridors" to connect major employer destinations with the Town and extending those to provide regional connections.

› Partnerships with other agencies such as NCDOT and neighboring jurisdictions was identified as a strategy to implement these larger projects.

› Placemaking strategies to enhance user experience included addition of small destination nodes supplemented with site furnishings, drinking water fountains, workout stations and public art.

› The majority of the participants identified funding and right-of-way acquisitions as challenges to implementing greenways and enhancing connectivity.

Nature + Environment
› Identification and protection of existing natural resources within Town of Apex was a consistent theme among participants.

› Addition of a new nature center facility to provide environmental education programs, focusing on native plant palette and naturalized landscapes for wildlife habitat and leveraging the mental and physical health benefits of green spaces in new developments were some of the ideas discussed.

› Additional ideas included use of technology and emphasis on renewable sources of energy.

› The challenges for implementing these ideas included public interest level and funding for conservation land acquisition. Participants also suggested being selective about accepting fee-in-lieu for new development projects coming to town.

Sense of Community
› Some of the common themes mentioned to enhance the sense of community in Apex included bringing more community focus to the organized athletic and non-athletic programs, adding more special events and festivals, creating neighborhood level special events organized by HOA groups, and supported by parks and recreation department and a focus on parks and recreation branding.

› The challenges identified include limited staff capacity for additional programs and events which typically are organized after hours and on weekends.

Diverse Offerings
› Participants overwhelmingly supported the idea of expanding programs for all residents and focusing on inclusivity for all ages, abilities, gender, and cultures.

› The ideas ranged from car shows, food truck rodeo, outdoor film festival, guest speaker series to facility modifications to ensure access, gender neutral restrooms and responding to changing demographics of the community. Participants suggested identifying trends across the country and regularly asking Apex community what programs they would like to participate in.

› Challenges included identifying the program gaps, funding, and developing affordable fee structure for all residents to participate.

Unique to Apex
› Advisory commission participants suggested one of the ways to make parks and facilities unique to Apex is to leverage technology.
› Virtual reality, e-sports and readily available digital resources were some of the ideas mentioned in addition to streamlining the rentals and online registration processes for greater user experience.
› "Walt Disney Approach" was mentioned for enhanced customer service. The challenges identified included additional responsibilities on existing staff, identifying gaps in the system and funding for new projects.
› Action items included addition of new staff, town branding, identifying partnerships with local universities, seeking grants funding and dedicated staff for each large park or a cluster of small parks to ensure high quality user experience throughout the system.

Operations Efficiency
› The big ideas to achieve departmentwide operations efficiency included leveraging technology to automate and track registration and rentals, standardize departmental processes and achieving CAPRA accreditation.
› Interdepartmental collaborations were suggested to achieve multiple town-wide goals on high demand projects. Additionally, the participants suggested training existing staff with modern tools and investing in user friendly digital applications to achieve operations efficiency.

Staff Visioning Session

Greenways + Connectivity
› Staff mentioned several ways to help expand the greenway system in Apex including incentivizing new developments to build greenways, prioritizing greenways to connect destinations, use of impact fees, working with the community to find routes that don't interfere with existing neighborhoods, etc.
› Some innovative ideas included developing a town-wide greenway network app to encourage greenway use, QR codes for interactive maps signage on greenway corridors and bike rental programs.
› The challenges identified included funding and staffing for growing greenway network.

Nature + Environment
› PRCR staff suggested several ideas to foster connection to nature and raise environmental awareness amongst residents, such as, building a new nature center, outdoor classroom at the Nature Park and developing new nature-based recreation programs that also include a nature adventure component.
› The staff felt that reduced pricing on programs could reflect as low-quality programs for certain section of population and suggested that raising fees will help people commit to attend classes and reduce cancellations.
› While the Town is investing in new electric equipment and tools that aid in energy conservation, they would like to see these efforts continued. Additionally, the staff suggested the administration should incorporate recycling program in town operations.

Sense of Community
› While the staff agreed that local events and festivals contribute to the sense of community amongst residents, they are also aware of the challenge of a short-staffed department. They suggested streamlining the town wide volunteerism initiative and hiring a volunteer coordinator to coordinate additional programs such as recreation on wheels, community building, adopt a park program and community service days.

› They also suggested intentional marketing outreach for local businesses to get them involved in the parks and recreation programing.

Diverse Offerings
› In order to diversify the program offerings, the staff suggested that future recreation staffing should reflect the changing demographics of the community.
› The programs should include afterschool programs for younger children, teen programs, senior programs with transportation assistance, culinary classes and instructors who can teach in multiple languages.
› Additionally, staff would like to see Apex host international festival to involve diverse groups of residents and they suggested exploring partnerships with NC State festival group and other area cultural groups.

⌃ Figure 8.28 - *Staff Visioning Session*

Unique to Apex
› Staff mentioned that Apex already has some unique features in the parks system and at Pleasant Park. These include facilities like Elevate fitness course, Splashlantis, Street Hockey rinks, and themed playgrounds
› They mentioned another unique idea to enhance the skate park was to incorporate an art wall that is easy to clean up and maintain to give space for graffiti artists to express their art.

Operations Efficiency
› Majority of the staff mentioned that communication is one of the biggest challenges for the department. The maintenance staff would like to leverage the capabilities of the current Citiworks asset management software to track work orders and to provide consistent and accurate internal and external communications.
› Recreation staff also mentioned training for skills set development. As the department is hiring new staff that have had experiences outside of the department, cross training and collaboration amongst staff was also mentioned.

Town Council Visioning Session

Greenways + Connectivity
› Town council members agreed on the idea of expanding the greenway network to connect destinations within the town and to surrounding jurisdictions.
› Easement acquisitions and funding were the biggest hurdles in expanding the network and closing gaps in the existing network. They suggested easier requirements for developers to support building greenways and being proactive in designing and planning in advance to identify right-of-way acquisition.
› Building greenways in the older part of the Town was also mentioned as challenge, along with overall funding need to build greenways.

Nature + Environment

› Council members mentioned creating more programs and natural areas to get families and youth outdoors. Educating community about native plants, reducing lawn areas by planting butterfly gardens and other native species to make Apex "environmental community".

› The challenges include generating demand for nature-based programs, need for dedicated staff, funding and limited indoor space. Council suggested making nature center a priority project.

› Additional outreach components included digital applications to identify key park features, greenways and native plants palette along greenway corridors.

Sense of Community

› Council members also agreed that local events and festivals contribute to the sense of community. They understand that these events and festivals typically occur over the weekends and it is not realistic for the department staff to facilitate them on a regular basis.

› Council members suggested smaller neighborhood scale HOA hosted events such as movie nights that are supported by the PRCR department where the department would rent equipment.

› The challenges included costs to include programs, staff capacity and maintenance.

› Members also suggested leveraging Apex's branding as part of community marketing in programs such as town scavenger hunt, ride to restaurant day, wear an Apex hat day, etc.

Diverse Offerings

› In order to diversify the program offerings, the Council members suggested partnership with the DEI Department and private developers to offer diverse programs and events.

› They also mentioned need for satellite recreation facilities, ensuring diverse representation in the Advisory Boards and other decision-making bodies and staying on top of trends to offer new programs.

Unique to Apex

› Council focused the discussion on incorporating Apex's history as a railroad town into more parks and recreation planning and branding efforts, along with creating and expanding Apex's unique facilities like Pleasant Park and Skate Park.

› Leveraging public private partnerships was also discussed.

Operations Efficiency

› Town Council is keenly aware of the department wide staff shortage and they would like to focus on identifying current staff's skillset and identify gaps that need to be filled in.

› They also would like to ensure staff retention through competitive job opportunities.

› Interdepartmental collaboration was mentioned to improve staff efficiency and importance of staff's input on their needs and desires.

› According to council funding and staff capacity are major challenges for the Town and need to be addressed to continue to provide high quality services.

⌃ Figure 8.29 - *Draft Recommendations Presentation to Staff*

PUBLIC INPUT MEETING # 2

Purpose: To seek input from the public regarding the proposed recommendations to the Parks, Recreation, Greenways and Open Space Master Plan.

Method: The project team hosted a two-hour open house at the Apex Senior Center. Participants began the meeting with a recorded presentation on the Master Plan process. Following the presentation, they had the opportunity to interact with the project team and provide feedback verbally and through a series of ten boards. The ten boards illustrated the project process + timeline, proposed recommendations, and opportunity for open feedback. A total of 15 individuals participated.

⌃ Figure 8.30 - *Open House # 2*

Summary

The greenways boards illustrated proposed connections and asked participants to identify missing connections and priority greenway projects. Participants requested to connect Friendship School and Pleasant Park and priority was placed on downtown connectivity. A way to promote the greenway system was suggested by acknowledging those who have completed all portions of the greenway system by rewarding them with a pin or a badge.

Search areas are determined by identifying geographic access gaps through walkability and drive time analysis combined with the community engagement feedback. Participants were asked to mark areas on the map where they would like new park facilities. Participants also noted desire for a new nature park near Harris Lake, playground with looped walking path and exercise equipment, more pocket parks, whirligig features along walking paths, unique art walks, and story walks in the comments section.

The board for Indoor Recreation Space + Programming illustrated the current locations for indoor recreation facilities and asked participants to identify locations for desired future indoor recreation facilities. Participants marked the following locations- Future Recreation Activity Center Area, Wimberly Road, and Nature Park. Comments for this board included the desire to have indoor facilities within walking distance. Participants also included desire for additional indoor facilities such as indoor gym, basketball, jogging track, and Olympic size pool and suggested extended gym hours.

The Existing Parks board provided potential opportunities for participants to provide any feedback on existing parks and amenities. For Kelly Road Park, participants mentioned that they enjoy the unique and colorful playground and added the desire to see similar play features such as the train, pirate ship and rocket ship with upgraded materials.
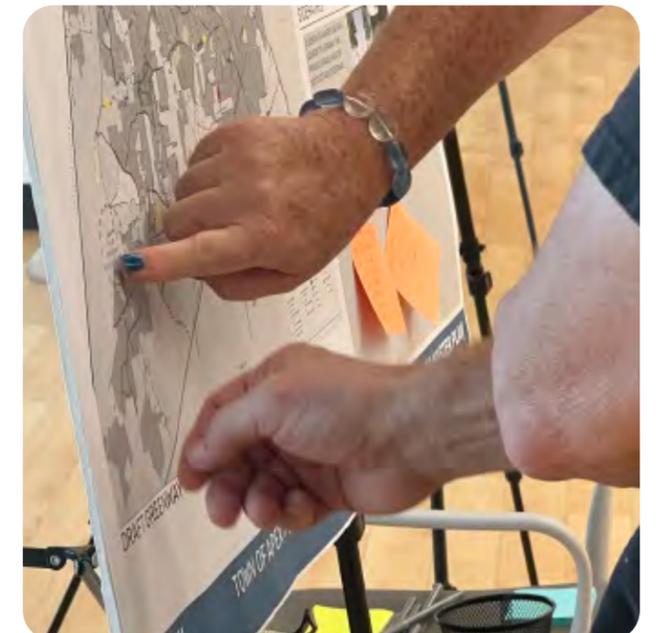
⌃ Figure 8.31 - *Open House # 2*

Participants suggested that Community Park should have additional fishing opportunities and education, the addition of a boardwalk or pavilion for events and improve the restrooms by the tennis courts. The Senior Center could have additional wayfinding signage as it is currently hard to navigate from the main Town Hall Campus entrance.

The results of all initial community engagement and the visioning sessions culminated in developing the overall framework of three components Experience, Expand and Excel, on which the nine guiding principles of the comprehensive plan are based. These guiding principles were shared with the public at the open house for validation. A participant suggested the addition of stewardship and preservation of existing nature resources and features in the Environmental Stewardship guiding principle.

The Sneak Peek at 2031 Apex's Park System illustrated various ways the park system will be in the year 2031 with full implementation of this Master Plan. Participants noted support for technology and kids programs.

The final board provided the opportunity for any additional feedback. A participant voiced positive parks staff interactions with friendly and cheerful people help participants engage with parks.

WEST STREET PARK MASTER PLAN

McAdams team conducted public engagement meeting at the West Street Park to discuss potential improvements to the park property. The preliminary report for this engagement opportunity is provided in the appendices.

GUIDING PRINCIPLES DEVELOPMENT

The project team developed a set of nine guiding principles based on the results of the community engagement and the needs assessment findings. The guiding principles form the basis for the recommendations crafted over the ten-year planning horizon. They guide the decision makers and the department staff towards right strategies, practices, and processes for prioritizing and implementing these recommendations. These nine guiding principles are explained in greater detail in the Recommendations chapter.
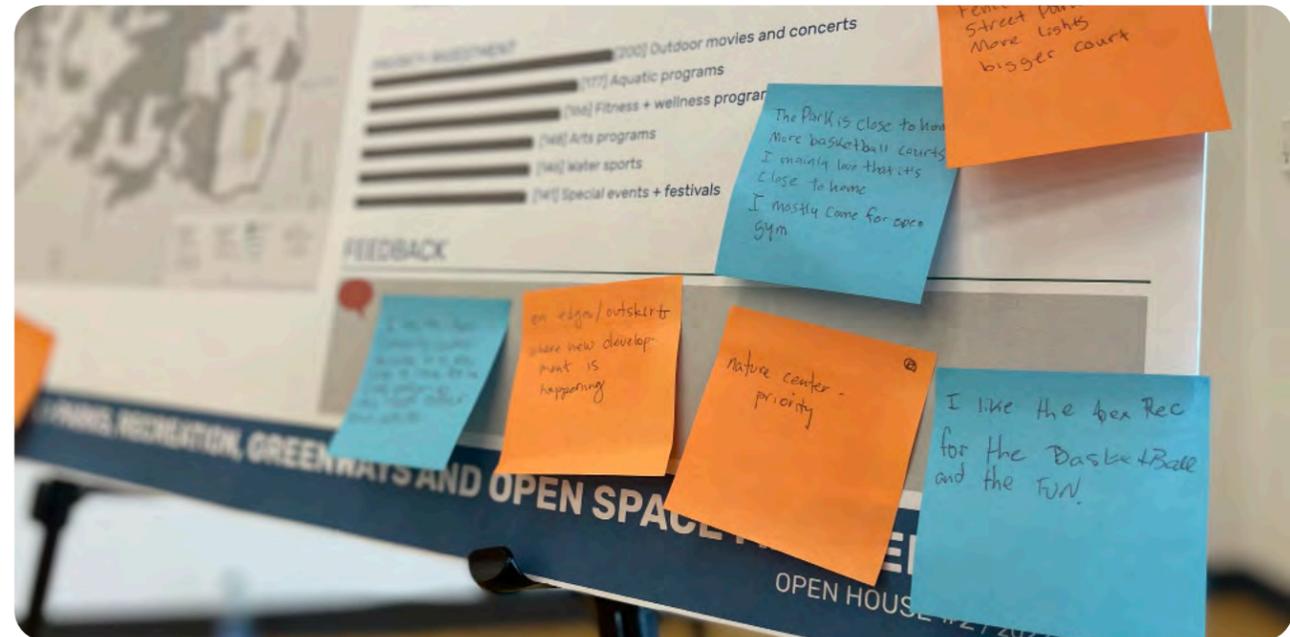
Figure 8.32 - *Open House # 2*

09 | **BENCHMARKING + LEVEL OF SERVICE**

Level of service, benchmarking, and parks and recreation industry standards provide important metrics for guiding future growth in parks and recreation. Considered together, these metrics provide a broad understanding of current parks and recreation conditions in the Town, similar jurisdictions and nationally by providing concrete comparative numbers. This analysis provides detailed metrics and statistics that should be considered within the full context of parks and recreation services the Town of Apex is offering residents. For the purposes of benchmarking, National Recreation and Park Association (NRPA) reporting has been utilized as the organization is the leading non-profit dedicated to the advancement of public parks, recreation, and conservation. Their work draws national focus to the far-reaching impact of successes generated at the local level.

This plan does not adopt any standard wholesale, but considers the full analysis, staff input, and community input to help identify standards and metrics that will be meaningful points of guidance as the Town grows its parks and recreation services to provide for an increasing population

Figure 9.2 - *Middle Creek Greenway Signage*

CURRENT LEVEL OF SERVICE	NRPA BENCHMARKING	PROPOSED LEVEL OF SERVICE
Measures the Department's current offerings. Analysis is local.	Compares measures among similar jurisdictions across the US. Analysis is national.	Measures the Department's future offerings based on projected population and growth. Analysis is local.
This analysis asks: **What do we offer?**	This analysis asks: **What do others offer?**	This analysis asks: **What should we offer or anticipate to offer in the next ten years?**
The Level of Service analysis identifies what the Town is currently offering, based on the current population at the time of the review. This metric forms a baseline standard that is population based moving into the future. The analysis answers the questions, what is offered and how much does the Town of Apex offer to the current population?	The NRPA benchmarking analysis relies on the annual NRPA Parks Metrics Report to compare Apex with communities across the US that share similar characteristics with the Town. This generates an understanding of the department's strengths and chosen areas of expertise. Shortcomings in benchmarking may represent deficiencies or areas that have been deprioritized in favor of other priorities.	National standards and best practices serve as an "ideal state" for parks and recreation in a community. These standards may account for emerging trends communities are beginning to implement. When compared with the national standards, the Town sets achievable goals for the next ten years. This analysis answers the question, what and how much should the Town of Apex provide over the course of the next ten years to satisfy the needs of the projected population?

⌃ Figure 9.3 - Level of Service Framework

LEVEL OF SERVICE (LOS)

The Level Of Service measures how much access to parks, greenways and indoor facility space residents have based on the park system's current inventory and the jurisdiction's total population. Parks and Recreation LOS metrics cannot be used as absolute recommended standards, but they can be helpful in determining deficits or surpluses within what the Department provides in anticipation of the growth the town will experience over a period of ten years. The level of service, combined with benchmarking and best practices, will provide the foundation for this plan's recommendations of how much parkland, trails, and indoor facility space the department should acquire or construct to meet the recreation needs for the future, based on population growth.

Methodology

In this Benchmarking and Level of Service Analysis, data was obtained from the 2022 National Agency Performance Review by NRPA, the leading not-for-profit organization dedicated to park agencies throughout the United States. The NRPA obtains data from thousands of park and recreation agencies nationally and shares their information to assist park agencies to improve their park system and to meet the needs of the residents in the communities they serve.

For this analysis, Apex data and data from the National Recreation and Parks Association was organized by ten metrics for the areas to be compared. The population for the Town of Apex and the NRPA Parks Metrics Data are paralleled by relating to "per 1,000 residents" rather than the total population. Some data for residents are calculated per capita and in percentages, and the overall comparison must be viewed with this in mind. The benchmark analysis used the most up-to-date information possible and is a sample of operating metrics that factor budgets, staffing levels, sports fields, and parkland data. In order to compare as close as possible to NRPA's population data, the population segment (50,000 to 99,999) was used for the population comparison to the Town of Apex.

The PRCR Department benchmark data was derived from the following information:

› 2021 Population - 62,689
› 2031 Population projection – 81,986
› Total parkland acres - 629 (311 Developed Acres / 117 Acres Future Parkland / 181 Acres Conservation Land
› Miles of trails - 25.9 (4 miles natural surface trails, 19 paved, 2.9 miles of paved loop trail in parks)
› Total indoor recreation space – 86,294 sq. ft.
› Total operating expenditures in parks and recreation budget - $6,039,900
› Full Time Employees (FTE's) for all park operations - 46
› FTE staff members dedicated to operations and maintenance -27

The level of service is a ratio that includes the current offering of parkland, trails, and facility space, divided by a portion of the current population. Parkland and trails are calculated based on a rate per 1,000 residents, and indoor facility space is based on a per capita rate, or rate per 1 resident. This difference reflects reporting standards created by the National Recreation and Parks Association. Numbers have been rounded to two decimal places.

This formula is used to determine the current level of service for any given population number. Current level of service is determined using the current population, and the future level of service is determined based on future population projections. This plan determines the 2031 level of service using population projections determined in the Demographics and Trends chapter.

$$\frac{\text{parks and recreation offering}}{\text{portion of population*}} = \text{Level of Service}$$

(*EITHER per *1,000 population* OR *per capita*)

Current Level of Service

The Department's current level of service is summarized in the table below. The table shows the Department's offering for parkland, trails, indoor facility space, outdoor fields and courts, and selected park amenities.

The purpose of the level of service analysis is to establish a baseline level of service standard for the Department's current and future offerings, based on the existing and projected population. Using a population-based metric such as LOS results in a standard used to project future needs based on population growth, for parkland, trails, indoor facility space, outdoor fields and courts, and park amenities based on future population.

Analysis

This benchmarking analysis summarizes data for the following categories:

› Parkland
› Trails
› Indoor Facility Space
› Finances
› Capital Improvement Budget
› Staffing

It is a common tendency to believe that numbers above the median indicate positive performance and numbers below the median, deficiencies. Another common tendency is to believe that numbers below the median must be increased to the standard, while numbers above the median indicate a jurisdiction is over-providing a service or a high-performing provider. A better interpretation is to consider metrics as a representation of services the jurisdiction has chosen to currently invest. A high metric may indicate a service particularly important to the Town. A low metric may indicate an area in need of additional investment, or an area that is not considered a priority. A benchmarking and level of service analysis may identify areas where the department is excelling or falling behind, but it is essential to understand the context and connections between all metrics rather than focus on one isolated fact.

APEX PARKS, RECREATION & CULTURAL RESOURCES (POPULATION= 62,689; PROJECTED = 81,986)
NATIONAL RECREATION AND PARKS ASSOCIATION & BEST PRACTICE RECOMMENDATIONS
(NRPA POPULATION RANGE = 50,000-99,999)

Metrix	Town of Apex	NRPA (Low Quartile)	NRPA (Median)	NRPA (Upper Quartile)
Acres of park land per 1,000 residents (Includes 117 Ac undeveloped land)	10.03 acres	4.7 acres	9.2 acres	15.9 acres
Total trail miles	25.9 miles	7 miles	14 miles	29 miles
Total operating expenditures for the park budget	$6,039,000	$4,330,118	$7,330,336	$11,824,509
Operating Expenditure per park operations FTE	$131,283	$79,952	$103,272	$142,340
Operating Expenditure per acre of Parkland	$9,600	$5,527	$9,642	$20,766
Operating Expenditures per capita	$96	$61	$104	$180
Parks and recreation agency staffing (FTEs)	46	38.7	64.1	117.3
Staffing (FTEs) per 10,000 residents	7.3	5.3	9.6	14.4

 Figure 9.4 -NRPA Parks Metrics Data Comparison

INDOOR RECREATION SPACE: BEST PRACTICES*

Metrix	Town of Apex	Best Practice Standard
Space	1.37 sf/ person	2.0 sf/ person*

*Note: Best Practices standard provided by PROS Consulting

 Figure 9.5 -Indoor Recreation Space Best Practice Standard

Park Land

NRPA Parks Metrics calculates acres of park land per 1,000 residents. Town of Apex's level of service for parkland is calculated using the same ratio of total park acreage within the system to the number of residents. Apex currently has 10.03 acres per 1,000 residents. This is nearly 6 acres per 1,000 residents less than agencies in the NRPA high quartile (15.9 acres per 1,000 residents) and 0.83 acres per 1,000 residents higher than the NRPA median (9.2 acres per 1,000 population). The Town currently has 629 Total acres in park system (311 Developed Acres / 117 Acres Future Parkland / 181 Acres Conservation Land). It is anticipated that the 117 undeveloped acres could become future park development. This includes the two recently acquired parklands and the additional undeveloped acreage within existing parks. If the current undeveloped parkland were to be removed from the acres per population calculation, the current level of service would be 7.84 acres/ 1,000 residents which is still higher than the NRPA lower quartile data.

Town of Apex
10.03 acres/ 1,000 population

NRPA
15.9 acres/ 1,000 population

 Figure 9.6 - *Disc Golf at the Nature Park*

	CURRENT OFFERING	CURRENT LOS	RECOMMENDED LOS	NEEDED TO MEET RECOMMENDED LOS (CURRENT POP.)	NEEDED TO MEET RECOMMENDED LOS (FUTURE POP.)
	Total Acres	(Acres / Per 1,000 Population)		Acres	
(Current LOS Maintained)	629	10.03	10.03	629	822
Option 2 (LOS Upper Quartile)	629	10.03	15.9	997	1,304

 Figure 9.7 - Level of Service- Parkland

As shown in the chart above, as Town of Apex continues to grow over the 10-year planning horizon, an additional 193 acres of parkland would need to be acquired in order to continue providing the current level of service of 10.03/ 1000 population, bringing the total parkland acreage to 822 acres. If the Town would like to increase the LOS to 15.9/1000 population, the parkland needs increase by 997 total acres for the current population and 1,304 total acres for the 2031 projected population.

It is necessary to emphasize contextualization of existing conditions and resources that are readily available in the local environment to make an informed decision regarding the level of service standards. Every agency has its own unique set of realities that may present barriers to achieving a baseline level of service. This is particularly true of parkland acquisition. Many local governments have a limited ability to acquire land. The Town of Apex is constrained by a limited availability of land overall, lack of reasonably priced property for sale, and development site suitability where the land is in high demand for other types of land uses. It should also be considered that as Apex grows towards build-out, the Town will have more challenges to acquire new parkland and the level of service will start to decline as the population continues to grow beyond the next ten years. This plan recommends the Town of Apex maintain their current level of service of 10.03 acres of parkland per 1000 population which would require acquisition of 193 acres of parkland within the ten-year planning horizon. As an aspirational long-term goal, the Town can plan to increase the level of service to 15.9 acres/ 1,000 population and acquire an additional 675 acres as a land banking strategy. To accomplish this goal, the Town will have to evaluate the current land dedication and fee-in-lieu policy to ensure they acquire land suitable for park development.

Conservation Lands

Conservation lands are distinct from developed parkland because their emphasis is on preserving or enhancing the natural environment rather than providing active recreation. Conserved open space protects important cultural, natural, historic, ecological, scenic, and other community values. These may include areas of significant vegetation, important and sensitive habitats, scenic areas, wetlands, or areas that are otherwise considered undevelopable, too expensive to develop, or important to protect. They provide opportunities for wildlife habitat connections, and when access is provided via natural surface trail connections can offer opportunities such as hiking, photography, bouldering, and access to local flora and fauna with minimal impact to the natural features. These properties also provide significant environmental educational opportunities. Conservation lands additionally provide the environmental benefits of mitigating stormwater impacts, reducing heat island effects, and carbon sequestration.

The Town of Apex currently holds 28% (181 acres) of its total parkland as conservation land. As the town continues to grow, the PRCR Department should establish a goal for protecting its sensitive natural areas as conservation lands. While NRPA does not have a standard established for conservation vs. developable parkland, the industry accepted standard is 30% of parkland to be conservation land.
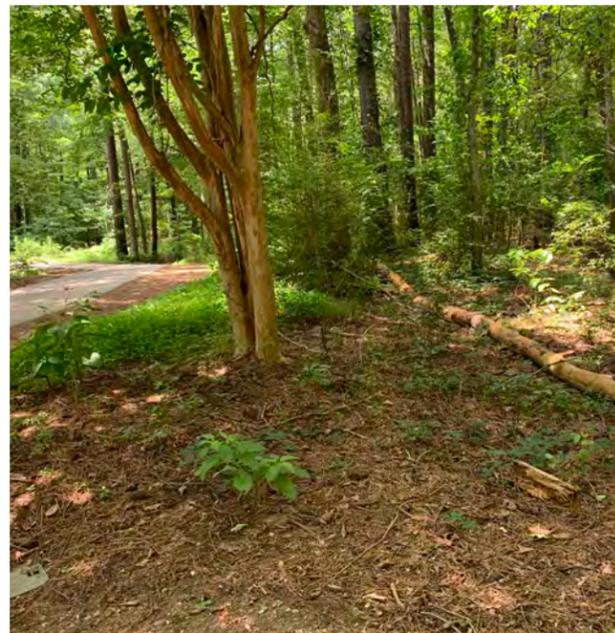
Figure 9.8 - Apex Community Park Greenway Trail

Current Total Parkland	Current Con-conservation Lands	Current LOS (Conservation land/Total Parkland)	Recommended LOS	Needed to Meet Recommended LOS (Current Pop.)	Needed to Meet Recommended LOS (Future Parkland if LOS is maintained at 10.03 ac/1000 pop = 822Ac)
629 Ac	181 Ac	28.8%	30%	188 Ac	246.6 Ac

Figure 9.9 - Level of Service - Conservation Lands

Applying this standard, the Town will need an additional 7 acres for current conservation acreage and an additional 65 acres in the next ten years if the future parkland acreage goal continues to be 10.03 acres per 1,000 population. The Town of Apex has a Resource Conservation Area (RCA) requirement outlined in the Unified Development Ordinance (UDO). This ordinance states RCA is required to protect sensitive environments including the floodplains, floodways, riparian streams and buffers, wetlands, mature forest areas, significant wildlife and plant habitats, and steep slopes when developing the land for all land uses. The UDO does allow for RCA to be dedicated to the Town and requires off-site RCA to be dedicated to the Town or other land conservancy organization, so there could be significant sites where the Town would prefer the dedication of RCA property. RCA requirement also includes historic and cultural sites, scenic views, farm ponds, rock outcrops, and cemeteries. Private open play lawns required by the UDO are not counted towards the total parkland acreage.

The PRCR Department should continue to pursue opportunities to acquire and protect areas for conservation, and where possible, link areas to form corridors for the benefits that they provide, ensuring high ecological functionality for future generations.

Total Trail Miles

29 miles

25.9 miles

Apex   NRPA

Figure 9.10 - Levell of Service- Greenway Trail Miles Benchmark

Greenway Trail Miles

The residents in the Town of Apex currently have use of 25.9 miles of trails in the park system compared to 29 miles per NRPA's upper quartile data. Greenway trails have grown in popularity as communities recognize the recreational, transportation, and quality-of-life benefits they provide. This analysis indicates that similar to many communities across the US that are undertaking the challenging task of constructing greenway trails, Town of Apex is also actively working to continue to develop trails and connect gaps in the current network.

Current Offering	Current LOS per 1,000 Pop.	NRPA LOS (Upper Quartile)	Recommended LOS	Needed to Meet Recommended LOS (Current Pop.)	Needed to Meet Recommended LOS (Future Pop)
Total Miles	(Miles / Per 1,000 Population)			Miles	
25.9	0.41	0.46	.46	28.8	37.71

Figure 9.11 – Level of Service - Greenway Mileage

As shown in the chart above, the Town of Apex is currently offering greenway trail mileage very close to the NRPA's upper quartile recommendation. In order to meet the NRPA upper quartile recommendation current population, Apex will only require building a little over two miles of greenways and an additional 11.81 miles over the next ten years to meet the needs of the community. Apex already has more than 33 miles of additional greenways in the planning and design stage which shows that the Department is focusing on the demand for more greenway mileage. Greenway development, connectivity, and closing gaps in the overall system have long been goals of the department that are highly supported by residents. This should continue and PRCR staff should work closely with long-range planning and transportation staff to implement adopted plans.

Indoor Facility Space

Park and recreation agencies offer various indoor facilities to their residents. According to the 2022 NRPA Agency Performance Report, more than three in five agencies offer community centers and recreation centers. Also common are senior centers, performance amphitheaters and nature centers. NRPA Parks Metrics provides recommended level of service based on population served per facility. Based on the analysis shown in the chart above, the Town currently needs to add a minimum one recreation center and one nature center to meet the

Type of Indoor Facilities	NRPA Median Number of Residents Per Facility	Town of Apex	Needed to Meet Recommended LOS (Current)	Needed to Meet Recommended LOS (Future Pop)
Recreation Centers	40,817	0	1.5	2
Community Centers	44,933	1	1.3	1.8
Senior Centers	71,927	1	0.87	1.13
Nature Center	72,210	0	0.86	1.13
Cultural Arts Center	N/A	1	N/A	N/A
Aquatic Center	60,495	0	1.03	1.35

Figure 9.12 - Level of Service- Indoor Recreation Facility Types

recommended Level of Service by 2031, they will need two recreation centers and one additional community center. The computations shown in the table above reflect fractions of various types of indoor facilities that may be needed to support the projected needs of a growing community.

Based on population projections, the perspective of departmental staff, and community voices expressed during the engagement process, there is no doubt additional indoor recreation space is in demand.

While NRPA does not provide benchmarking data for indoor facility space per population, the project team has developed an industry standard based on the experience gained through working with communities across the US. The Town of Apex offers a variety of indoor recreation spaces including a community center, a cultural arts center, and a senior center. The Town of Apex provides 1.77 square feet of indoor recreation space per capita, which is below the benchmarking median of 2.0 square feet of indoor recreation space per capita.

Many times, the terms "recreation center" and "community center" are used interchangeably. While the services offered at these facilities can overlap, the primary purpose of a community center is more social gathering space compared to recreational services at a recreation center. For example, community centers offer amenities like meeting rooms, classrooms, conference rooms, and spaces for large group gatherings for larger community. They could include some indoor recreation amenities like gym, basketball court etc. Recreation centers focus on indoor recreation amenities and program offerings such as indoor fitness classes, art classes, or even an aquatic facility in a safe, inclusive environment.

Total indoor recreation space	Current LOS per capita	Recommended LOS	Needed to Meet Recommended LOS (Current Pop.)	Needed to Meet Recommended LOS (Future Pop.)
SQ FT			SQ FT	
86,294	1.37	2.0	125,378	163,972

Figure 9.13 – Level of Service- Indoor Recreation Space

Based on the calculations shown in the table above, Apex needs an additional 39,084 sq. ft. of indoor space for the current population and will need 77,678 sq. ft. additional space by 2031 to serve the growing population. The types of indoor facilities could include two small recreation centers at the two new park properties, a new nature center at the Nature Park, and a multigenerational community center to serve all ages and abilities.

Sports Fields and Other Park Amenities

The number of sports fields in Apex are benchmarked with NRPA Park Metrics data. Calculations are made from the 50,000 to 99,000 population categories to create a ratio to that of the current and projected population of Apex for the fields and facilities listed in the chart on the next page.

The NRPA divides soccer fields into youth and adult fields (7.6 and 4 respectively). Apex exceeds the NRPA in terms of the number of tennis courts, out of which 8 are also overlaid for pickleball. The LOS calculations for Apex include combined tennis/pickleball courts, whereas the NRPA makes a distinction for pickleball only. Additionally, Apex PRCR Department also uses 4 additional tennis/pickleball courts through Apex Elementary School level 4 use agreement which are not accounted for in the LOS calculations.

For other park amenities, Apex exceeds the NRPA standards for outdoor basketball courts and dog parks but shows deficit for playgrounds.

Field/ Facility	NRPA Parks Metrics	Town of Apex	LOS (Current Population)	LOS (Future Population)
Baseball/Softball	1/17,228 – Adult	6	3.6 – Adult	4.7 – Adult
	1/11,688 – Youth		5.3 – Youth	7.0 – Youth
Multipurpose fields (Turf)	1/13,151	3	4.8	6.2
Multipurpose fields (Synthetic)	1/34,104	10	1.8	2.4
Outdoor Basketball	1/8,477	9.5	7.4	9.6
Tennis courts	1/6,431	17	9.7	12.7
Pickleball courts	1/11,999	14*	5.2 pickleball only	6.8
Dog Parks	1/56,084	2	1.1	1.4
Playgrounds	1/3,807	13	16.4	21.5

* Out of 14 pickleball courts, 8 are combined tennis/ pickleball courts and 6 are exclusively pickleball courts at Pleasant Park.

Figure 9.14 - Level of Service- Recreation Amenities

Operating Expenditures

Level of Service metrics can help assess if the PRCR Department is adequately funded to manage, operate, and maintain its parks and recreation facilities. Operating expenditure includes direct and indirect costs incurred by the Department to provide parks and recreation services to the community. This includes the staff salaries, benefits, tools and equipment, repairs and replacements of materials, and the actual expenses of managing a facility.

Apex has $6,039,900 in operating expenditures while the National Recreation and Parks Association (upper quartile) reports $11,824,509 which is almost twice that of Town of Apex. The Town of Apex is growing at a pace that is difficult for the PRCR Department to provide appropriate level of service within approved budgets and it appears that the department is underfunded for the services it currently provides. This plan will recommend funding strategies to help the Town increase their spending capacity.

Apex $6,039,000 Total Operating Expenditure

National Recreation and Parks Association $11,824,509 Total (upper quartile) Operating Expenditure

Figure 9.15 - Level of Service- Operating Expenditure Benchmark

Operating Expenditures per Full Time Equivalent

Another metric to demonstrate adequacy of expenditures for a park system is a ratio of expenditures per full time equivalent employee. This ratio shows the comparison for benchmarking other agencies, not only by the size of their park or population, but the cost per employee for maintaining the system.

As the chart to the right shows, Apex's operating expenditure is $154,869 per FTE. This amount is $12,529 more than National Recreation and Parks Association agencies at for the dollars per FTE in the upper quartile. The National Recreation and Parks Association agencies operating expenditures per FTE is $142,340.

Operating expenditure per FTE is a metric that inversely relates total operating expenditures to the total FTE. As the PRCR Department is considered understaffed, the operating expenditures are naturally higher than the NRPA metrics. A parallel increase in the number of staff hired and the higher operating budget will help ensure that the Department continues the positive trend of operating expenditure per FTE ratio.

$154,869/ FTE $142,340/ FTE

Figure 9.16 - Level of Service- Operating Expenditure per FTE

Operating Expenditures Per Capita

Using the same ratio calculation and the population of Apex, the per capita spending ($96.35) is just over half that spent for operations expenditure per capita (upper quartile) as compared to National Recreation and Parks Association ($180). According to the NRPA Parks Metrics data, per capita operations spending is inversely related to the population of the served which means as the population of the Town increases, the operating expenditure per capita ratio reduces if the operating budget number is constant. The funding strategies recommended in this plan can assist the Town in increasing investment in the parks and recreation system. An increased budget for a growing population will help the Department catch up to the NRPA parks metrics standard.
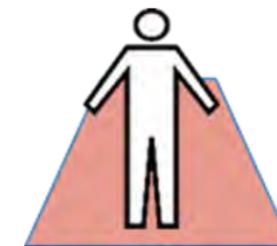
TOWN OF APEX
$96.35 Operating Expenses per Capita

NRPA
$180 Operating Expenses per Capita

Figure 9.17 - Level of Service - Operating Expenditures per Captia

Operating Expenditure per Acre of Parkland

The Town exhibits a significant difference between their per acre expenditure for parkland when compared to National Recreation and Parks Association per acre expenditure for parkland. Apex spends $9,602 per acre of parkland on operating expenditures, and NRPA Agencies in upper quartile segment spend $20,766 per acre and median at $9,642. Apex is lower per acre than the NRPA upper quartile by $11,164 but right at the median. As the parks use continues to increase and new parks are added to the system, the Department should expect to see a rise in expenditures related to parks maintenance, additional staff and resources, and program offerings.

| $9,602 per Acre - Apex | | |
| TOTAL BUDGET | $6,039,900 | |

| $20,766 per Acre - NRPA | | |
| TOTAL BUDGET | $11,824,500 | |

Figure 9.18 - Operating Expenditure per Acre of Park and Non- Park Sites

STAFF PER 10,000 RESIDENTS

The number of staff per 10,000 residents indicates the population served by the staff operating the parks and recreation services. NRPA agencies report 14.4 staff members per 10,000 residents while Apex is considerably less with 7.3 staff per 10,000 residents, showing a deficiency in the Apex staff members serving the residents of the Town. As Apex's population is projected to increase to 81,986 by 2031, the Department will need an additional 72 staff members to ensure high quality recreation services are continued to be offered. It should be noted that NRPA Parks Metrics provides the data-driven objective baseline comparison at national level which needs to be contextualized for Apex and measured against other subjective criteria such as staffing workload, interdepartmental collaborations, contracted services, joint-use agreements, and level of expectations for quality of service.

The Apex PRCR Department has been proactive in requesting additional positions. As of June 2022, the Department will add eight new positions by next year, bringing the total FTE to 54 and LOS number to 8.6, closer to NRPA median number. Additional staffing positions are suggested in the recommendations chapter.

Town of Apex Total Current Staff	Staffing LOS Staff/ 10,000 Pop	NRPA Parks Metrics LOS	Staffing Need (Current Population)	Staffing Need (Future Population)
46	7.3	14.4	90	118

Figure 9.19 - LOS - Staffing Benchmark

STAFF DEDICATED TO PARK OPERATIONS AND MAINTENANCE

Comparing the National Recreation and Parks Association agencies to Apex, 117.3 staff members are on the staff of agencies in the upper quartile of those with populations of 50,000 to 99,999. Apex has a staff of 27 members, while the National Recreation and Parks Association agencies have four times that amount of personnel dedicated to operations and maintenance. The PRCR Department plans to add three new full-time positions in the coming year. While this is progress, the department is still significantly understaffed and will have to continue the efforts to bring in new positions to ensure the current staff is not overwhelmed with work arising from new park and greenway facilities.

DEDICATED MAINTENANCE STAFF

The National Recreation and Parks Association does not provide data for the upper quartile or lower quartile for the percent of staff dedicated to operations and maintenance. This metric will use the median population for the comparison. According to the 2022 Parks Metrics report, on average, an agency's full-time staff dedicated their time to the following general activities:

Time Commitment

4%
3%
17%
45%
31%

■ Operations/ Maintenance ■ Programming ■ Administration
■ Capital Development ■ Other
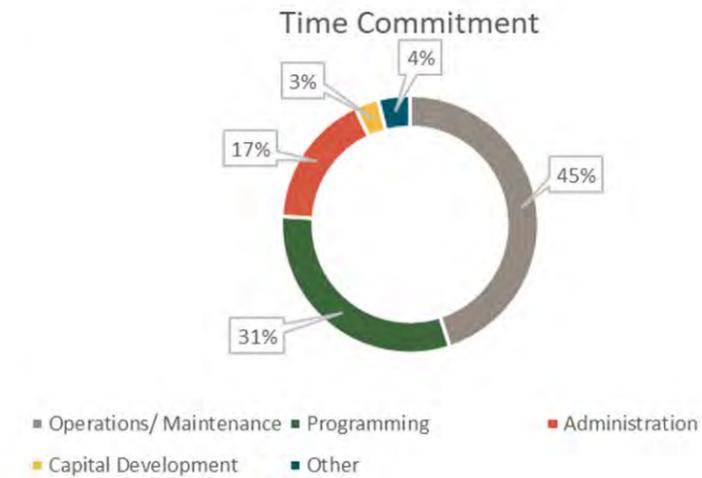
Figure 9.20 - Staffing Responsibilities per 2022 NRPA Parks Metrics Data

APEX
27
staff members dedicated to operations + maintenance

NRPA Parks Metrics
117.3
staff members dedicated to operations + maintenance

NRPA median for the percent of total FTEs dedicated to operations and maintenance is 45%. Apex has a larger percentage of operations and maintenance staff at 58% of all agency staff. The PRCR Department currently does not have a balanced staff distribution which is the result of the PRCR Department being understaffed. The visioning sessions conducted with the staff underscored the need for additional hiring in the administrative and planning areas. This will also help reduce the current gap that shows heavy focus on operations and maintenance.

Apex has **58%** staff as operations and maintenance

NRPA's Parks Metrics data shows **45%** of staff in operations and maintenance

Figure 9.21 - *Town of Apex Staff*

GEOGRAPHIC DISTRIBUTION OF PARKS, FACILITIES, AND AMENITIES

Understanding the existing geographic distribution of parkland and facilities helps identify gaps in the current level of service provided and aims to offer more recreation opportunities to areas that appear underserved. This component of the Level of Service analysis looks at where parks, recreational amenities, and indoor facilities are located across the Town of Apex, identifies gaps, and speculates on why gaps occur to inform recommendations for enhancing the equitable distribution of recreation opportunities.

Parkland Distribution

The Town of Apex's planning boundary is determined from previous planning efforts such as the Transportation Plan and the Future Land Use Map. Based on our analysis, the Town of Apex's parkland appears to be well distributed throughout the Town. The two largest parks, Apex Community Park and the Nature Park, serve the northeast and western areas respectively. Hunter Street Park offers unique programming opportunities in the center of downtown and Salem Pond Park offers a balance of athletic programs and passive recreation in the northern part of the Town. As the Town is growing towards the south and west, Apex has invested in a 92-acre destination facility, Pleasant Park, and has acquired two large tracts of land to provide access to parks and open space in the northwest and western sections, there is also an approved planned development which will provide additional park acreage in the south section of the Town. While the Town has been proactive and is making concerted efforts to ensure equitable access to parks and facilities for the rapidly growing community, a closer look at the distribution reveals gaps. For example, southeastern and southwestern sides of the town are significantly devoid of any parkland or indoor facilities. While the Southwestern portion is closer to the fingers of Jordan lake conservation areas, the eastern side is land locked with Town of Cary and Town of Holly Springs jurisdictions. Through this analysis, it is apparent gaps in access to public parks exist, however, it is important these gaps be further investigated to determine if providing parks/ land is possible and/or truly needed in these areas.

Access to Parks

The Trust for Public Land (TPL), Urban Land Institute, and NRPA joined hands in creating a 10-minute walk to a park campaign with a goal that everyone should be able to reach the nearest park or open space within ten minutes or half a mile distance from their home. This initiative is being embraced by parks and recreation agencies across the US to achieve equitable access to parks, recreation facilities, and programs to help residents achieve positive health outcomes related to walkability and access to spaces that encourage physical activity.
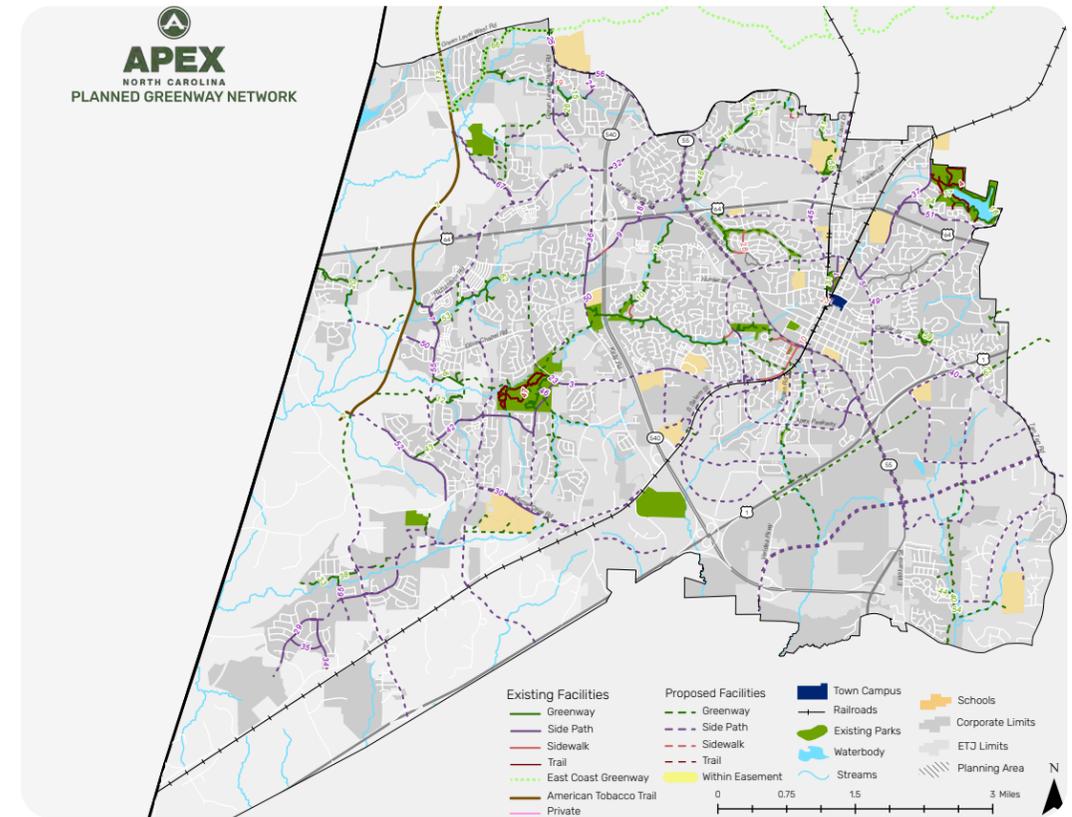
Figure 9.22 - Current *Geographic Distribution of Parks, Facilities, and Amenities*

The Trust for Public Land shares a database that tracks park-related data for communities around the country. The analysis is based on census data and it provides metrics for community-wide walkability including demographic characteristics of those living within a 10-minute walk of a park. For each park, TPL created a 10-minute walkable service area using a nationwide walkable road network dataset provided by ESRI. The analysis identifies physical barriers such as highways, train tracks, and rivers without bridges, and chooses routes without barriers.

According to the 2022 TPL report, 46.5 percent of Apex residents are within a 10-minute walk of a park, which is below the national average of 55 percent. If this deficit were to be addressed, the Town of Apex would prioritize connectivity to make parks and facilities accessible by walking which provides the following benefits:

> Increased opportunities for exercise
> Enhanced quality of life
> Expanded access for at-risk youth and low-income families
> Improved connections and social relationships among community members
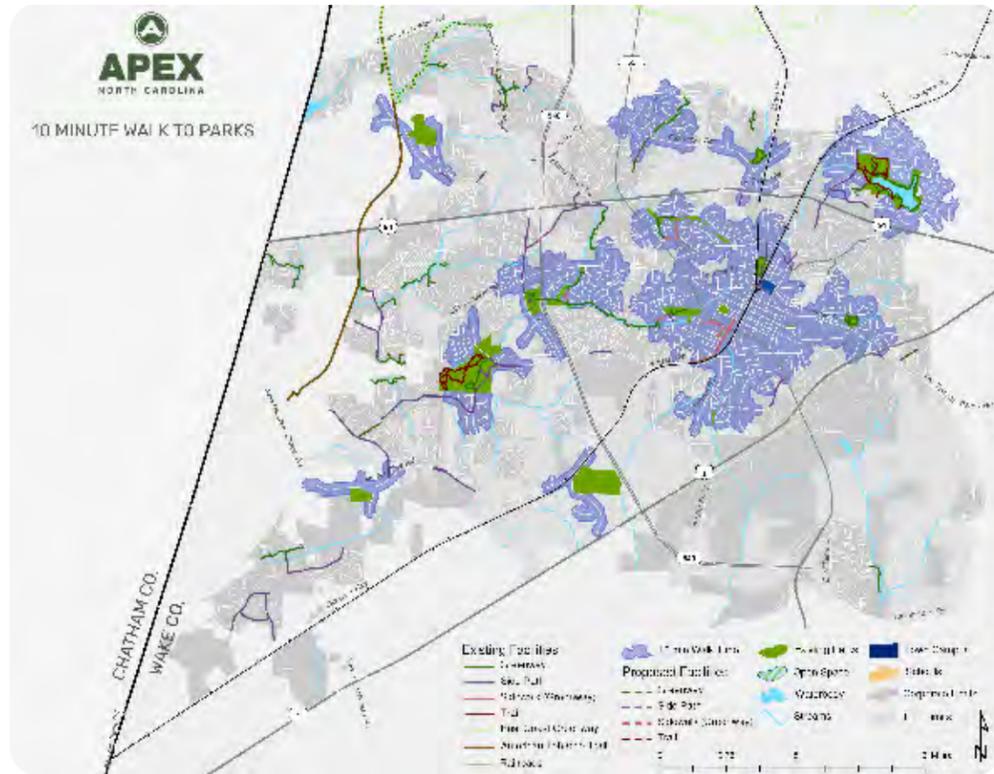
Figure 9.23 - *10-minute Walk Map*
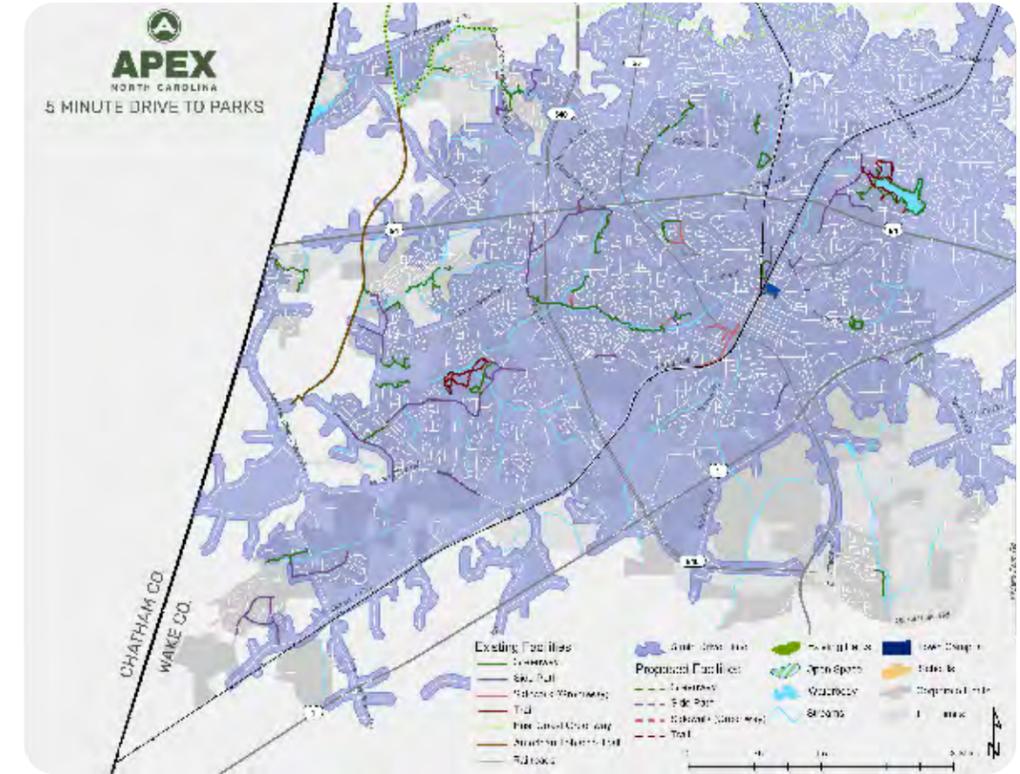
Figure 9.24 - *5-minute Drive Time Map*

As shown in the 10-minute walk to a park map above, the older part of the Town shows better connectivity to parks and open spaces. This is partly due to the density of the older town and well-developed roads and sidewalk connections to parks. Community Park and Nature Park have isolated 10-minute walk clusters around the access points, whereas the future Pleasant Park has limited access because the railroad and highway 540.

The existing greenway network is considerably fragmented and through recommendations in this plan, the Town will adopt a long-term vision for a system-wide connected network. Existing greenway trails connect parks and residential areas to their surroundings. However, many greenway trails currently dead end and provide only out-and-back walking opportunities. This situation will be rectified as the network expands and offers additional connections. The map illustrates how the greenway system effectively expands the residents within a 10-minute walk of a park or greenway facility. Though the smaller segments show larger 10-minute walkshed coverage, there are many gaps created by typical suburban development patterns. Various challenges regarding connectivity and gaps are addressed in the greenway chapter of this document. As shown on the map for greenway walkability, the southeastern portion of Town still shows an absence of parks, open space, and greenways.

While the 10-minute walk campaign is often used as a tool to measure level of service to access parks and open space, many suburban communities across the country have noted that the lack of density presents challenges in developing the necessary infrastructure to achieve this goal. For this reason, we included a 5-minute drive time analysis to Apex's existing parks. As shown in the drive time map below , the majority of Apex's population is within a 5-minute drive of an existing park. A close look at the map still shows a significant gap in the southeastern area and minor gaps in the north and southwest planning boundary.

Social Vulnerability and Access to Parks and Greenways

The equitable distribution of parks, open spaces, and greenways can be analyzed through the lens of a 10-minute walk time map overlaid with socially vulnerable areas of the Town. Government investment in parks is intended to create benefits for the whole community. For example, providing places to exercise in parks creates an individual benefit for those who use the space, but provides expanded benefit to the community by improving health outcomes and minimizing health care costs that individuals with sedentary lifestyle habits tend to incur. In areas with higher social vulnerability, a park may provide a valuable resource to an individual who may not otherwise have access to these resources.

The Social Vulnerability Index combines demographic characteristics commonly used as indicators for areas considered at risk of experiencing negative social or health outcomes. Social vulnerability includes an analysis of socioeconomic status, household composition and disability, minority status and language, and housing and transportation to determine the area's vulnerability. The dataset for this analysis was created by the Center for Disease Control and Prevention with the intention of assisting communities after a natural disaster, now also used for community planning in the areas of public health, parks and recreation, and greenways.

The 10-minute walk areas are overlaid with the social vulnerability index information to identify connections between social vulnerability and park location. The map indicates that the Town of Apex has overall low social vulnerability West of highway 540 and higher socially vulnerable areas concentrated in the older part of the town and the southeastern part. As mentioned earlier, the older part of the town has overall higher walkability because of the developed infrastructure whereas areas south of US 1 have higher socially vulnerable population and no parks, open spaces, or greenways.
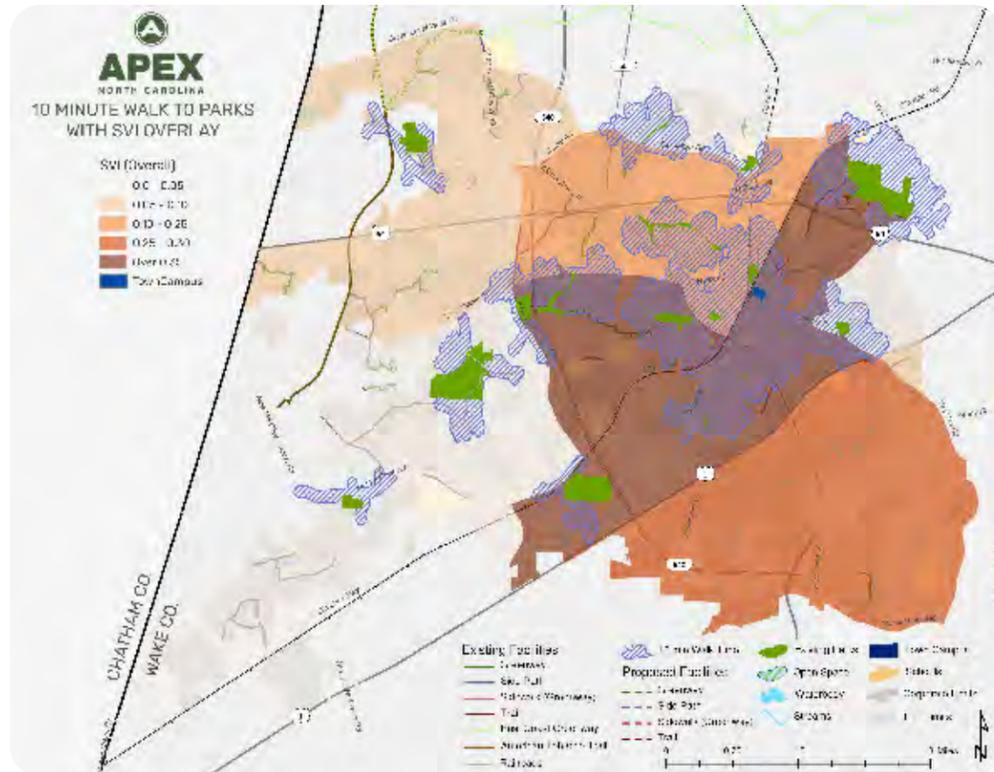
Figure 9.25 - *10-minute walk with SVI Overlay Map*
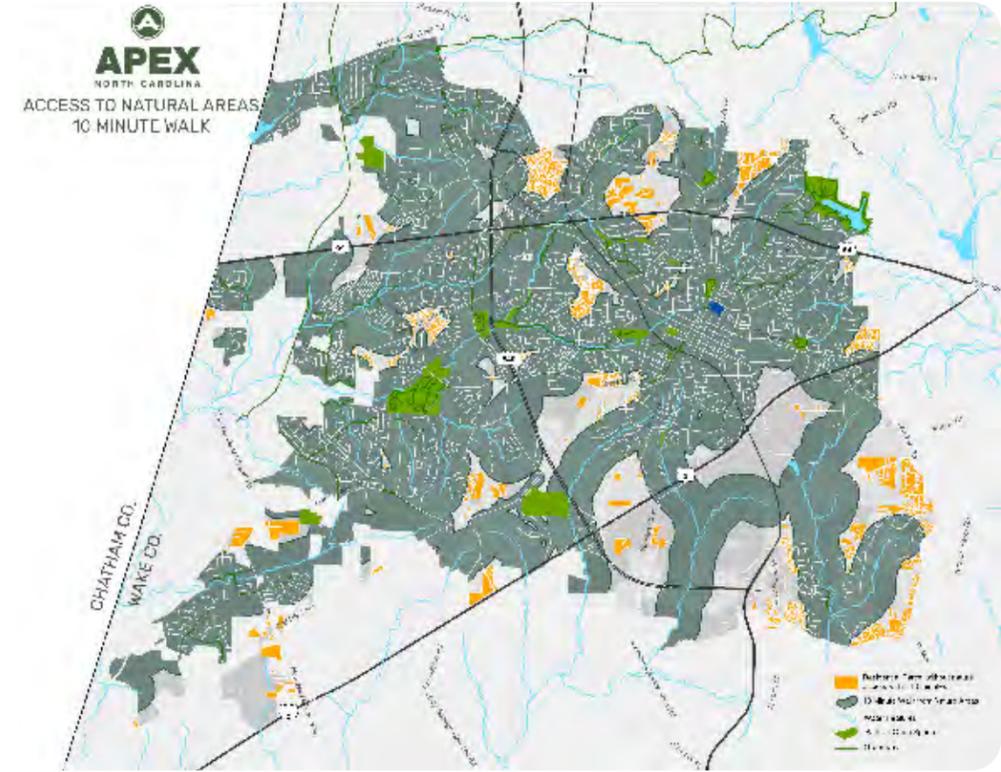
Figure 9.26 - *Access to Nature Map*

Access to Nature

Several studies in recent years have shown the positive correlation between access to nature and public health outcomes. High quality green spaces in the form of parks and conservation areas are widely viewed as health promoting infrastructure investments and have been linked to benefits such as recovery from mental stress, reduction in crime, reduced morbidity in multiple disease categories, and overall social cohesion[1]. Additionally, a growing body of research suggests that children disproportionately suffer the long-term developmental consequences of limited experiences in nature. Increased urbanization combined with limited access to natural spaces and increased time indoors has resulted in children's diminishing direct contact with nature. Evidence that children are spending more time indoors and less time in nature has also sparked research across the health and psychological sciences that links children's diminished contact with nature to important childhood health trends, including increased levels of depression and increased incidences of cognitive disabilities, obesity, and diabetes. The positive effects of nature exposure include improved cognitive functioning (including increased concentration, greater attention capacities, and higher academic performance), better motor coordination, reduced stress levels, increased social interaction with adults and other children, and improved social skills[2].

1   Beyer Kirsten M. M., et.al; "Exposure to Neighborhood Green Space and Mental Health: Evidence from the Survey of the Health of Wisconsin"; International Journal of Environmental Research and Public Health; 2014.

2   Strife Susan and Downey Liam; "Childhood Development and Access to Nature: A New Direction for Environmental Inequality Research"; National Institute of Health; 2009.

For these reasons, the project team mapped access to natural spaces including parks, greenways, open spaces, and buffer areas around blue-line stream corridors to understand the current gaps in providing access to nature within the limits of the Town of Apex. As shown in the map below, there are several pockets of residential areas that currently do not have access to natural areas. Again, the majority of gaps are seen in the south and southwest part of the Town and towards the west, close to Jordan Lake conservation areas. Future greenway development through the stream corridors' buffers and overall growing greenway network connectivity will help the Town provide better access to nature for Apex residents. The Town is also making efforts to increase the overall tree canopy within the corporate limits on private residential properties through the efforts by the Planning Department and Tree Citizen Advisory Panel. The PRCR department can join forces in these efforts through innovative programming such as community planting days on park properties or vegetation management through volunteerism.

There is mounting evidence that suggests playing in nature also has positive outcomes in social skills development and an increased awareness regarding environmental protection amongst children. Apex residents expressed the interest and inclination for environmental education and natural resources protection through community engagement. There is a great opportunity for the PRCR department to leverage the research findings in developing new nature-based programs for Apex youth and multi-generational nature-based facilities and programs. There is also an opportunity to investigate public health grant funding options to support these programs.

Play Equity

According to the available research data, there is a positive correlation between access to open space and play opportunities and positive health outcomes for younger populations. During the COVID pandemic, play areas with barriers to easy access contributed to rising rates of children's mental stress and depression and rising obesity rates because of a lack of physical activity. The concept of play equity considers equitable access to play areas and structured and non-structured recreational activities within easy reach of children that are safe and welcoming. The project team used existing play areas within parks and schools within the Town of Apex as an example to show the current state of play equity.

As shown in the map below, older parts of the Town have better access to play areas. The residential areas along the periphery of the Town do not have access to public play areas. These subdivisions may have HOA-owned play areas and central open spaces that are not part of this analysis. The town should investigate opportunities for joint-use agreements with public and private educational institutions, and libraries to increase equitable access to play for its younger residents.

▲ Figure 9.27 - *Play Equity Map*

SUMMARY OF FINDINGS

Benchmarking results indicate that, for many metrics, the Town of Apex excels when compared with the low quartile and median data sets. The town has been proactive in securing future parkland to provide a higher level of service for its growing population. Similarly, the Town is intentionally focused on developing a robust greenway network demonstrated by the number of miles constructed that are in the planning and design stage.

Town of Apex ranks low for indoor facility space and currently does not offer indoor recreation space for aquatics or a dedicated nature center or environmental education center. The plan recommendations will suggest strategies to close these gaps.

This analysis reflects the Town of Apex lacks staffing levels per capita and total FTE for the given population range. While the Department is planning to add more recreation staff in the coming years, there are additional staffing resources needed for administrative and planning areas.

While several Level of Service metrics revealed needs for additional resources such as parkland acquisition, conservation lands, additional greenway mileage, and staffing, these standards should not be considered absolute; but contextualized by the PRCR Department annually to ensure that they reflect the values and guiding principles identified in this plan. The standards can be changed or updated based on the changing priorities or new projects to truly reflect the needs of the community and the Department's capacity to deliver high quality services.

▲ Figure 9.28 - *Town of Apex Staff*

10 | **RECOMMENDATIONS**

A strong vision for the Town's parks and recreation future stands on the guiding principles established through robust community engagement, staff and stakeholder involvement, and the needs assessment findings. Rooted in community values, the guiding principles create the foundation for recommendations and action items. While the recommendations and action items may change or shift priorities to achieve the desired outcomes, the guiding principles protect the vision and core values of the community.

VISION

The review of existing data needs assessments, level of service analysis, and the overall community engagement process revealed an overarching vision for the Apex's parks system. This vision encompasses three key ideas– **Expand, Experience, and Excel.** Apex residents would like to Expand the Town's offerings with additional parkland, recreational programming, and a more connected greenway system while developing environmental stewardships programs and opportunities to strengthen the culture of belonging. They want to Experience the unique amenities and programs for all ages, abilities and interest that encourage a healthy lifestyle, explore cultural avenues and provide a strong sense of community. Residents want to see the PRCR Department Excel in operational efficiencies, outstanding customer service and best in class programming and facilities. These key ideas or themes form the foundation for the guiding principles and plan recommendations to achieve the vision for a modern, vibrant, and dynamic 21st century parks and recreation system.

THEMES
GUIDING PRINCIPLES
RECOMMENDATIONS
ACTION ITEMS
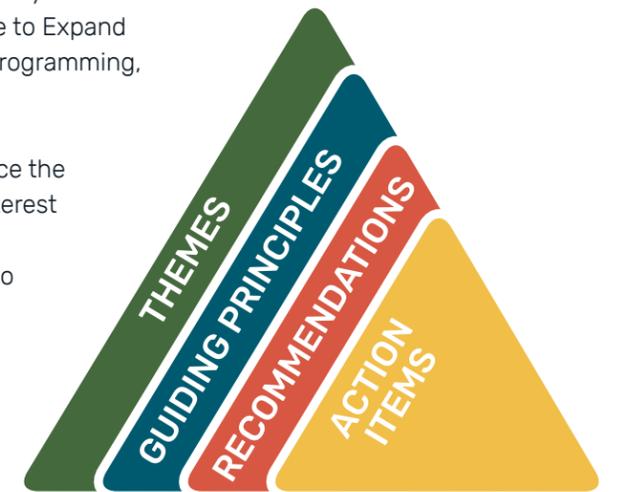
Figure 10.0 - *Recommendations Framework*

Figure 10.1- *Greenway Boardwalk*

THEME 1 - EXPAND

The Town of Apex is one of the fastest-growing towns within Wake County and will continue to grow over the period of the next ten years. Like other infrastructure expansions to accommodate this growth, parks and recreation services need to respond proactively and flexibly to these changes and be prepared to fulfill the needs of the newly migrated population. Apex currently has a good balance of large and small parks, well distributed within the town boundary. As the new developments are coming in, it is necessary for the PRCR department to be strategic about acquiring more developed parkland, building new indoor facilities, offering trendy and new recreation programs to attract new residents, and ensuring that these amenities are well connected via multiple modes of transportation and accessible for all. Additionally, the town should continue expanding its efforts to implement effective environmental stewardship practices to raise awareness about the importance of climate-positive design, protection of sensitive ecologies, and achieving operations sustainability.

APEXpand

CONNECTIVITY

Prioritize interconnected public realm through greenways, bikeways, and transportation.

CULTURE OF BELONGING

Nurture the culture of belonging by prioritizeing inclusion, diversity, equity, and accessibility.

RECREATION OFFERINGS

Expand recreation offerings to attract new participants, retain current ones, and meet the needs of diverse demographics of Apex.

ENVIRONMENTAL STWEARDSHIP

Expand efforts to protect the natural assets and collaborate on town-wide sustainability efforts.

Figure 10.2 - *Greenway - Commute to School*

Figure 10.3 - *Greenway Trail - Commute to Work*

1.1 Connectivity

Across the nation, the past ten to fifteen years have seen an increased interest in walking and biking as a form of exercise and an alternative mode to commute. The interconnected system of important community assets provides many benefits including healthy lifestyle choices, social interactions, contact with nature, protection of sensitive natural resources and habitats, and positive economic impact.

The Town of Apex is experiencing the desire and demand from residents for increased town-wide connectivity. Several town-wide initiatives and planning efforts are underway to improve and expand connectivity to local destinations, such as local parks, schools, commercial areas, and regional destinations via American Tobacco Trail and East Coast Greenway.

The Greenway Trails chapter in this master plan report is dedicated to this guiding principle. It provides details regarding current challenges in Apex, the benefits of greenway trails, design standards, additional principles that guide the proposed greenway trails system framework, and implementation strategies.

CONNECTIVITY

Prioritize interconnected public realm through greenways, bikeways, and transportation.

1.1.1 Implement the proposed greenway network plan to improve access to parks, other greenways, and other local and regional destinations.

1.1.2 Prioritize completion of greenway corridors that meet most criteria established in the prioritization matrix.

1.1.3 Encourage and support greenway use through placemaking strategies.

1.2 Recreation Offerings

One of the biggest challenges for parks and recreation departments in growing communities is to keep up with the increasing demand for new parkland and indoor recreation space. Regularly tracking the changing needs and program trends is essential to set up the strategic direction for system-wide growth and community engagement and support for the Department.

The Town of Apex has been experiencing consistent growth, similar to surrounding jurisdictions including the Town of Cary, the Town of Holly Springs, and Wake County in general. The recent growth trends have been responsible for the increased demand and need for recreation programs and park amenities as the demographic trends are shifting. The Town of Apex is proactively investing in providing new parks and acquiring parkland for future development. Pleasant Park is a great example of the Department's commitment to providing a unique destination park that will not only provide diverse recreation programming for the residents but also generate economic impact through sports tourism. The Town has acquired additional parkland in the western part of the Town and has plans to acquire more land in the Southeast portion of the Town where currently a significant geographic gap in proving park access exists. The community engagement process revealed the desire to continue to invest in existing parks and facilities to provide high-quality programs and amenities at these well-loved destinations.

Additionally, the shifting demographics also demonstrate the need for diversifying the recreation offerings to fulfill the needs of new residents moving into the Town.

The recommendations associated with this guiding principle are divided into two categories, parks and facilities recommendations, and programming recommendations. Through the implementation of these recommendations, the PRCR Department should ensure that a balance of sports fields, courts, spaces to celebrate, learn, and connect, and spaces for performances, historic landmarks, and natural areas are provided. Many growing cities are taking the approach of developing flexible, multi-functional spaces that afford different types of uses. Furthermore, it should be noted that the expansion of the parks system should be considered in conjunction with the high-quality care and services for the existing parks, facilities, and programs.

RECREATION OFFERINGS

Expand recreation offerings to attract new participants, retain current ones, and meet the needs of diverse demographics of Apex.

Parks and Recreation Recommendations

1.2.1 Acquire 193 additional acres to continue to provide 10 ac/ 1000 pop. Level of Service standard.

1.2.2 Build 39,084 sq ft of additional indoor facility space by 2031.

1.2.3 Develop the existing vacant parkland to continue to provide recreation offerings for growing population.

1.2.4 Continue to invest in existing parks and facilities to meet community priorities.

Programming Recommendations

1.2.5 Continue to offer diverse recreation programs for growing and changing demographics of Apex.

1.2.6 Effectively manage and operate the core program areas.

Figure 10.4 - *Rogers Family Skate Plaza*

1.3 Culture of Belonging

Belonging is the feeling of security and support when there is a sense of acceptance, inclusion, and identity for a member of a certain group[1]. Diversity, Equity, Inclusion, and Access (DEIA) have become buzzwords globally and when achieved through a strategic planning process, they result in developing a sense of belonging for a person or group of people who otherwise feel excluded. According to NRPA's Parks for Inclusion initiative[2], parks and recreation agencies are uniquely positioned to offer safe and welcoming spaces for all people regardless of their gender identity, physical abilities, and racial or cultural background. A firm understanding of community demographics, market research data, as well as recreation needs and priorities is essential to expand efforts in creating spaces and places where people come together, get inspired, and develop confidence about their value and place in the community.

Through parks and recreation, the Town of Apex desires to cultivate a sense of belonging within the community by intentionally developing opportunities to acknowledge diversity, promote inclusion, support equity, and provide fair and just access to all members of the community. The Town of Apex is a diverse community represented by many cultures and ethnic backgrounds. There is a strong representation of the LGBTQ community in Apex and residents are vocal about the recreational needs of the neurodiverse population and people with physical disabilities. The Town of Apex already provides several special programs such as PRIDE Festival, Juneteenth, and Latino Arts Festival to celebrate the cultural diversity within the community. In addition, specialized recreation programs are offered for the special needs population. By incorporating the recommendations suggested in this plan, the Town can enhance the current offering, provide new opportunities for people to make connections and educate themselves about the concept, and truly develop an environment where residents feel safe and welcome.

CULTURE OF BELONGING

Nurture the culture of belonging by prioritizeing inclusion, diversity, equity, and accessibility.

1.3.1 Achieve equitable access to parks, facilities, and programs for all Apex residents.

1.3.2 Support special events and programs that represent diverse cultures in Apex.

1.3.3 Continue to provide age targeted recreation programs that appeal to diverse interest groups.

1.3.4 Prioritize PLAY opportunities for all ages and abilities.

1.3.5 Prioritize placemaking strategies to create welcoming spaces that attract wide range of participants.

Figure 10.5 - Spirit League Special Programs

1   https://diversity.cornell.edu/belonging/sense-belonging

2   Parks and Recreation Inclusion Report | Research | National Recreation and Park Association (nrpa.org)

1.4 Environmental Stewardship

Parks and Recreation Departments across the country are acknowledging their role and responsibility in creating resilient and climate-positive solutions. NRPA supports this goal by identifying conservation as one of the three pillars of its mission[3]. Parks not only provide critical access and connection to nature, but they also help protect local flora and fauna and provide opportunities to address climate change impacts through green infrastructure strategies.

The Town of Apex has been working proactively to balance the impact of growth and development with strategic planning efforts to conserve and protect existing natural resources. Several town-wide efforts are in place such as outreach efforts to educate the community about solar installation, composting, recycling, and air quality, zero-waste events, and the exclusive Earthfest festival to bring like-minded groups and businesses together. Community engagement feedback revealed that the residents are interested to participate in environmental education programs. While the Town currently provides programs, there is also a need for a dedicated indoor and outdoor space to host these programs. Apex Nature Park, recognized for its park amenities set within an expansive hardwood forest, presents an opportunity to expand the nature-based recreation programs. There are several third-party certification programs such as LEED, Green Globes, Energy Star, etc. which can show Town's commitment to environmental sustainability. These certifications target various areas of the built environment including site development, architecture, operations, and human health. While it is not necessary to opt for certifications, the Town can use the rating criteria mentioned in these programs to develop sustainability initiatives. There is also an opportunity to leverage efforts by the Environmental Advisor Board, Bee City Committee, Tree Citizens Advisory Panel, and Apex Community Coalition. Through interdepartmental collaboration, partnerships, and establishing synergy in various planning efforts, the Town can leverage Parks and Recreation Department to achieve community resilience and address climate change as a public health concern[4] .
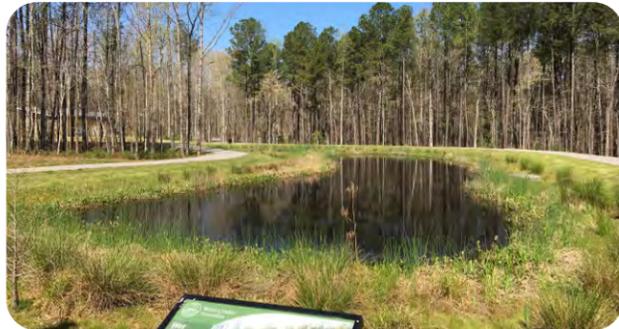
Figure 10.6 - Nature Park

PROJECT HIGHLIGHTS
> Start Design Development on the three recommended prioritized greenway corridors
> Complete Beaver Creek Corridor
> Continue the partnership with Wake County and Town of Holly Springs to complete Middle Creek Greenway Corridor

ENVIRONMENTAL STWEARDSHIP

Expand efforts to protect the natural assets and collaborate on town-wide sustainability efforts.

1.4.1 Acquire 65 ac. as conservation lands by 2031.

1.4.2 Promote environmental stewardship through park and facilities design and focus on environmentally sustainable operating practices.

1.4.3 Continue to support town-wide initiatives for energy conservation through parks and recreation

1.4.4 Focus on nature-based programming to generate environmental awareness.

3   https://www.nrpa.org/our-work/Three-Pillars/conservation/

4   https://climateforhealth.org/

Figure 10.7 - Apex Community Park Shelter
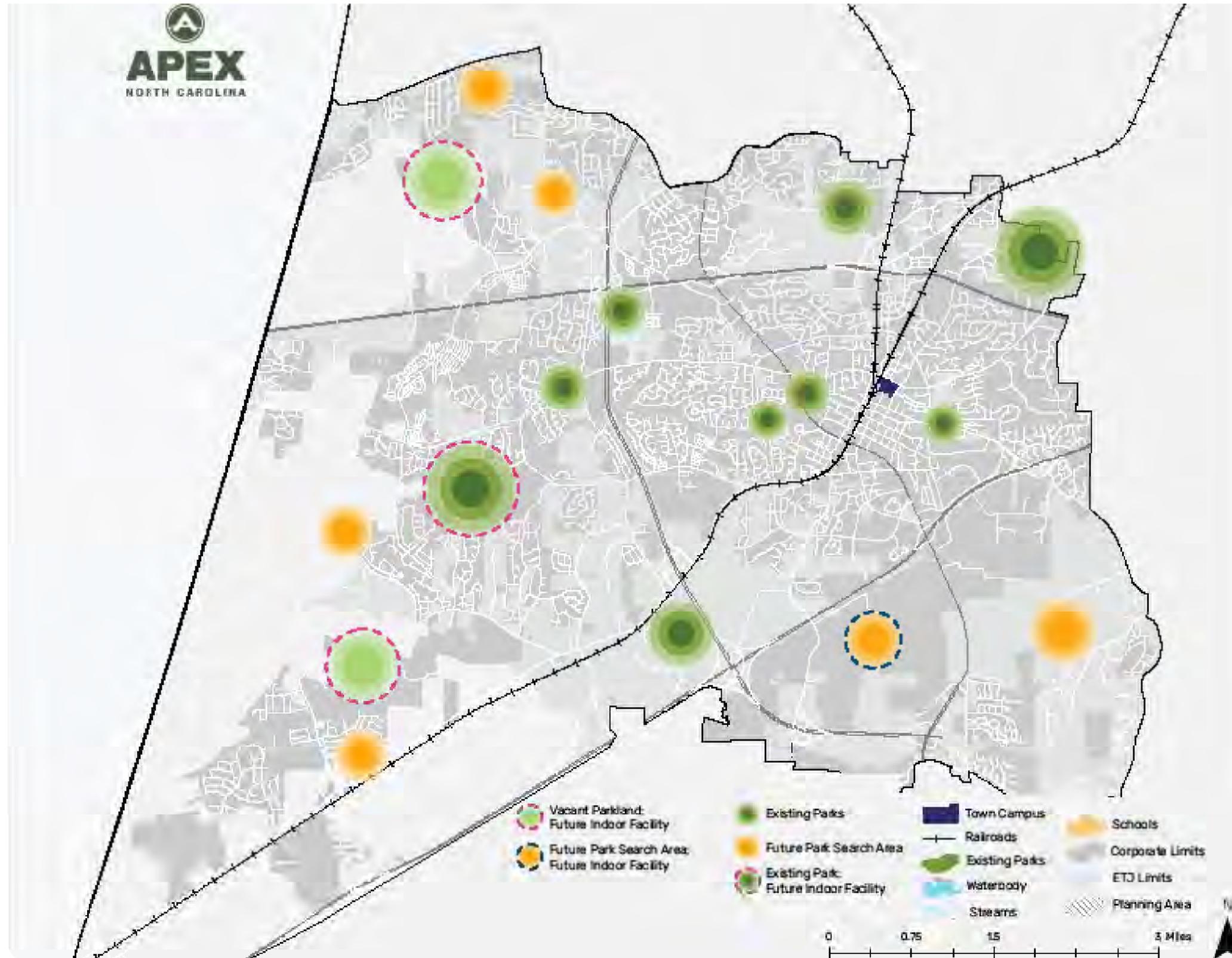
Figure 10.8 - *Park Search Areas + Future Indoor Facilities*

THEME 2 - EXPERIENCE

Experience is an instance of direct encounter, observation, or sensorial feeling that is deeply personal for an individual as well as collectively for a group of people. Parks and recreation are all about delivering positive, playful, and engaging experiences to residents through at-will activities and organized programs and events. It is important that the culture, traditions, and demographics of a community are built into delivering these experiences to the community. This helps to create a sense of ownership and connectedness amongst residents, The uniqueness or exclusiveness attracts non-residents who are not able to find similar experiences elsewhere or within proximity of where they live. Parks and recreation are also critical components of health and wellness service delivery. The COVID-19 pandemic underscored the need for parks as essential infrastructure for providing communities with places to be social, active, and connected.

Apex residents, staff, advisory board members, and elected officials unanimously agreed on creating a diversity of experiences for residents and visitors alike through unique programming and events and celebrating the cultural diversity within the community. Developing a sense of community was expressed as a strong desire as the Town continues to grow. Additionally, residents expressed the desire to use parks and recreation services to promote the importance of healthy lifestyles and physical and mental well-being.

APEXperience

UNIQUE TO APEX

Reflect on Apex's culture and history through the design of spaces that are unique, innovative, and imaginable.

SENSE OF COMMUNITY

Provide a chance for people to socialize, form friendships and discover common grounds.

HEALTH + WELLBEING

Support health and wellbeing of Apex residents through parks and recreation.

▲ Figure 10.9 - Greenway Trail

2.1 Unique to Apex

Parks have the power to transform a derelict space into a delightful, welcoming amenity that tells the story and legacy of the place. Public parks play an important role in connecting the community to its culture and history. In addition, participation in recreation programming connects and inspires people from different cultures, backgrounds, and interests. "Placemaking" is an important design strategy that can be applied to public spaces to identify and reflect the community's unique character through public art, cultural programs, and park amenities. There are multiple ways to achieve uniqueness through collaborations with community and neighborhood groups, local and culturally specific art organizations, and local artists.

The Town of Apex's more than 150 years of unique and rich history and its transformation from a small railroad town to a vibrant regionally competent[5] community needs to be acknowledged and celebrated through parks design and recreation programming. There are several unique amenities in Apex such as the downtown trackside skate park, Elevate Fitness course, and downtown public art walk, which are great examples of the Parks and Recreation Department providing on-trend amenities and programs for residents. Apex residents, staff, and elected officials unanimously agreed to develop parks, facilities, and recreation programming that tells the story of Apex to attract new users and out-of-town visitors to Apex to experience the Peak of Good Living. Additionally, the influx of new residents moving to Apex is coming from larger cities across the country and have certain expectations regarding modern and on-trend park programs and amenities. The Department needs to continue to investigate these new trends and continue to offer something new to retain the current users of the system and attract non-residents as well.

UNIQUE TO APEX

Reflect on Apex's culture and history through the design of spaces that are unique, innovative, and imageable.

2.1.1 Continue to offer arts and cultural programming to appeal to diverse interest groups and cultural backgrounds.

2.1.2 Promote "unique to Apex" theme while designing new parks and amenities.

PROJECT HIGHLIGHTS

› Depot Plaza as public space (Downtown Plan)

› Town Complex for special events
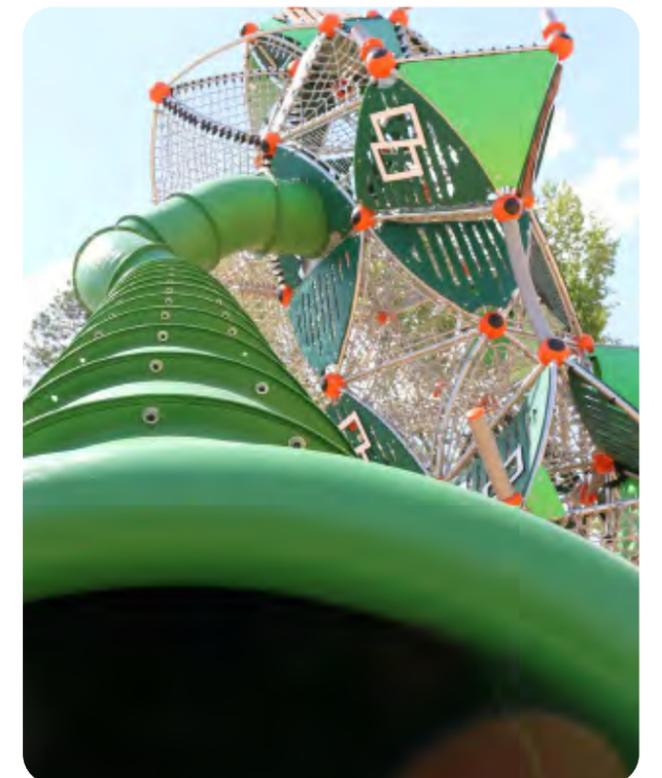
▲ 10.10 - *Pleasant Park Play Structure*

5   https://www.apexnc.org/1346/Community-Branding-Study

2.2 Sense of Community

Parks and recreation amenities are a valuable resource for the community to provide social, economic, and environmental health benefits to its residents. Sense of community is a complex concept based on four dimensions: 1. Membership; 2. Influence; 3. Integration; and 4. Shared emotional connection[6].   Membership is the feeling of being part of a group. Influence is the level of importance an individual reciprocates towards the group. Integration is the level of expectation that a person's needs are met by the group and lastly the shared emotional connection is the shared history or commonality within the group. These four dimensions connect an individual to their community, develop relationships, trust, and a sense of empowerment. Parks and recreation programs promote social interaction among residents, find common interests and build trust and respect while acknowledging differences. Special events and festivals contribute to enhancing social capital and higher social capital relates to a higher sense of community.

The Town of Apex PRCR Department holds many special events, festivals, and diverse recreation programs throughout the year that brings community together. There are also several private events that PRCR Department supports and provides resources for. There is an opportunity for the Department to strengthen the role of parks in offering social connections through design. The COVID-19 pandemic emphasized the need of flexible open spaces where friends and families could safely meet. People also used public open spaces to exercise, work, and play when indoor facilities were closed. Recognizing the historical power of parks to heal the community from the effects of the pandemic is critical in designing and developing future park facilities.

SENSE OF COMMUNITY

Provide a chance for people to socialize, form friendships and discover common grounds.

2.2.1 Provide opportunities for residents to connect with each other and encourage social interaction.
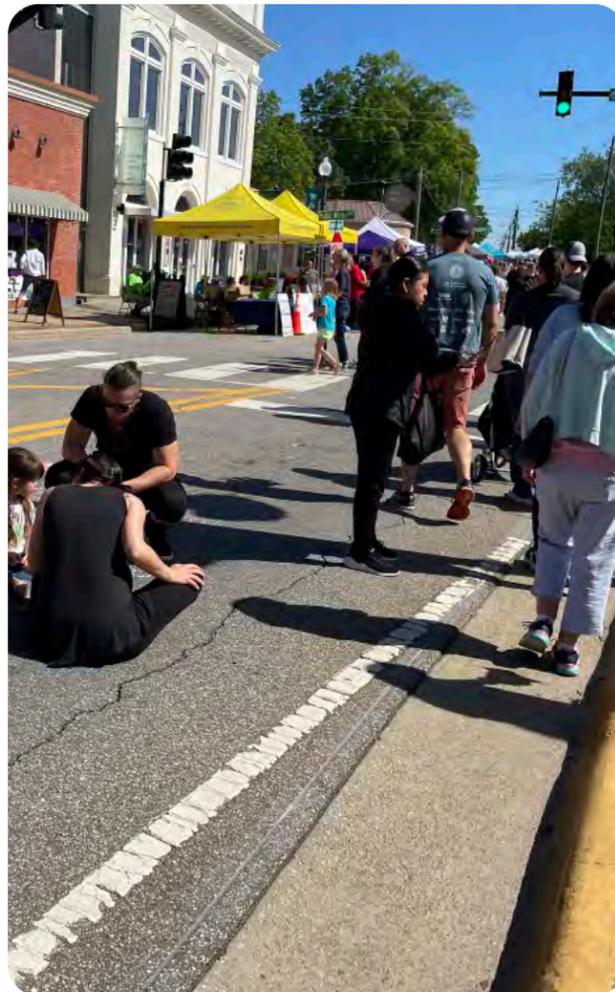
Figure 10.11 - Peakfest 2022

2.3 Health and Well-Being

Apex residents ranked fitness and wellness programs as one of the top priorities for investment and there is a town-wide consensus that parks and recreation has a positive effect on the community's health and quality of life. Parks and recreation services are increasingly being recognized as an essential infrastructure for the public health system. In addition to the traditional recreation provisions, parks and recreation departments across the country are helping address social challenges such as healthy food access, mental health, substance abuse, and social isolation[7].

NRPA has been promoting the parks and recreation services in partnerships with other community organizations as community wellness hubs are a critical need for residents to seek help in a safe environment and improve the collective social, physical, and mental health outcomes within the community.

Apex PRCR Department currently offers core programs including athletics, specialized recreation, senior programs, and an array of non-athletic programs focused on health and well-being such as Zumba, Pilates, and Yoga classes. There has been an increased desire to include more community gardens and incorporate nature-based programs. The Town should continue to take intentional actions to promote the health and well-being of the community through PRCR services.

HEALTH + WELLBEING

Support health and wellbeing of Apex residents through parks and recreation.

2.3.1 Encourage development of amenities and programs that provide physical, social, and mental health benefits.

2.3.2 Promote access to healthy lifestyle choices

PROJECT HIGHLIGHTS

› 2- new parks in the Western part of Apex
› 1- new park per Veridea Master Plan
› 2- new recreation centers in the Western part of Apex
› 1- recreation center per Veridea Master Plan
› 1- Nature Center
› Trend-setter programming
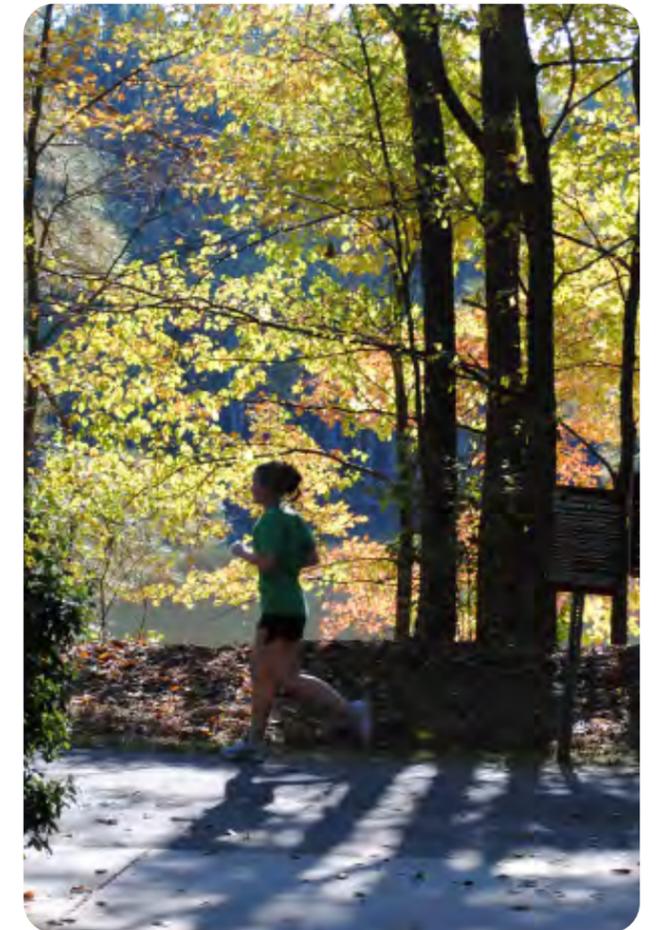
Figure 10.12 - Apex Community Park

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6   Gomez, Edwin. "Urban Parks and Psychological Sense of Community." Journal of Leisure Research 47 (3), 2015: 388–98. https://www.nrpa.org/globalassets/journals/jlr/2015/volume-47/jlr-volume-47-number-3-pp-388-398.pdf.

7   https://www.nrpa.org/contentassets/df807077b2ee43f084810f5bb4a7bde1/2021healthwellness.pdf

THEME 3 - EXCEL

To excel is to be superior in quality and performance when compared to previous data or another similar entity. Achieving excellence should be the common direction for the PRCR Department. This sentiment should be cultivated by Department leadership while training, motivating, and empowering employees to deliver outstanding services. This theme serves as framework for how the Department can operationalize excellence to deliver products, services, and experiences that users perceive to be outstanding. Particularly for the PRCR Department, excellence can be achieved in every aspect of parks and recreation through attention to:

APEXcel

OPERATIONS EFFICIENCY

Achieve organizational excellence by implementing business practices that enhance efficiency, staff satisfaction, and economic vitality.

CUSTOMER SERVICE

Provide outstanding customer service through streamlined communication and marketing efforts.

- › High quality parks and facilities
- › On-going maintenance
- › Recreation programs
- › Technology
- › Staff and operations
- › Marketing and communications
- › Partnerships

Figure 10.13 - Town Hall Campus

3.1 Operations Efficiency

The high-quality of parks and recreation system directly relates to how the department operates. Sufficient staffing and standardized policies and procedures coupled with strategic funding support are critical to achieving operational efficiencies and system-wide excellence. A growing system puts additional demand on existing staff to take on more responsibilities and work outside of their expertise resulting in staff burnout and turnovers. By investing in staff resources and empowering them to effectively manage their responsibilities, the Department can ensure staff satisfaction and high-quality service delivery. Written and adopted policies and procedures that provide qualitative and quantitative data points are essential to evaluate the successes and identify gaps. Resources and funding requests backed by data are critical for the annual operating budget and Capital Improvement Plan (CIP) budget allocations.

The PRCR Department has acknowledged the challenges of the growing community and the additional demands it places on the parks and recreation provision. The Department is working on additional staffing, pay scale restructuring, and staff investment. Additionally, the Department is working on streamlining the interdepartmental communications, and policies and procedures associated with program registration, maintenance and management, and pursuing partnerships to find alternative sources of funding. The Department desires to pursue accreditation by the Commission for Accreditation of Parks and Recreation Agencies (CAPRA) in the future. CAPRA accreditation offers many benefits to the Department and the public by validating the evidence of operations efficiency, documentation of policies and procedures, staff satisfaction and engagement, and national-level recognition for high-quality services. The national accreditation standards are available online for reference as the Department continues to implement the best practices for CAPRA compliance.

OPERATIONS EFFICIENCY

Achieve organizational excellence by implementing business practices that enhance efficiency, staff satisfaction, and economic vitality.

3.1.1 Streamline recreation program management through best practices, tracking, and fees policy updates.

3.1.2 Achieve operations efficiency through sound maintenance and management practices

3.1.3 Invest in staffing resources and staff satisfaction to achieve departmental operations efficiency.

3.1.4 Seek strategic partnerships with third party providers to expand Department's capacity to provide competitive services to residents.

3.1.5 Implement capital improvements and operations through responsible funding sources.

PROJECT HIGHLIGHTS

- › Develop partnerships
- › Additional staffing

3.2 Customer Service

The parks and recreation system is a customer-focused service. Parks and recreation departments across the country are facing challenges with budget restrictions, resource scarcity, and competition from private providers. To build a better customer experience, the agencies have to focus on customer service delivered through highly trained staff. Through effective and streamlined communication and marketing, the staff can connect with the community members with ease and provide them high quality service, so they continue to participate in and inspire others to participate as well. Additionally, leveraging technology, assessment metrics, and data to receive feedback from community members to constantly improve customer service and experience.

Apex PRCR Department needs to continue to invest in staff resources, provide ongoing training and professional development opportunities, and encourage staff engagement in various Department-wide initiatives to empower them to perform their roles and responsibilities with the highest standards. Incorporating system-wide marketing plan to reach out to new residents is critical to attracting them to recreation program participation. While residents focus on referring to social media, the town's website, and other online platforms to gain information, the Town should continue to provide flyers, brochures, and program guides at strategic community destinations such as local grocery stores, schools, libraries, etc. to reach nonusers. Finally, as the Apex community is growing increasingly diverse, it is critical for the PRCR Department to promote inclusion and acknowledge cultural diversity. To maximize participation and build trust and loyalty[8], the Department should continue to ensure that the staff projects cultural awareness and it is reflected through marketing and communication.

CUSTOMER SERVICE

Provide outstanding customer service through streamlined communication and marketing efforts.

3.2.1 Provide high quality customer service through enhanced communication and outreach.

3.1.2 Establish volunteer program to engage residents in parks and recreation services and develop a sense of ownership within the community.

PROJECT HIGHLIGHTS

› Develop fees and charges policy and include need-based component.
› Update Kelly Road Park playground as inclusive play area.
› Strategic marketing plan
› Continue website updates for program offerings
› Include resources from third party providers on the website
› Strategic recruitment to fulfill staffing needs

Figure 10.14 - Staff Work Session

8   https://www.nrpa.org/parks-recreation-magazine/2017/december/how-to-build-a-culture-of-guest-service-excellence/

TRANSFORMATIVE PROJECTS

While the detail action plan is included in the action and implementation plan chapter, the project highlights included with the recommendations are highlighted below that will transform the scene of recreation in the Town of Apex.

	GUIDING PRINCIPLE	TRANSFORMATIVE PROJECTS
EXPAND	CONNECTIVITY	› Start Design Development on the three recommended prioritized corridors. › Complete Beaver Creek Corridor. › Continue partnership with Wake County and Town of Holly Springs to complete Middle Creek Greenway Corridor.
EXPAND	RECREATION OFFERINGS	› Complete master plans for two new parks in western Apex and start construction. › Complete plans for 2- recreation centers and the nature center and start construction on at least one. › Acquire parkland per Veridea Park Master Plan for a new park and a recreation center in SE Apex.
EXPAND	CULTURE OF BELONGING	› Update fees and charges policy for programs and include need-based component. › Update Kelly Road Park playground as inclusive play area.
EXPAND	ENVIRONMENTAL STEWARDSHIP	› Establish Department goals for sustainability within the framework of Town-wide initiatives.
EXPERIENCE	HEALTH + WELL-BEING	› Develop options for in-person and online health and fitness programs. › Promote park amenities that encourage active lifestyles.
EXPERIENCE	SENSE OF COMMUNITY	› Complete renovations of Depot Plaza as downtown social hub destination.
EXPERIENCE	UNIQUE TO APEX	› Complete renovations of historic Tunstall House. › Develop town-wide Public Art Plan.
EXCEL	OPERATIONS EFFICIENCY	› Develop formal volunteer program for PRCR Department.
EXCEL	CUSTOMER SERVICE	› Develop Marketing Plan.

Figure 10.8 - Transformative Projects

11 | IMPLEMENTATION + ACTION PLAN

IN THIS CHAPTER
Introduction

Prioritization Guidelines

Implementation + Action Plan
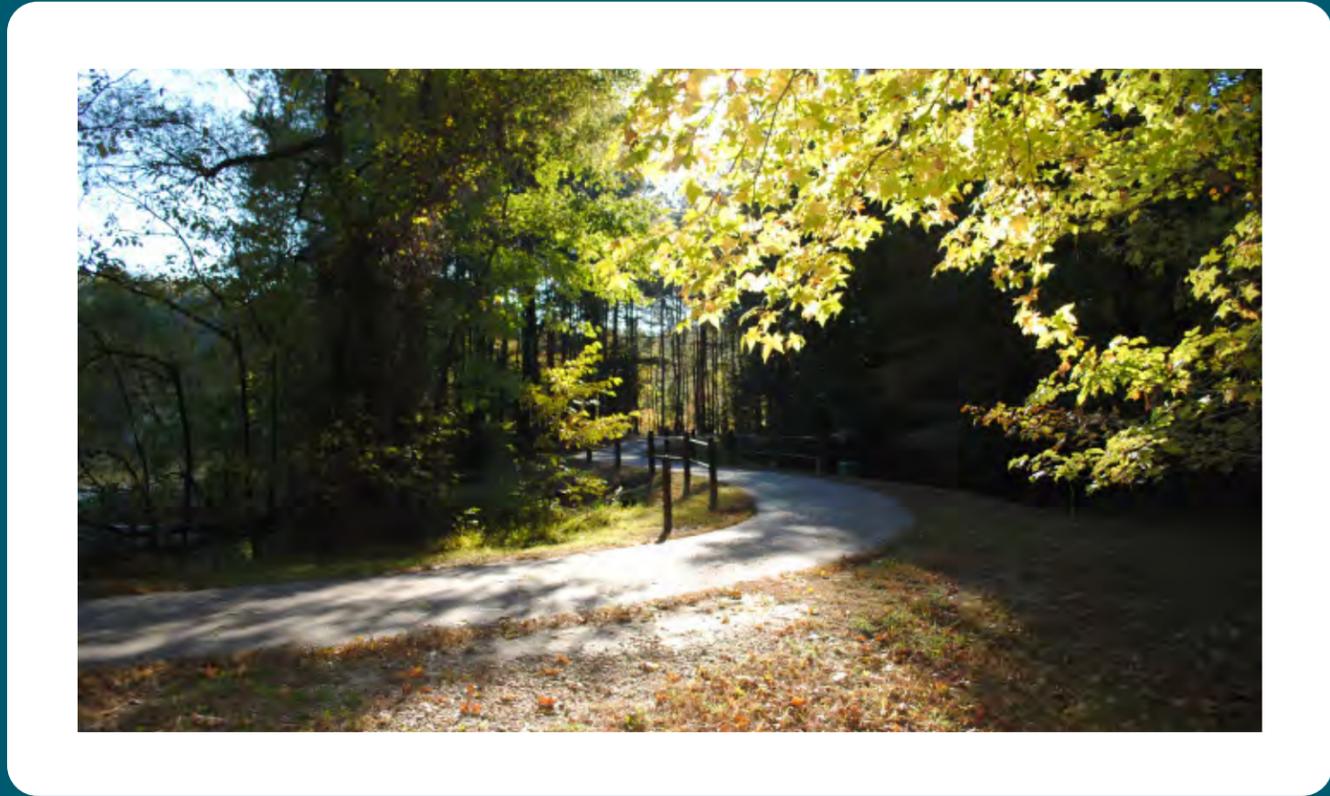
The Town of Apex Parks, Recreation, Greenways and Open Space Master Plan proposes recommendations and action items that align with the themes and guiding principles developed through a robust community and staff engagement process and based on the strong foundation of community values. The action items address enhancements to existing services and implementing new amenities and programs over the next ten-year planning horizon.

As the Town continues the implementation process over the next decade, many projects will evolve based on changing recreation trends, the availability of funding, and the needs of a growing community. When there are many opportunities and competing interests, it is difficult for decision-makers to prioritize and implement projects. Hence, this plan sets forth implementation guidelines for use as a decision-making tool for staff and elected officials. This approach informs and validates decisions through data and community values, leading to defendable projects and consensus among stakeholders.

▲ Figure 11.1- *Downtown Deport Plaza*

PRIORITIZATION GUIDELINES

The proposed prioritization guidelines for project implementation described below encompass the master plan guiding principles, community needs, and parks system advancement. There are a series of questions added to each section to help the Town make an informed decision as projects are identified or new projects emerge for implementation.

1. Guiding Principles Compatibility

This criterion will ensure that the projects considered for implementation are consistent with the guiding principles of the plan. Overlapping multiple guiding principles will generate benefits that span across the system covering all elements from environmental sustainability to economic impact. The following questions can help evaluate this criterion:

a. Does the project meet the needs of the growing community by providing recreation programs, special events, and unique amenities that are not currently available?

b. Does this project provide equitable access to parks and facilities for people of all ages and abilities and create inclusive environments for people of different cultures and ethnicities?

c. Does this project support health and well-being of the community members by providing amenities that encourage physical activity or reduce mental stress?

d. Does this project fill in the identified gaps to create a recreation system that connects key destinations within the Town via greenway trails and side paths? Does this project protect natural resources for its ecological and environmental benefits?

e. Does this project elevate the quality-of-life experience for Apex residents by strengthening the sense of community, identifying key partnerships, and achieving operational efficiency?

2. Community Needs

This criterion leverages the findings from the community engagement process undertaken during this project. Two major components of this criterion are findings from the scientific survey and the feedback received from various other groups as noted below:

a. Scientific survey PIR ratings based on the unmet needs and the level of importance given to these needs by the participants

b. Public, focus groups, and advisory commission feedback received through various platforms

The following questions can help evaluate this criterion:

1. Is this project listed on the priority investment rating scale as mentioned in the scientific survey?

2. Is this project identified as a need by various groups in the public engagement process?

3. Parks System Advancement

The parks system advancement criterion is related to providing an excellent parks and recreation service and high-quality amenities and programs by addressing the detail technical project implementation questions. These questions are divided into following three categories as follows:

1. Degree of Urgency

a. Does this project need attention to ensure public health, safety, and welfare?

b. Does this project need attention to comply with current building codes and regulations?

c. Will this project protect natural resources which otherwise may be lost if not addressed immediately?

d. Is this project a unique opportunity resulting from other projects that may be lost if not taken as priority?

Figure 11.2- *Park System Advancement*

2. Economic Impact

a. Will this project create long term operational efficiency and financial loss if not addressed promptly?

b. Does this project generate revenue for the parks and recreation department?

c. Does this project generate revenue through strategic partnerships or time sensitive grant funding opportunities?

3. Compatibility with Town policies and planning efforts

a. Is this project compatible with the Future Land Use Plan?

b. Does this project build upon other regional planning efforts to connect Apex residents to regional and state level recreation opportunities?

c. Does this project address existing gaps in the system to achieve cohesive parks and recreation system?

FROM RECOMMENDATIONS TO ACTIONS + IMPLEMENTATION

The implementation plan is considered a 10-year work plan or a road map for the Town. The framework for the implementation plan is designed to show roles and responsibilities of the staff accountable for action items, actions from elected officials, and overall documentation of implementation progress.

There are three primary pathways to implement recommendations and action items- through policy guidance (PG), Development Ordinance (DO), and identification of capital projects and associated funding mechanisms (CF). Additionally, the fourth pathway suggested for this plan is Operational Advancements (OA) for the recommendations that refer to changes or improvements in departmental operations. Each action below is supported by the types of pathways the Town needs to take to implement the same. The majority of the recommendations and action items are supported by policy guidance, followed by identification of projects that need capital funding investment. The Unified Development Ordinance is referenced where the Town has established the codes that relate to action items. Furthermore, the responsibility section notes the department group responsible for implementation and identifies other departments the PRCR Department should continue to collaborate with.

RESPONSIBLE PRCR GROUPS	TOWN DEPARTMENTS COLLABORATION OPPORTUNITIES
PRCR Administration	Town Administration
Cultural Arts	Diversity, Equity, and Inclusion (DEI Department)
Recreation Programs (includes Community Center)	Economic Development
Senior Center	Planning and Community Development
Marketing	Public Works
Athletics Programs	Transportation Engineering
Parks and Planning (includes Pleasant Park)	Water Resources
Park Operations	

STATUS DESCRIPTION	EXPLANATION
Perpetual	The action item does not have an end date. It may be currently under progress and will continue to be implemented in perpetuity of this master plan.
In Progress	The action item is currently under progress and will have a definite end date.
On Hold	The action item is on hold.
Not Started	The action item implementation has not started.
Completed	The action item implementation has been completed.

The implementation plan also includes a status update on each of the action items to keep track of the progress and remove the action items from the plan once they are completed. The status categories include Perpetual, In Progress, On Hold, Not Started, and Completed. The Town can consider developing an "implementation plan team" to ensure accountability and consistent progress over the ten-year planning horizon. The implementation team will be responsible for congruency with other town-wide planning efforts, identifying priority capital projects and funding sources, and developing annual progress reports. An annual progress report is helpful for the Department's internal operations and staff motivation as well as communicating the success to elected officials and public at large. It also sets the stage for next year's project priorities, staffing, and funding allocations. The implementation team will also take account of any emerging issues, trends, community's changing desires etc. in the annual report.

Figure 11.3- *Pleasant Park (Under Construction)*

THEMES/ GUIDING PRINCIPLES	RECOMMENDATIONS	ACTION ITEMS	ACTION PATHWAY	RESPONSIBILITY	STATUS
1. EXPAND					
1.1 Connectivity: Prioritize interconnected public realm through greenways, bikeways, and transportation.					
1.1.1	Implement the proposed greenway network plan to improve access to parks, other greenways, and other local and regional destinations.	**a.** Build additional 12 plus miles of greenways in the next ten years to achieve a minimum level of service of 0.46 miles/ 1,000 population.	PG, DO, CF	Parks and Planning, Transportation Engineering, Planning & Community Dev., Public Works	In progress
		b. Continue inter-departmental collaborations on the bike-ped plan, transportation plan, and the PRGOS Master Plan to improve system-wide connectivity, implement recommended infrastructure, amenities, and policies outlined in adopted plans.	PG	Parks and Planning and Parks, Recreation & Cultural Resources Advisory Commission	Perpetual
		c. Continue inter-jurisdictional collaborations to improve regional connectivity.	PG	Parks and Planning	Perpetual
		d. Address current gaps in the system to expand the network connectivity through side path, street side trail, and greenway development.	PG, DO, CF	Parks and Planning, Transportation Engineering, Planning & Community Dev., Public Works	Perpetual
		e. Identify 'commuter corridors' to offer regional connectivity with major employment destinations.	PG	Parks and Planning	In Progress
		f. Coordinate with NCDOT Division 5 on future STIP projects to prioritize and construct sidepaths or greenways, safe connections, and intersection treatments in roadway projects. Construct grade-separated crossings or barrier protected bike/ped lanes on bridges as a betterment on NCDOT projects.	CF	Parks and Planning, Transportation Engineering, Planning & Community Dev., NCDOT Div. 5, NCDOT IMD	Perpetual

1.1.1	Implement the proposed greenway network plan to improve access to parks, other greenways, and other local and regional destinations.	**g.** Develop a greenway work plan and construct greenway development as part of essential infrastructure development across the Town. Designate Town staff to lead implementation of plan recommendations.	PG, DO, CF	Parks and Planning, Transportation Engineering, Planning & Community Dev., Public Works	Perpetual
		h. Provide staff resources and training related to greenway infrastructure and amenities.	OA, CF	Parks and Planning, Transportation Engineering, Planning & Community Dev., Public Works	Not Started
		i. Develop funding strategies and allocate funding for greenway development annually and seek funding opportunities for right-of-way acquisitions, easement acquisitions proactively.	CF	PRCR Administration, Town Administration, Parks and Planning, CAMPO, Wake County, NCDOT IMD	Perpetual
1.1.2	Prioritize completion of greenway corridors that meet most criteria established in the prioritization matrix.	**a.** Use the prioritization criteria (Step 1: Feasibility; Step 2: Prepare cost analysis) to inform decisions regarding prioritization for project implementation.	PG	Parks and Planning	In Progress
		b. Conduct feasibility studies for the high priority greenway projects.	PG, CF	Parks and Planning, NCDOT, regional partners, adjacent municipalities	In Progress
		c. Following feasibility study completion, score high-priority greenway corridors for design development and construction funding using the prioritization criteria developed through the Master Plan update.	CF	Parks and Planning, Transportation engineering, Planning & Community Dev., Public Works	Not Started
		d. Staff should analyze budget annually using the two-step prioritization criteria.	PG, CF	Parks and Planning	Not Started
1.1.3	Encourage and support greenway use through placemaking strategies.	**a.** Use placemaking strategies to enhance user experience along greenway nodes and trail head locations.	PG, CF	Parks and Planning	Perpetual
1.1.3 (cont.)	Encourage and support greenway use through placemaking strategies.	**b.** Develop a hierarchical system of trail heads and identify amenities associated with each such as restrooms, weather shelter, parking, drinking water, public art etc.	PG, DO, CF	Parks and Planning	Not Started
		c. Provide easy access to amenities (e.g., rest rooms, drinking water, seating areas, mile markers etc.) to encourage fitness and health outcomes.	PG, CF	Parks and Planning	Not Started
		d. Develop a Greenway Maintenance & Operations Plan and allocate resources for maintenance of aging sections as part of the asset management plan.	OA, CF	Parks and Planning, Public Works, Parks Operations	Not Started
		e. Incorporate digital capabilities such as QR codes on greenway signage, bike rentals, and phone apps to encourage greenway use	PG, CF	Parks & Planning, Recreation Programs, Marketing	Not Started
		f. Facilitate and participate in programs and events such as bike rodeos, traffic gardens, and other educational programming, group walks and bike rides, nature hikes, etc. to attract new users	CF	Parks and Planning, Recreation Programs	Perpetual
		g. Ensure connectivity to internal parks trails from greenway corridors.	PG, DC, CF	Parks and Planning, Community Dev.	Perpetual
		h. Continue to implement the current wayfinding signage along new greenway corridors.	CF	Parks and Planning	Not Started
1.1.4	Evaluate the performance of the greenway network annually.	**a.** Develop performance measures and conduct annual reviews of the greenway system to understand facility needs, funding and resource needs, and usage rates.	OA	Parks and Planning	Not Started
		b. Coordinate with NCDOT IMD to participate in the Bicycle and Pedestrian Count Program.	OA	Parks and Planning	Not Started

1.	EXPAND				
1.2 Recreation offerings: Expand recreation offerings to attract new participants, retain current ones, and meet the needs of diverse and growing demographics of Apex.					
Parks and Facilities Recommendations					
1.2.1	Acquire 193 additional acres to continue to provide 10 ac/1000 pop. Level of Service standard.	**a.** Adopt the LOS standard of 10 acres/1,000 population.	PG, DO	PRCR Administration	Not Started
		b. Target land acquisition in the areas identified in the parks search areas map.	PG	Parks and Planning	Not Started
		c. Encourage developable land dedication instead of fee-in-lieu provision within the park search areas	PG	PRCR Administration, Parks and Planning	Not Started
1.2.2	Build 39,084 sq. ft. of additional indoor facility space by 2031.	**a.** Conduct feasibility studies to determine indoor programming needs at the existing undeveloped parkland and investigate partnership opportunities to allow flexibility in the number of new indoor facilities.	CF	Parks and Planning	Not Started
		b. Build Nature Center per Nature Park plans to meet demands for environmental educational programming and community space.	CF	Parks and Planning	In Progress
		c. Develop business plans prior to developing new indoor facilities to identify amenity and programming needs, staff needs, office spaces, and fees.	CF	Parks and Planning	Not Started
1.2.3	Develop the existing vacant parkland to continue to provide recreation offerings for a growing population.	**a.** Develop master plans for the two recently acquired vacant parkland properties.	CF	Parks and Planning	Not Started
		b. Complete full build out of Pleasant Park facility per approved plans.	CF	Parks and Planning	Ongoing
		c. Leverage community input, PIR findings, and level of service standards to provide additional park amenities such as new sports courts and additional playgrounds.	CF	Parks and Planning	Not Started

1.2.3 (cont.)	Develop the existing vacant parkland to continue to provide recreation offerings for a growing population.	**d.** Update current land acquisition and fee-in-lieu policy and conduct a fee study for identifying and prioritizing land acquisition for future parks and open space and recreational amenities including greenways.	PG	PRCR Administration, Parks and Planning, Athletic Programs, Recreation Programs	Not Started
		e. Consider recreation trends amongst diverse Apex populations to plan for new amenities in parks.	PG, OA	Parks and Planning	Perpetual
1.2.4	Continue to invest in existing parks and facilities to meet community priorities.	**a.** Regularly assess existing parks and facilities for renovations and park activation through new innovative amenities and programs to continue to attract visitors.	CF	Parks and Planning, Athletic Programs, Recreation Programs	Perpetual
		b. Adopt total cost of service/ownership model to anticipate capital investment and operations + maintenance costs for aging facilities.	PG	PRCR Administration, Parks and Planning	Not Started
		c. Implement the site specific and facility specific recommendations outlined in this plan to respond to diverse recreation interests.	CF	Parks and Planning	In Progress
		d. Consider revenue generating potential of facilities such as the Halle Cultural Arts Center through provision of concessions.	PG, CF	Parks and Planning, Cultural Arts	Not Started
		e. Streamline the reservation processes for sports fields to optimize their use for league play and open play.	CF, OA	Athletic Programs	Not Started
		f. Consider developing business plans for existing and future parks and facilities.	CF	Parks and Planning	Not Started
Programming Recommendations					
1.2.5	Continue to offer diverse recreation programs for growing and changing demographics of Apex.	**a.** Continue to provide existing programs: special events and festivals, senior programs, athletic sports and non-athletic fitness programs, arts, environmental education, and age-appropriate interests.	CF	Athletic Programs, Recreation Programs, Cultural Arts	Perpetual

		Action			Status
		b. Consider nation-wide recreation trends to test new programs offerings.	CF, OA	Athletic Programs, Recreation Programs	Perpetual
		c. Partner with community groups and volunteers to offer small scale, neighborhood level special programs such as arts and crafts, movies, pop-up play, and fitness programs.	CF	Recreation Programs	Not Started
1.2.6	Effectively manage and operate the core program areas.	**a.** Evaluate core program areas and individual programs annually to ensure offerings are relevant to evolving demographics and local recreation trends.	OA	Athletic Programs, Recreation Programs	Not Started
		b. Establish Program Lifecycle Analysis process to ensure balanced distribution of programs annually.	OA	Athletic Programs, Recreation Programs, Cultural Arts	Not Started
		c. Establish annual performance measures for each core program area to track program success.	OA	Athletic Programs, Recreation Programs, Cultural Arts	Not Started
		d. Develop sound fees and charges policy based on program service level.	OA	PRCR Administration, Athletic Programs, Recreation Programs, Cultural Arts	Not Started
		e. Balance cost recovery goals with seeking funding through tax dollars, grants, and sponsorships.	OA	PRCR Administration, Athletic Programs, Recreation Programs, Cultural Arts	Not Started

1.	EXPAND				

1.3. Culture of Belonging: Nurture the culture of belonging by prioritizing inclusion, diversity, equity, and accessibility.

1.3.1	Achieve equitable access to parks, facilities, and programs for all Apex residents.	**a.** Ensure equitable geographic distribution of parks and facilities throughout Apex.	PG	Parks and Planning	Perpetual

		Action			Status
1.3.1 (cont.)	Achieve equitable access to parks, facilities, and programs for all Apex residents.	**b.** Use GIS data analysis tools to identify gaps in the provision of amenities and programs and prioritize them for equitable access.	PG	Parks and Planning	Perpetual
		c. Improve accessibility to all parks and recreation facilities for all abilities.	CF, PG	Parks and Planning	Perpetual
		d. Develop need-based fees and charges policy to ensure fair and equitable access to high quality programs for all residents.	PG	PRCR Admin., Athletic Programs, Recreation Programs, Cultural Arts	Not Started
		e. Consider multi-modal transportation options such as greenway access, side paths, and public transport to improve access to parks and programs including special events.	CF, PG	Parks and Planning	In Progress
1.3.2	Support special events and programs that represent diverse cultures in Apex.	**a.** Evaluate if the needs of all segments of populations are being met through programming and marketing plan through community feedback, annual surveys, program participation evaluation forms, etc.	OA, PG	Athletic Programs, Recreation Programs, Cultural Arts, Senior Center, Marketing	Not Started
		b. Continue to expand culturally diverse programs for Town's growing population.	PG, CF	Recreation Programs, Cultural Arts	Perpetual
		c. Offer new outdoor special events and festivals to expand on the current offerings.	PG, CF	Recreation Programs, Cultural Arts	In Progress
		d. Partner with DEI Department to find common goals to reach minority and underserved population in Apex.	OA	PRCR Administration, DEI Department	Not Started
		e. Ensure diverse demographic representation on Boards and Commissions.	OA	Cultural Arts	Not Started

1.3.3	Continue to provide age targeted recreation programs that appeal to diverse interest groups.	**a.** Expand multi-generational programs to attract wider range of age groups.	CF	Athletic Programs, Recreation Programs, Cultural Arts, Senior Center	Perpetual
		b. Prioritize teen programs that are fun, educational, and encourage positive social interaction.	CF	Athletic Programs, Recreation Programs, Cultural Arts	Perpetual
		c. Provide opportunities for teens to volunteer, earn community service hours for high school and educate on professional opportunities.	CF	Athletic Programs, Recreation Programs, Cultural Arts	Perpetual
		d. Offer trending recreation programs to attract new teens to participate.	CF	Athletic Programs, Recreation Programs, Cultural Arts	Not Started
		e. Involve teens in community engagement process for designing new parks and amenities.	CF	Parks and Planning	In Progress
		f. Expand indoor and outdoor recreation opportunities for seniors through the recently developed senior center facility.	CF	Senior Center	In Progress
		g. Develop new fitness and sports programs for active adults.	CF	Senior Center	In Progress
		h. Develop virtual, after hours, and weekend programs to allow flexibility to participate.	CF	Athletic Programs, Recreation Programs, Cultural Arts, Senior Center	In Progress
		i. Evaluate youth camp options as additional facility space becomes available.	CF	Athletic Programs, Recreation Programs, Cultural Arts, Senior Center	Not Started
1.3.4	Prioritize PLAY opportunities for all ages and abilities.	**a.** Renovate existing play areas to address the needs of all ability users.	CF	Parks and Planning	Not Started
		b. Use inclusive and universal design principles to design play areas to allow use by all ages and abilities.	CF, PG	Parks and Planning	Perpetual

1.3.4 (cont.)	Prioritize PLAY opportunities for all ages and abilities.	**c.** Consider pop-up play opportunities in areas where there are gaps in providing play opportunities.	CF, PG	Parks and Planning	Perpetual
		d. Provide access to natural areas to encourage unstructured play opportunities.	CF	Parks and Planning	Not Started
1.3.5	Prioritize placemaking strategies to create welcoming spaces that attract wide range of participants.	**a.** Continue to facilitate meaningful community engagement on parks and recreation initiatives.	CF, PG	Parks and Planning	Perpetual
		b. Recognize the needs of different cultures on the use of outdoor spaces and allow flexibility in the design to address their needs.	CF, PG	Parks and Planning	Perpetual
		c. Enhance user experience and comfort by ensuring balance of sunny and shaded areas, seating options, places for socialization and solitude, access to restrooms and water, and incorporating Crime Prevention Through Environmental Design (CPTED) principles to increase the perception of safety.	CF	Parks and Planning	Perpetual

1.	**EXPAND**				
1.4 Environmental Stewardship: Expand efforts to protect the natural assets and collaborate on town-wide sustainability efforts.					
1.4.1	Acquire 65 acres as conservation lands by 2031.	**a.** Adopt the level of service standard 70:30 ratio of developed parkland to conservation lands.	CF, PG	PRCR Administration	In Progress
		b. Work with the development community to identify strategic areas for conservation land acquisition.	CF, PG	Parks and Planning, Planning and Community Development	Not Started

1.4.1 (cont.)	Acquire 65 acres as conservation lands by 2031.	c. Undertake cross-departmental efforts to develop a connected network of conservation lands to preserve ecological functionality, habitat protection, and biodiversity.	CF, PG	Parks and Planning, Planning and Community Development	Perpetual
1.4.2	Promote environmental stewardship through park and facilities design and focus on environmentally sustainable operating practices.	a. Implement best practices in environmentally sustainable site and building design and natural resources protection.	PG, CF	PRCR Administration	Perpetual
		b. Improve ecological value of parks through native vegetation, tree canopy protection, and protection of creeks and wetland areas.	PG, CF	Parks and Planning, Water Resources	Perpetual
		c. Adopt green infrastructure elements to improve water quality.	PG, CF	Parks + Planning, Water Resources	Perpetual
		d. Incorporate solar power and other renewable energy sources in the design where appropriate to provide energy sources such as charging stations, low voltage lighting, as well as park buildings.	PG, CF	Parks and Planning, Park Operations	Perpetual
1.4.3	Continue to support town-wide initiatives for energy conservation through parks and recreation.	a. Encourage and incorporate waste reduction strategies through provision of recycling and composting options.	PG, CF	PRCR Administration, Park Operations	Perpetual
		b. Develop department-wide goals to reduce resource consumption and carbon emissions.	PG, CF	PRCR Administration, Park Operations	Perpetual
		c. Continue to invest in tools and equipment that reduces dependency on petroleum products.	PG, CF	PRCR Administration, Park Operations	Perpetual
		d. Identify and implement best practices in the area of sustainable design, development, and maintenance.	PG, CF	Parks & Planning, PRCR Administration, Park Operations	Perpetual

1.4.4	Focus on nature-based programming to generate environmental awareness.	a. Promote Apex Nature Park as the hub for environmental education and nature-based programs and expand programming at other park locations.	CF, OA	Parks and Planning, Recreation Programs, Marketing	Not Started
		b. Identify potential partners in the environmental education field to develop innovative programs.	CF, OA	Parks and Planning, Recreation Programs, Marketing	Not Started
		c. Encourage nature connection and interaction through nature trails, interpretive signage, and designated areas to observe natural processes.	CF	Parks and Planning, Recreation Programs	Not Started
		d. Provide outdoor classrooms, small garden areas, and access to educational material to encourage stewardship efforts.	CF	Parks and Planning, Recreation Programs	Not Started
		e. Collaborate with private and Wake County schools to encourage students' participation in programs. Identify potential partners in the environmental education field to develop innovative programs.	CF	Parks and Planning, Recreation Programs	Not Started

2. EXPERIENCE

2.1 Unique to Apex: Reflect on Apex's culture and history through the design of spaces that are unique, innovative, and imageable.

2.1.1	Continue to offer arts and cultural programming to appeal to diverse interest groups and cultural backgrounds.	a. Continue to provide programs such as downtown sculpture walk and expand through partnerships with local arts and cultural organizations.	CF	Recreation Programs, Cultural Arts	Perpetual
		b. Diversify programs to include events focusing on music, theater, fine arts, and other forms of arts.	CF	Recreation Programs, Cultural Arts	Perpetual
		c. Consider art walks in parks and small-scale pop-up weekend performances in the downtown area to attract out-of-town visitors.	CF	Recreation Programs, Cultural Arts	Not Started

2.1.2	Promote the "unique to Apex" theme while designing new parks and amenities.	**a.** Leverage technology and innovative approaches to parks design and programming to create unique experiences for users.	CF	Parks and Planning, Recreation Programs	Not Started
		b. Implement placemaking strategies to create distinct character for each park while ensuring consistency of features that promote Apex PRCR branding.	CF	Parks and Planning	Perpetual
		c. Celebrate the history of Apex through design and programming of parks and amenities.	CF	Parks and Planning	Perpetual
		d. Prioritize preservation and restoration of Town's historic assets within the parks system, such as the Tunstall House and Depot Plaza.	CF, PG	Parks and Planning	Perpetual
		e. Develop a public arts plan and dedicate 1% of construction budget on projects to public arts initiative.	PG, DO	Town Administration, PRCR Administration, Parks and Planning, Cultural Arts	Not Started
		f. Engage community members, local artists, and arts and cultural organizations in the planning and design process of new parks and facilities.	PG	Parks and Planning, Cultural Arts	Not Started
		g. Incorporate interpretive elements within parks system that include fun and engaging storytelling components about Apex.	CF	Parks and Planning	Perpetual

2.		EXPERIENCE			
2.2 Sense of Community: Provide a chance for people to socialize, form friendships, and discover common grounds.					
2.2.1	Provide opportunities for residents to connect with each other and encourage social interaction.	**a.** Develop "social hubs" in the parks where people connect with other like-minded people (For example: Dog Park Playdates, Court Games Lessons, iPhone Photography, etc.)	CF, PG	Parks and Planning, Recreation Programs	Not Started
		b. Develop outdoor classrooms/ workstations to offer people an opportunity to "work from anywhere" and develop community spirit through spontaneous networking opportunities.	CF, PG	Parks and Planning, Recreation Programs	Not Started
		c. Develop creative seating opportunities in parks for small group gatherings and solitary places for quiet work.	CF	Parks and Planning	Not Started
		d. Partner with other organizations to provide high quality and innovative special events and programs.	CF, OA	Recreation Programs, Cultural Arts, Senior Center	Not Started
		e. Partner with HOAs to develop smaller, neighborhood scale social events.	CF	Recreation Programs, Cultural Arts	Not Started
		f. Support programs and classes led by private partners in parks and on greenways.	CF	Recreation Programs	Not Started
		g. Authorize funding for conducting programming and additional staff needed to organize events.	CF, OA	Town Administration, PRCR Administration	Not Started

2.	EXPERIENCE			
2.3 Health and Wellbeing: Promote fitness and active lifestyles to support health and well-being of Apex residents.				
2.3.1	Encourage development of amenities and programs that provide physical, social, and mental health benefits.	**a.** Develop park amenities or "wellness hubs" that support and encourage health and wellness opportunities using NRPA's new toolkit for Health and wellbeing– Community Wellness Hub development.	CF, PG	Parks and Planning, Recreation Programs	Not Started
		b. Enhance access to natural areas and connection to nature for its mental health benefits.	CF, PG	Parks and Planning	Perpetual
		c. Provide diverse fitness and wellness programs for different interest groups.	CF	Parks and Planning	Perpetual
		d. Promote multigenerational health programming such as mommy and me classes.	CF	Recreation Programs	Perpetual
		e. Leverage online platforms such as Zoom to provide flexibility for people to engage in programs at their convenience.	CF, OA	Recreation Programs	Not Started
		f. Proactively identify barriers to participate in health-related programs and prioritize removing those barriers.	CF, OA	Recreation Programs	Not Started
		g. Partner with HOAs to develop smaller, neighborhood scale social events.	CF	Recreation Programs	Not Started
		h. Develop incentives for people to engage in health and wellness programs.	CF	Recreation Programs, Athletic Programs, Senior Center	Not Started
		i. Develop partnerships with healthcare providers to support fitness and active recreation.	CF, OA	Town Administration, PRCR Administration	Not Started
2.3.2	Promote access to healthy lifestyle choices.	**a.** Leverage opportunities such as farmers markets to advocate access to healthy and local food.	PG, CF	Recreation Programs	In Progress
		b. Expand community gardening efforts to educate residents about fresh produce and 'farm to table' concept.	PG, CF	Recreation Programs	In Progress
		c. Incorporate culinary arts programs to encourage people to try new healthy food options and learn about nutrition.	CF	Recreation Programs	Not Started
		d. Promote local businesses that support local farmers through special programs and events.	CF	Recreation Programs, Marketing	Not Started

▲ Figure 11.4- *Parks and Recreation Staff - 2023*

3. EXCEL

3.1 Operations Efficiency: Achieve organizational excellence by implementing business practices that enhance efficiency, staff satisfaction, and economic vitality.

3.1.1	Streamline recreation program management through best practices, tracking, and fees policy updates.	**a.** Regularly update program offerings according to cost recovery model.	OA	Recreation Programs, Athletic Programs, Senior Center	Not Started
		b. Develop and regularly update the cost recovery goals for programs and fee structure.	OA	PRCR Administration, Recreation Programs, Athletic Programs, Senior Center	Not Started
		c. Continue to track full cost of service for programs to make informed decisions regarding pricing policy that balances market conditions and community values.	OA	Recreation Programs, Athletic Programs, Senior Center	Not Started
		d. Track community feedback on program satisfaction levels and need for new programs.	OA	Recreation Programs, Athletic Programs, Senior Center	Not Started
3.1.2	Achieve operations efficiency through sound maintenance and management practices.	**a.** Invest in high quality equipment that can withstand level of use.	CF, OA	Park Operations, Public Works	In Progress
		b. Update maintenance shops to provide adequate space for staff and storage.	OA	Parks and Planning, Park Operations	Not Started
		c. Update maintenance technology to include use of digital tools (laptops and tablets) in the field for easy documentation.	CF, OA	Park Operations	Not Started
		d. Develop a maintenance management plan to adequately forecast the true cost of delivering a high-quality park experience.	CF, OA	Park Operations	Not Started
		e. Develop key performance indicators to track the efficiency and quality of the work.	OA	Park Operations	Not Started

3.1.1	Streamline recreation program management through best practices, tracking, and fees policy updates.	**f.** Leverage the full capacity of CityWorks software and other technology to track work orders.	OA	Park Operations	Not Started
		g. Equipment replacement schedules should be revised based on hours of operations.	OA	Park Operations	Not Started
		h. Establish life cycle assessment for each park and set aside annual budget for deferred maintenance.	OA	Parks and Planning, Park Operations	Not Started
		i. Train the staff responsible for caring for the environmentally sensitive areas such as green infrastructure components, native vegetation management, and wildlife habitat areas.	OA	Park Operations	Not Started
		j. Involve maintenance staff during park planning and design process.	OA, PG	Parks and Planning, Park Operations	Perpetual
		k. Establish maintenance plan and standards for conservation lands to maintain consistency across the maintenance staff.	OA	Park Operations, Public Works	Not Started
		l. Develop a forestry plan that includes tree inventory within rights-of-ways and park properties and collaborate with Public Works.	CF	Park Operations	Not Started
3.1.3	Invest in staffing resources and staff satisfaction to achieve departmental operations efficiency.	**a.** Establish staffing requirements for full-time, part-time, and seasonal positions.	OA	PRCR Administration	In Progress
		b. Streamline inter-departmental communications for better collaborations and effective organization.	OA	PRCR Administration	In Progress
		c. Support and invest in staff development and career growth to reciprocate their investment in the department and staff retention.	OA	PRCR Administration	In Progress

3.1.3 (cont.)	Invest in staffing resources and staff satisfaction to achieve departmental operations efficiency.	**d.** Recognize and use staff's untapped talent to share responsibilities in more effective way.	OA	PRCR Administration	In Progress
		e. Offer competitive salaries and benefits for attracting new hires and staff retention.	OA	PRCR Administration	In Progress
		f. Develop team culture through training and highlight staff accomplishments.	OA	PRCR Administration	In Progress
		g. Propose new staffing positions (Volunteer Coordinator, Public Art Coordinator, Marketing Supervisor, Business Development Coordinator, Pleasant Park Operations Supervisor, Assistant Director of Parks, and GIS Data Manager)	OA	PRCR Administration	In Progress
		h. Develop a new staffing plan as the Town continues to add new facilities such as new parks and indoor recreation.	OA	PRCR Administration	Perpetual
		i. Establish a working goal to achieve CAPRA accreditation by adopting best practices that align with CAPRA standards.	OA	PRCR Administration	Not Started
3.1.4	Seek strategic partnerships with third party providers to expand Department's capacity to provide competitive services to residents.	**a.** Ensure public-private partnerships are based on fair policy agreements for both parties.	PG, OA	PRCR Administration	Not Started
		b. Establish measurable outcomes and tracking mechanisms for the services rendered through partnerships.	OA	PRCR Administration	Not Started
		c. Identify other partners in the community to support the PRCR Department's vision.	OA	All PRCR Groups	Not Started

3.1.5	Implement capital improvements and operations through responsible funding sources.	**a.** Acknowledge and construct parks as essential infrastructure element for the Town.	CF, PG	Parks and Planning	Perpetual
		b. Explore alternate funding strategies to expand and excel in providing Department services.	OA	PRCR Administration	Perpetual
		c. Leverage the Friends Groups and other non-profit organizations for fundraising and awareness.	OA	PRCR Administration	Not Started
		d. Build on the current financial strengths.	OA	PRCR Administration	Perpetual

3.	**EXCEL**				

3.2 Customer Service: Continue to provide high quality customer service through streamlined communication and marketing efforts.

3.2.1	Provide high quality customer service through enhanced communication and outreach.	**a.** Provide regular website updates to include new and upcoming events, programs and news.	OA	Marketing	Not Started
		b. Continue to update marketing plan annually to stay up to date on community needs and demographics	OA	Marketing	Not Started
		c. Leverage social network applications' capabilities for great user engagement.	OA	Marketing	Perpetual
		d. Prioritize staff job training and skill development training to enhance customer experience and empower staff to connect with diverse demographics of Apex.	OA	PRCR Administration	Perpetual
		e. Train the staff to be culturally competent and hire multilingual staff to connect with minority groups.	OA	PRCR Administration	Not Started
		f. Streamline registration and rental processes via in-person, telephone, paper forms, or online platforms.	OA	PRCR Administration	Not Started

3.1.5	Implement capital improvements and operations through responsible funding sources.	**g.** Track level of satisfaction feedback from users regularly to continuously improve customer service using online feedback surveys and survey 311 feedback system.	OA	All PRCR Groups	Perpetual
		h. Leverage relationships with partners to enhance marketing efforts through cross-promotion.	OA	PRCR Administration	Perpetual
		i. Consider establishing a marketing division to expand outreach efforts and maintain and develop new relationships with partners.	OA	PRCR Administration	Not Started
3.2.2	Establish volunteer program to engage residents in parks and recreation services and develop a sense of ownership within the community.	**a.** Establish volunteer policy that encompasses cross-departmental efforts to engage community members.	OA, PG	PRCR Administration	Not Started
		b. Establish a volunteer coordinator position.	OA	PRCR Administration	Not Started
		c. Recognize and reward volunteerism.	OA	PRCR Administration	Not Started
		d. Establish a training program for new volunteers to ensure high quality customer service experience.	OA	PRCR Administration	Not Started
		e. Achieve the goal of 12-15% of total staffing hours to supported volunteer hours and use this resource as "in-kind" indirect revenue source.	OA	PRCR Administration	Not Started

Figure 11.5 - *Summer Basketball*

Figure 11.6 -*Summer Tennis*

INTRODUCTION

The Town of Apex is a fast-growing residential community located southwest of Raleigh in Wake County, North Carolina. As the Town continues to develop, the overall demand for recreational facilities and greenways increases. This plan aims to refine bicycle and pedestrian facility recommendations for the community, which already features an extensive network as the backbone of its park system. This plan also builds on recommendations featured in previous planning efforts, including the *2019 Bike Apex*, to improve access to parks, schools, and shopping areas while focusing on environmental protection, user safety, and overall connectivity. Regional connectivity is also an important aspect of the plan as it seeks to strengthen connections to neighboring communities including the Towns of Cary and Holly Springs, along with Chatham County. Proposed greenway recommendations may also support other communities throughout Wake County, which will be linked by the county-wide greenway system. The plan will also provide a framework for Town staff, residents, developers, and regional partners to create recommendations for greenway networks, policies, and programs that guide future development and enhance quality of life for residents.

WHAT IS A GREENWAY?

A greenway is a separated linear path that provides a low-stress recreational or transportation experience for bicyclists, pedestrians, skaters, wheelchair users, joggers, and others. Greenways are also considered open space corridors that may protect environmentally sensitive lands or stream corridors. Sometimes, greenways are referred to as a trail, shared-use path, and/or multi-use path. Separated paths that are adjacent to roadway corridors are called side paths or street-side greenways and contribute to a community's comprehensive bicycle and pedestrian system. Surface materials often vary for greenways. The two most common surface types are paved and unpaved. Concrete or asphalt are typically used for paved surfaces, with boardwalks and bridges typically constructed of lumber or composite materials, and chapel hill grit or compacted natural earth surfaces on unpaved greenways.

Figure 12.1 - Image pictured to the left is the greenway at Apex Nature Park

The contents of this chapter rely on technical analysis and community engagement to provide specific and actionable answers to the questions below. The project team gathered responses from Town of Apex staff, civic leaders, residents, business owners, and visitors throughout the planning process.

Where do people want to go via greenways?
Identify key destinations that people want to bike and walk to via greenways.

How do we connect those places?
Identify the facilities, standards, and wayfinding signage to connect key locations.

How do we build the network?
Identify priority projects, costs, and funding opportunities.

How do people plan to use the greenway network?
Identify programs and policies to promote recreational opportunities and active transportation along greenways.

GUIDING PRINCIPLES OF A GREENWAY SYSTEM
There are four guiding principles of a greenway system consistently used across the industry that were considered when authoring the recommendations contained herein. Greenways should always aim to be accessible, equitable, experiential, and safe for its users. Each guiding principle is described below.

Accessibility
Accessibility generally refers to constructing greenways according to defined and approved design criteria, which ensures they can be used and enjoyed by people of all ages and ability levels. Often regulated by the Americans with Disabilities Act (ADA), such criteria tend to be technical in nature, controlling built aspects of greenways such as width, surface material, and longitudinal and horizontal slopes. More recently, the U.S. Access Board published the Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG). This document expands ADA standards to include those more specifically within the public-right-of-way.

The definition and role of accessibility has also been broadened and coined as "universal design" or "inclusive design". Inclusive expands the idea of accessibility to include the experiences of users with disabilities including mobility difficulties, as well as cognitive, visual, auditory, or other disabilities.

Equity
Equity refers to the state of being equal, impartial, and fair. In the context of greenway planning, equity can refer to social, environmental, or health equity. In all cases, greenways should aim to support all residents equally, regardless of income, gender, race, ethnicity, location, or education to improve social connection and community bonds, improve health and well-being, and preserve healthy natural resources. Investments in greenway facilities is often located near high-density population centers where access to education, employment, public transportation, and healthy food and lifestyle choices are more prevalent. Investments in greenway infrastructure should occur in a way that considers equitable access, connectivity, and experiences for vulnerable populations. An emphasis on equity should be considered while planning for both urban and rural access to bicycle and pedestrian facilities.

Experience
Experience refers to feedback from the five senses when engaging in a task or activity. Together, these forms of sensory feedback contribute to an experience. Ultimately, greenway use should result in a positive and healthy experience gained from access to the sights and sounds of nature, pleasant views, and perceived safety on the facility. Greenways should positively contribute to the overall quality of life for a community. Once constructed, greenways will become a regular part of everyday life to support short trips to nearby destinations, exercise, and connecting with nature and loved ones.

Safety
Safe greenway systems provide routes that minimize the risk of injury, danger, and crime. Safe facilities should be comfortable for users of all ages and abilities and provide opportunities for multiple means of alternative transportation (i.e., walking, jogging, hiking, and bicycling). The application of relevant design standards ensures that grades, curves, and intersections with roadways and driveways are as safe as possible along the facility.

GREENWAY BENEFITS
When a greenway system is not entirely constructed then smaller segments are typically only used for recreational purposes. Planning and completing corridors in the system increase the benefit of greenways by allowing connectivity for transportation as well as linking to the regional system. Additional benefits from greenway systems and the potential impacts of greenway development or connected facilities such as side path and trails (like the American Tobacco Trail) include the following:

› Improving bicycle and pedestrian transportation **mobility**
› Improving **health and well-being** through active living
› Protecting and enhancing the **environment**
› Improving **equity** through a fair distribution of facilities
› Creating value and generating a strong **economy**
› Promoting unity and a sense of **community**

Figure 12.2 - Greenway Benefits

These benefits, among others, can help justify greenway investments. Each benefit is outlined below with case study examples throughout the country and within the state of North Carolina.

Mobility

Greenways can be used for both recreational and transportation-related purposes. For example, greenways serve as off-road linkages to neighborhoods, as well as centers for shopping, entertainment, education, and employment and provide users with a safe and enjoyable way to travel.

More than 45 percent of all driving trips in the United States are under 3 miles, and 60 percent of trips are less than 5 miles. These trips, which could be taken by bike or on foot in 20 to 30 minutes, represent opportunities for mode shifts to biking and walking. There is a great opportunity to increase mode shares of active transportation by investing in trails. Communities that are increasing their active transportation mode shares invest in well-connected, multi-modal networks that allow people of all ages and abilities to bike and walk to their desired destinations.

Providing direct bicycle and pedestrian connections between key destinations is an effective way to attract residents and visitors to bike and walk to locations that are closer to home. The Carolina Thread Trail is a regional example of a trail system that enhances mobility options within communities. This trail helps to connect neighborhoods and adjoining communities, connects children with nature, and promotes regional thinking among its communities. It also strategically designs its trails by incorporating public art, helping its users reconnect and recognize the local history of the land it traverses.

Health + Well Being

According to the USDOT, approximately one in four adults in the United States report that they do not engage in any physical activity outside of work. Increasing access to greenways within communities benefits postive health outcomes, especially in places where elements of urban life such as traffic and pollution contribute to stress and poor health. Greenways often serve as linear parks which offer a safe and comfortable environment for active recreation such as walking, biking, jogging, or running.

When local municipalities invest in active transportation facilities like greenways, they invest in the overall health of their communities. Providing walkable and/or bike-able access to key destinations such as schools, shopping areas, jobs, neighborhoods, and recreation facilities promotes an active lifestyle and reduces dependence on automobiles. When communities provide more opportunities for exercise and recreation, it increases positive physical and mental health outcomes and reduces the risks for developing health conditions such as diabetes, cardiovascular disease, stroke, cancer, and high blood pressure (CDC).

Environment

Greenways minimize the impact on bio-diverse lands and can play an important role to improve water quality and mitigate flooding. Greenways may be used to preserve open space that provides natural buffer zones to protect streams, rivers, and water bodies from pollution run-off. According to the Federal Emergency Management Agency (FEMA), flooding causes over $1 billion in property damages every year. A benefits study written by the Rails to Trails Conservancy on trails and greenways states that these facilities can serve as natural floodplains by absorbing excess water; restoring developed floodplains to their natural state can mitigate flooding within communities. Additionally, many greenways and trails are located in forested or vegetated landscapes, and they can serve as protective buffers for wildlife habitat areas. These buffers are critical to supporting wildlife populations that require safe routes for migration.

Equity

The costs of owning, maintaining, fueling, insuring, and registering a vehicle can be a tremendous burden on many households. A bicycle, on the other hand, is a relatively inexpensive investment, and walking is free. For those who cannot afford a private vehicle, greenways offer a convenient and economical way to get around the Town and access shops, schools, and jobs. They can also help provide additional safe mobility options for those with disabilities, and connect communities underserved by pedestrian and bicycle infrastructure.

For some communities, access to outdoor recreation has not always been easy to obtain and must be reached by car. Access to outdoor recreation for parks and recreation opportunities are historically less abundant in low-income neighborhoods. Providing equitable access to all users within a community is fundamental to reducing instances of inequality. Historically, disadvantaged communities have been overlooked or ignored when it comes to planning and involving them in engagement efforts for future project connections. A study conducted by Headwater Economics found that these disparities in access to trails and parks have significant health, social, and economic implications, further exacerbating existing environmental justice concerns in these communities.

Economic Activity

Outdoor recreation opportunities such as greenways contribute to positive economic impacts to communities. For instance, property values of homes in many communities have been shown to increase. Additionally, in the real estate market, close greenway access can be an attractive amenity that increases interest in a property. Many developers also include greenways as recreational amenities in new developments. In Headwater Economics' review on the business impact of trails, the study noted that the economic impact from trails is highest when a trail is connected to local businesses that cater to trail user needs, including restaurants, grocery stores, camping, hotels, and gear stores. Since lodging typically accounts for the greatest expense during a trip, the study also found that a trail's economic impact is greatly increased when it attracts more overnight users.

At a larger scale, greenways can have impacts across an entire region. A recent study conducted by the East Coast Greenway Alliance, found that the East Coast Greenway, a trail linking cities along the eastern seaboard from Maine to Florida, generates over $90 million in revenue and taxes each year and creates 800 temporary and permanent jobs within the Triangle region of North Carolina alone.

Figure 12.3 - Beaver Creek Greenway Construction

Community

Greenways help foster a sense of place and community by connecting people and key destinations. Greenways provide opportunities for residents to gather and connect within and around the Town creating an engaged and healthy community. These facilities can help bridge the gap between cultures, support alternative modes of travel, as well as serve as neutral gathering places and recreational areas for communities. The integration and promotion of greenways within communities helps regions associate greenways with specific places. With the continued support for and request for additional and more connected greenways by Apex residents, it is clear that greenways are an integral part of and recognizable symbol of community pride.

Providing interpretive signage or public art representative of a culture may help strengthen residents' cultural awareness. In addition to celebrating the history and culture of a community, greenways can also serve as the safest place within a community. A study on crime rates along the American Tobacco Trail in Durham, North Carolina, found that less than a half percent of area crimes occurred on the trail. With regular use, proper design (i.e., featuring lighting and clear sight lines), and continued maintenance, users can remain safe and secure while on greenways within their communities. Set hours, dedicated greenway staff, guest services, facility status updates, and more help promote a safe environment for visitors utilizing greenways. Additional benefits related to greenways are provided in the graphic below.

Figure 12.4 - Additional Greenway Benefits / *Evaluating the Economic Impact of Shared Use Paths in North Carolina*

RESOURCES

Carolina Thread Trail – Trail Benefits: Connecting Communities: https://www.carolinathreadtrail.org/trail-benefits/

Center for Disease Control and Prevention – Transportation Health Impact Assessment Toolkit (2011): https://www.cdc.gov/healthyplaces/transportation/promote_strategy.htm

East Coast Greenway Alliance - The Impact of Greenways in the Triangle (2017). https://www.greenway.org/uploads/attachments/cjgqs3ffg03yyp8qitykwkvz8-triangle-impact-report.pdf

Headwater Economics – Measuring Trail Benefits: Business Impacts (2016): https://headwaterseconomics.org/wp-content/uploads/trails-library-business-impacts-overview.pdf

Headwater Economics – Measuring Trail Benefits: Equitable Access (2018): https://headwaterseconomics.org/wp-content/uploads/trails-library-access-overview.pdf

Institute for Transportation Research and Education – Evaluating the Economic Contribution of Shared Use Paths in NC (2018): https://itre.ncsu.edu/focus/bike-ped/sup-economic-impacts/

Outdoor Industry Association – The Outdoor Recreation Economy (2017): https://outdoorindustry.org/wp-content/uploads/2017/04/OIA_RecEconomy_FINAL_Single.pdf

National Association of City Transportation Officials – Equitable Bike Share Means Building Better Places for People to Ride (2016): https://nacto.org/wp-content/uploads/2016/07/NACTO_Equitable_Bikeshare_Means_Bike_Lanes.pdf

National Recreation and Parks Association – Trail Safety: The Perception and Reality: https://www.nrpa.org/parks-recreation-magazine/2014/july/trail-safety-the-perception-and-reality/

Rails to Trails Conservancy – Benefits of Trails and Greenways: https://www.railstotrails.org/resourcehandler.ashx?id=2988
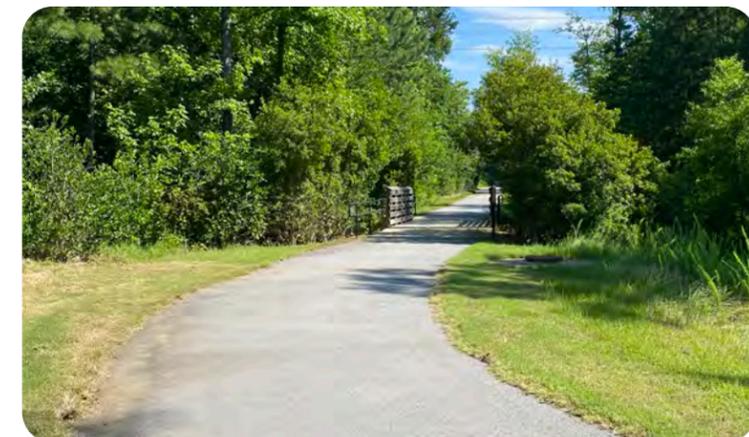
Figure 12.5 - Clark Branch Greenway

Community Context

Overview

The Research Triangle region is home to a well-developed greenway network across multiple adjacent municipalities, including Raleigh, Durham, Cary, Morrisville, Apex, and Holly Springs. The American Tobacco Trail is one major greenway located within the region. This trail forms part of a regional spine network that carries the East Coast Greenway through the area. As the southern terminus of the network, the Town of Apex's strategic location provides connections to adjacent communities of western and southern Wake County. The Town currently maintains over 25 miles of public greenway facilities. In addition to greenways, the Apex Parks, Recreation & Cultural Resources Department manages many parks, recreation programs, and a skate plaza near downtown. The Town's dedication to providing facilities for exercise and outdoor recreation makes it an attractive place for visitors to explore and for residents to enjoy daily.

Regional Context

The following map shows both existing and proposed greenway, trail, and side path facilities within the region. Three bicycle routes (not featured in the map) and two major greenways (American Tobacco Trail and East Coast Greenway) serve as regional facilities that connects Apex to Chatham, Durham, and Wake counties. Local corridors that include greenways, street-side greenways, side paths, bike lanes, trails, and sidewalks serve as critical links in local transportation networks by providing bicycle and pedestrian access to desired destinations.

APEX
NORTH CAROLINA
EXISTING & PLANNED REGIONAL NETWORK

Existing Facilities
— Greenway + Side Path
— Trail
----- East Coast Greenway
— American Tobacco Trail

Proposed Facilities
----- Greenway + Side Path
—+— Railroads
Waterbody
Streams
Apex Town Limits
Other Municipality Limits

0   0.75   1.5   3 Miles

N
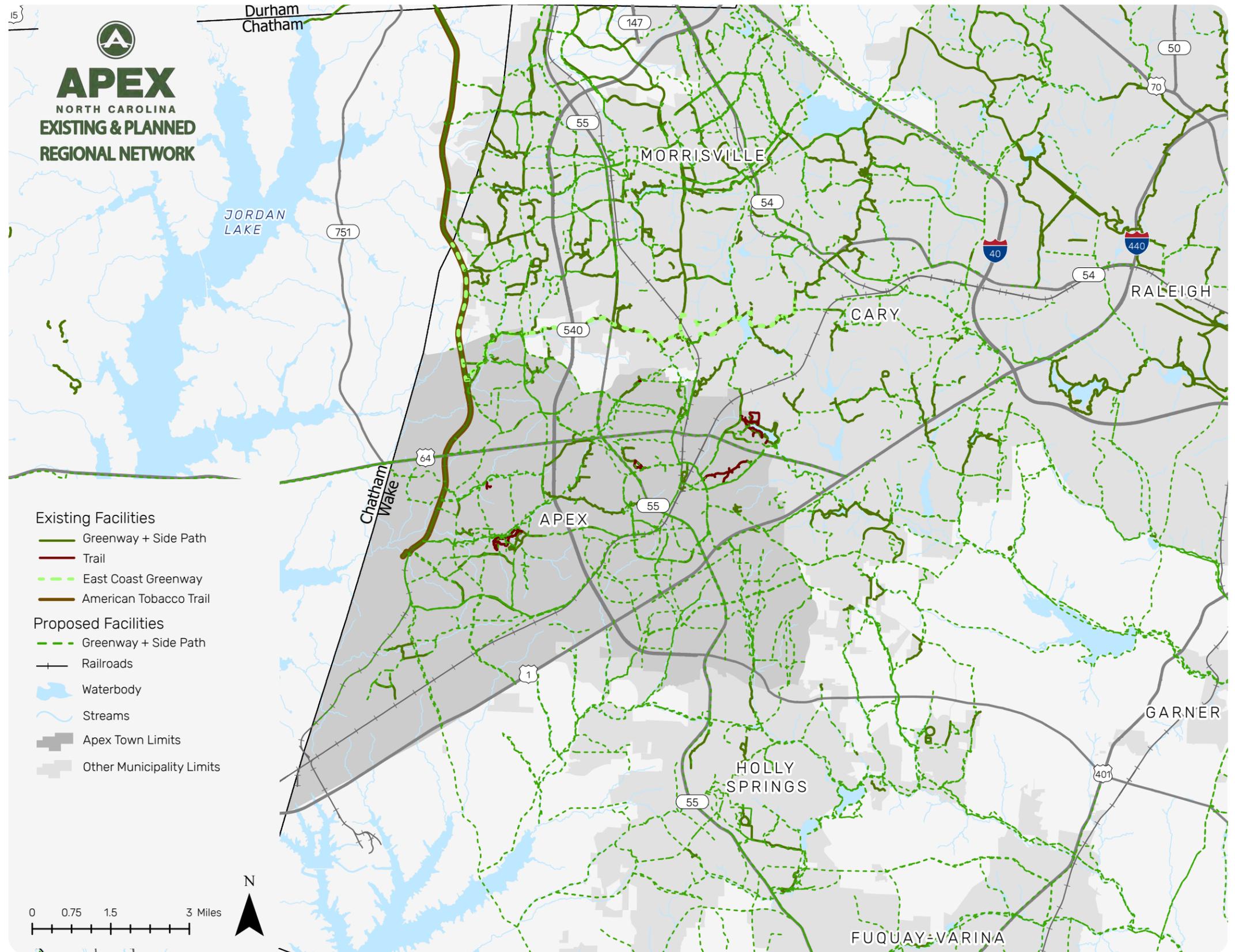
Figure 12.6- Existing + Planned Regional Network Map

EXISTING CONDITIONS
Previous Planning Efforts

The Town of Apex has prioritized multi-modal connectivity in planning efforts over the years. The following table provides a summary of key bicycle, pedestrian, and transit recommendations from previous plans and studies that are relevant to the development of the greenway and side path network recommendations in this plan.

Recommendations from Existing Plans

EXISTING PLAN/STUDY	KEY RECOMMENDATIONS TO GUIDE TOWN OF APEX GREENWAYS
Bike Apex, 2019	Bike Apex aims to improve multi-modal connectivity, accessibility, and safety by developing on-road bicycle facilities, side paths, and greenways throughout the Town. Key recommendations focus on keeping momentum on bicycle projects already in development, funding and building priority projects, building comprehensive planning projects incrementally over time, and implementing new programs that support and encourage bicycling. The plan also proposes policies that consider bicycle and greenway accommodations in new developments, guidelines for greenway and trail accessibility, developing a maintenance budget and operating plan for bicycle and greenway facilities, and programmatic recommendations to foster an active and engaged bicycle community. Priority greenway projects of the plan include completion of the Beaver Creek Greenway, Middle Creek Greenway, and Reedy Branch Greenway. Additionally, connectivity provided from side path along Apex Peakway, N Salem St/Davis Dr, and Laura Duncan Rd were identified as resident priorities. Other project recommendations include Little Beaver Creek Greenway, Lufkin Rd Greenway, Community Park Connector Greenway, NC 55/Williams St side path, Jenks Rd side path, Horton Ridge Rd side path, Salem/Old US 1 side path, Jessie Dr side path, Kelly Rd side path, Old Raleigh Rd side path, Davis Dr side path, Smith Rd side path, Reunion Creek Pkwy side path, Roberts Rd side path, Apex Barbecue Rd side path, Wimberly Rd side path, Ragan Rd side path, Mt Zion Church Rd & Hammocks Beach Trail side paths, Hughes St side path, and Morris Acres Rd.

EXISTING PLAN/STUDY	KEY RECOMMENDATIONS TO GUIDE TOWN OF APEX GREENWAYS
Advance Apex: The 2045 Transportation Plan, 2019	Advance Apex is a community-driven effort that identifies transportation needs and an updated future land use map. The proposed transportation network combines thoroughfare, collector street, and intersection improvements with multi-modal facilities such as sidewalks, bike lanes, and side paths to ensure the roadway network is accessible to all ages and abilities. Key themes from the planning process include preserving the small-town feel, integrating transportation and land use decisions, prioritizing active transportation connections, addressing congestion on major roadways, enhancing transit accommodations, and focusing on safety needs for all modes, particularly around schools. Key policy recommendations guiding plan development are continuing to enforce Unified Development Ordinance (UDO) policies. Examples include requiring sidewalks on both sides of new collector streets and thoroughfares, providing pedestrian accommodations within a ½ mile of existing and planned schools, strengthening the UDO sidewalk policy to require sidewalks on both sides of residential streets in the Transit-Oriented Development (TOD) Context area and Planned Unit Developments (PUD), requiring all new developments to include sidewalk and greenway connections to existing facilities, allowing sidewalks to be replaced with greenways and side paths, and prioritizing funding for sidewalks in Town Center and the TOD Context areas. The transportation plan incorporates proposed facilities from the Apex Bicycle Plan, which include the Beaver Creek, Middle Creek, Reedy Branch, Little Beaver Creek, Lufkin Rd, and the Community Park Connector Greenways. It also includes the Apex Peakway, NC 55/Williams St, Jenks Rd, Horton Ridge Rd, Salem/Old US 1, Jessie Dr, Kelly Rd, Old Raleigh Rd, Davis Dr, Smith Rd, Reunion Creek Pkwy, Laura Duncan Rd, Roberts Rd, Apex Barbecue Rd, Wimberly Rd, Ragan Rd, Mt Zion Church Rd & Hammocks Beach Trail, Hughes St, and Morris Acres Rd side paths.

EXISTING PLAN/STUDY	KEY RECOMMENDATIONS TO GUIDE TOWN OF APEX GREENWAYS
Apex Downtown Master Plan & Parking Study, 2019	The Apex Downtown Master Plan and Parking Study establishes a guiding vision for areas inside the Apex Peakway loop. It addresses commercial and residential markets, identifies projects for place-making and public spaces, and recommends parking strategies. The guiding principles of the plan are putting people first, celebrating Salem St, and embracing authentic Apex. Priority projects include transforming the Salem Street-scape, energizing alleys, re-purposing the Depot parking area into the premier public space downtown, attracting restaurants and local businesses to Salem St, re-envisioning the fire station site as a civic and mixed-use space, installing wayfinding signage Downtown, revitalizing Tunstall House grounds and the Strollway, making the NC 55/Salem St transit station a multi-modal and iconic gateway, and constructing 100 new housing units within a ½ mile of Downtown.

Much of the connectivity desired in and around downtown is addressed through the Advance Apex Transportation Plan's recommendations; however, this plan identifies streets which improve the overall walkability of the community. The streets that impact a 5- and 10-minute walk to Downtown will be most critical to improve connectivity in the Town's core. Streets with the potential for transformation include Center Street, Chatham Street, Saunders Street, Mason Street, and N Salem Street. |
| Wake County Southwest Area Study (SWAS), 2019 | The Wake County Southwest Area Study (SWAS) was developed by the Capital Area Metropolitan Planning Organization (CAMPO). This study is an update to the 2012 SWAS Study and identifies a cohesive transportation strategy for the growing communities of Apex, Holly Springs, Fuquay-Varina, and Angier. The guiding principles of this study focus on livability, multi-modal mobility and accessibility, and sustainability. Key recommendations for Apex include the following:
› Connections to the American Tobacco Trail that extends Beaver Creek Greenway to Apex Nature Park
› Connections to Holly Springs via the Middle Creek Greenway
› Recreational trails between Apex Community Park and Regency Park in Cary
› Greenways along Beaver Creek, Middle Creek, Swift Creek, and Williams Creek
› Complete street roadway improvements that include side paths and bike lanes along Apex Peakway, Ten Ten Rd, Green Level West Rd, Jenks Rd, Laura Duncan Rd, Old Raleigh Rd, and Richardson Rd. |

EXISTING PLAN/STUDY	KEY RECOMMENDATIONS TO GUIDE TOWN OF APEX GREENWAYS
Wake County Multi-Jurisdictional Hazard Mitigation Plan, 2015	This plan provides guidance on strategies to mitigate the impacts of natural disasters and hazards affecting communities in Wake County. Severe thunderstorms, flooding, high winds, lightning, tornadoes, hurricanes, and tropical storms are hazards of concern identified within Apex. Areas in the 100-year floodplain are especially susceptible to flooding. The following hazard mitigation recommendations were listed for the Town: › Provide stream and creek buffers and floodplain and wetland projection through the UDO › Continue to provide protection for residential areas by not allowing residential lots in the floodplain › Develop an Open Space Ordinance to protect wildlife habitat › Maintain transportation corridors within the Town for evacuation routes
2045 CAMPO-DCHC Metropolitan Transportation Plan (MTP), 2019	Key goals of the 2045 MTP focus on promoting and prioritizing multi-modal and affordable travel choices. Goals related to active transportation include increasing the safety of the transportation system for motorized and non-motorized users, enhancing the integration and connectivity of the transportation systems for all modes, increasing accessibility and mobility for people and freight, and improving the quality of life for the community. While the MTP defers to local and regional transportation plans for bicycle and pedestrian recommendations, multi-modal recommendations for Apex include the extension of the Beaver Creek Greenway from Kelly Rd to the American Tobacco Trail, greenways along Little Creek and Middle Creek from the Peakway extension towards Holly Springs, a side path along the Apex Peakway, and side path along Salem St from the Apex Peakway to Davis Dr. On-road bicycle facility recommendations include bike lanes along Old US 1 Hwy, Davis Dr, Olive Chapel Rd, Center St, and NC 55.
Wake Transit Plan, 2016	The goal of the Wake County Transit Plan is to expand and enhance transit connections throughout Wake County. Key recommendations include the following: › A 37-mile commuter rail connecting Garner, Raleigh, NCSU, Cary, Morrisville, and RTP › Bus Rapid Transit (BRT) throughout Downtown Raleigh, to Cary, to NC State, and Wake Med › 30-minute, 60-minute, and peak-only service to Wake County jurisdictions outside of Raleigh. › Transit recommendations for Apex include 60-minute, all day service between Apex and Downtown Raleigh and peak-only service between Apex and Cary, RTP, and Holly Springs. › Transit service from Apex to Cary and RTP also provides connections to Wake County BRT and Durham-Wake commuter rail corridors.

EXISTING PLAN/STUDY	KEY RECOMMENDATIONS TO GUIDE TOWN OF APEX GREENWAYS
Wake County Greenway System Plan, 2017	The vision of the Wake County Greenway Plan is to create a connected and comprehensive county-wide greenway network that enhances the quality of life for Wake County residents. Recommendations for the overall system are organized into the following project categories: Bridge the Gaps, Connect to Parks and Lakes, Connect the Communities, and Complete the System. Priority recommendations in the Bridge the Gaps category for the Town of Apex include Middle Creek Greenway from Downtown Apex to Holly Springs, Apex West Greenway from the American Tobacco Trail to the Apex Nature Park and Beaver Creek Greenway, Lower Williams Creek Greenway (Swift Creek) from Apex Community Park to Symphony Lake Greenway, and Swift Creek Greenway (Upper Williams Creek Greenway) from Fred Bond Metro Park in Cary to Old Apex Rd. Completion of the Apex Loop Greenway is a priority project in the Connect Parks and Lakes category, and the Apex Cary Greenway is a key project in the Connect the Communities category.
Great Trails State Plan, 2021	NCDOT's statewide trail plan proposes a comprehensive network of greenways and side paths to connect all 100 counties via non-motorized transportation. In Apex, the American Tobacco Trail and White Oak Creek Greenway are included in the statewide trail network as critical connections to Cary and Durham. The Plan proposes the Middle Creek Greenway to Swift Creek Connector as an opportunity to connect downtown Holly Springs to Apex and provides routes to public schools, employment centers in both Apex and Town of Cary and to the Regency Park/ Koko Booth Amphitheatre. The plan also proposes an extension along the American Tobacco Trail to connect to Fuquay Varina, and a side path along US 64 between Apex, Jordan Lake State Recreation Area, and Pittsboro. The Great Trails State network also include proposed trails along Williams Creek and Swift Creek from Apex Community Park to Clayton and the Neuse River Trail.

Policy Review

In tandem with program and infrastructure recommendations, bicycle- and walk-friendly policies improve pedestrian and bicyclist safety and enhance multi-modal accommodations in town ordinances and codes. A summary of key state and local policies that may guide or impact the development of Apex's greenway network are provided below.

EXISTING POLICIES	KEY POLICIES TO GUIDE/IMPACT TOWN OF APEX GREENWAYS
Town of Apex Unified Development Ordinance, 2000 / Codified 2021	Greenways Policies: Greenways may be credited against the requirements of Sec. 14.1 Park, Recreation, and Open Space Sites provided that such greenways are: 1. A part of the Town's Parks, Recreation, Greenways, and Open Space Master Plan. 2. Dedicated to public use and located within a 20' public greenway easement located across HOA-owned/maintained land (easement cannot be located within individual residential lots). 3. Built to meet public greenway standards per the Town of Apex Standard Specifications and Standard Details. B) Residential developments adjacent to planned/existing public greenways shall provide one (1) or more dedicated public greenway connection(s) from a public sidewalk/public multi-use path within the development to the planned/existing public greenway shown on the Town's Parks, Recreation, Greenways, and Open Space Master Plan; such greenway connections may be credited against the requirements of Sec. 14.1 provided that these greenway connections meet the standards in Sec. 14.2.1.A.2 and 3 above. Planned Unit Development (PUD-CZ) District: The development proposed in the PD Plan for PUD-CZ encourages cluster and compact development to the greatest extent possible that is interrelated and linked by pedestrian ways, bike-ways, and other transportation systems. At a minimum, the PD Plan must show sidewalk improvements as required by the Advance Apex: The 2045 Transportation Plan and the Town of Apex Standard Specifications and Standard Details, and greenway improvements as required by the Town of Apex Parks, Recreation, Greenways, and Open Space Plan and the Advance Apex: The 2045 Transportation Plan. In addition, sidewalks shall be provided on both sides of all streets for single-family detached homes.

↑ Table 12.6 – *Key Policies to Guide / impact Town of Apex Greenways*

EXISTING POLICIES	KEY POLICIES TO GUIDE/IMPACT TOWN OF APEX GREENWAYS
Town of Apex Unified Development Ordinance, 2000 / Codified 2021 (continued)	**Traditional Neighborhood District (TND-CZ):** The development proposed in the PD Plan for TND-CZ encourages cluster and compact development to the greatest extent possible that is interrelated and linked by pedestrian ways, bike-ways, and other transportation systems. At a minimum, the PD Plan must show sidewalk improvements as required by the Advance Apex: The 2045 Transportation Plan and the Town of Apex Standard Specifications and Standard Details, and greenway improvements as required by the Town of Apex Parks, Recreation, Greenways, and Open Space Plan and the Advance Apex: The 2045 Transportation Plan. **Site Plan Standards:** The development proposed in the site plan shall comply with the applicable standards of Article 7: Subdivision and Article 14: Parks, Recreation, Greenways, and Open Space, including, but not limited to, street and utility improvements and park, recreation, and open space dedication or fee-in-lieu. **Watershed Protection Overlay Districts:** Greenway/hiking trails designed, constructed, and maintained to maximize nutrient removal and erosion protection, minimize adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practical. **General Provisions:** All subdivisions shall comply with the principles, goals, and/or objectives of the 2045 Land Use Map and all other officially adopted plans and policies of the Town. Where a proposed subdivision includes any part of a transportation improvement which has been designated in Advance Apex: The 2045 Transportation Plan as provided for by NCGS 136-66.2 and 160D-501, such part of such transportation improvement shall be platted and dedicated by the subdivider in the location shown on the plan and at the width specified in the Town of Apex Standard Specifications and Standard Details. Similarly, where a proposed subdivision includes any part of a greenway as officially adopted by the Town, such part of such greenway shall be dedicated and platted by the subdivider in the location shown on the plan. Such dedication shall be in accordance with Article 14: Parks, Recreation, Greenways, and Open Space. Proposed subdivisions must comply with all requirements of this Ordinance.

EXISTING POLICIES	KEY POLICIES TO GUIDE/IMPACT TOWN OF APEX GREENWAYS
Town of Apex Unified Development Ordinance, 2000 / Codified 2021 (continued)	**Design Standards:** Internal Connectivity. All areas of a subdivision shall be internally connected by at least one (1) street located within the subdivision. Where severe topography or other physical features exist, the Director of Planning and Community Development, in conjunction with the Water Resources Director, may determine that a multi-use path or greenway be used to meet the internal connectivity requirement. If a subdivision is not connected internally, then it shall not be considered one (1) subdivision. **Private Recreation and Open Space:** A public sidewalk or public greenway shall be connected to the play lawn. **Sidewalks:** The subdivider shall construct sidewalks along both sides of all major and minor thoroughfares, all collectors, and on one side of all other streets within and bordering the subdivision property boundaries. Such sidewalks shall provide direct pedestrian connections to adjacent properties outside the subdivision. a) Consideration will be given to a greenway in lieu of some or all sidewalks within a development if an equal or better pedestrian system will be provided. b) Where street interconnectivity is not provided (such as but not limited to cul-de-sacs) within the development plan, pedestrian connections shall be constructed. The pedestrian connection requirement does not apply when a connection between two (2) cul-de-sacs would not improve connectivity with the subdivision or to surrounding areas as determined by the Director of Planning and Community Development. The pedestrian connection shall be constructed according to the following: (i) The developer shall construct the required pedestrian connections within open space or Resource Conservation Area owned by a homeowner's association, using a minimum five-(5) ft width instead of the 10-ft-wide standard section for concrete greenways; (ii) The developer shall provide a 10-ft-wide public access and maintenance easement along these paths, with the paths in the center of the easements; (iii) The open space shall be provided between lots (not within lots) to maintain pedestrian connectivity and shall include destination and directional signs; (iv) Where necessary to cross a stream or creek, the developer shall construct a bridge with a minimum path width of six (6) ft across the bridge; and (v) In low-lying areas, the Director of Planning and Community Development may require that the developer construct a boardwalk.

EXISTING POLICIES	KEY POLICIES TO GUIDE/IMPACT TOWN OF APEX GREENWAYS
Town of Apex Unified Development Ordinance, 2000 / Codified 2021 (continued)	Transportation Policies: This article ensures that adequate transportation facilities are constructed to serve new development and save unnecessary expenditures of funds by requiring the proper initial contraction of transportation networks, sidewalks, and drainage facilities and establish a procedure to assist in the funding of road improvements required by new growth in the Apex Planning Area.
NCDOT Complete Streets Policy, 2019	The NCDOT Complete Streets Policy Update was adopted by the Board of Transportation in August 2019. This policy requires NCDOT to consider and incorporate multi-modal facilities in the design and improvement of all transportation projects in North Carolina. The adopted Comprehensive Transportation Plan (CTP) is considered the controlling plan for the identification of non-motorized facilities to be evaluated as part of a roadway project. The CTP may include and/or reference locally adopted plans for public transportation, bicycle and pedestrian facilities, and greenways. Bicycle, pedestrian, and public transportation facilities that appear in the CTP directly or by reference will be included as part of the proposed roadway project, and NCDOT is responsible for the full cost of the project. Bicycle, pedestrian, and transit facilities incidental to a roadway project where a need has been identified through the project scoping process but not identified in an adopted plan may be included in the project. Inclusion of these incidental facilities requires the local jurisdiction to share the incremental cost of constructing the improvements based on population thresholds. The policy also establishes maintenance responsibility for active transportation facilities. Bicycle, pedestrian, and transit improvements inside a municipal boundary are subject to local maintenance. Projects that have not completed environmental review prior to August 2019 are subject to the Complete Streets Policy.
Wake County Land Development Ordinance, 2021	8-33 - Pedestrian, Bicycle, and Trail - The regulations of this section are intended to implement county planning objectives by promoting pedestrian and bicycle mobility, as well as recreational opportunities for county residents. Different requirements and standards apply in Short-Range Urban Services Areas, Long-Range Urban Services Areas, and Non-Urban Areas in recognition of the different physical and built environments that exist throughout Wake County.

EXISTING POLICIES	KEY POLICIES TO GUIDE/IMPACT TOWN OF APEX GREENWAYS
Wake County Land Development Ordinance, 2021 (continued)	Short-Range Urban Service Areas: (A) Pedestrian Improvements: (1) When required - Within the Short-Range Urban Services Area, pedestrian improvements must be provided within the right-of-way of collector and thoroughfare roads whenever: (a) Such improvements are shown on or otherwise required by the Transportation Plan; (b) The subject subdivision is located within one and one-half miles of an existing or proposed school; (c) The subject subdivision is located within one mile of an activity center designated on the Land Use Plan; (d) The subject subdivision is located within one-half mile of an existing or proposed park, library or other public facility that can be reasonably expected to generate pedestrian traffic; or (e) The subject subdivision is adjacent to another subdivision or development with pedestrian routes that could be readily connected to similar improvements within the subject subdivision. (B) Off-Road Trail Improvements: (1) When required - Within the Short-Range Urban Services Area, off-road trail improvements must be provided whenever: (a) Such improvements are shown on or otherwise required by the Transportation Plan and/or the Consolidated Open Space Plan; (b) The subject subdivision has access to or is adjacent to existing or designated greenway corridors, in which case, access to such corridors must be incorporated into the overall subdivision design; or (c) The subject subdivision is adjacent to another subdivision or development that includes off-road trail improvements that could be readily connected to similar improvements within the subject subdivision. Long-Range Urban Service Areas: (A) Pedestrian Improvements: (1) When Improvements May Be Required - Within the Long-Range Urban Services Area, the Planning Director is authorized to require that developers provide pedestrian improvements within the right-of-way of collector and thoroughfare roads whenever:

EXISTING POLICIES	KEY POLICIES TO GUIDE/IMPACT TOWN OF APEX GREENWAYS
Wake County Land Development Ordinance, 2021 (continued)	(a) Such improvements are shown on or otherwise required by the Transportation Plan; (b) The subject subdivision is located within 1.5 miles of an existing or proposed school; (c) The subject subdivision is located within one mile of an activity center designated on the Land Use Plan; (d) The subject subdivision is located within one-half mile of an existing or proposed park, library or other public facility that can be reasonably expected to generate pedestrian traffic; or (e) The subject subdivision is adjacent to another subdivision or development with pedestrian routes that could be readily connected to similar improvements within the subject subdivision. (2) When Improvements May Not Be Required - (a) Within the Long-Range Urban Services Area, bicycle improvements within the right-of-way of collector or thoroughfare roads may not be required if the Planning Director determines that the provision of such improvements will not provide needed linkages or connections to existing or planned bicycle improvements. (b) The Planning Director may not require any combination of pedestrian, bicycle or off-road trail improvements that would constitute more than ten percent of the allowable impervious coverage of the subject subdivision, calculated on the basis of the impervious surface area allowed without provision of storm water management devices. (B) Off-Road Trail Improvements: (1) When Improvements May Be Required - Within the Long-Range Urban Services Area, the Planning Director is authorized to require that developers provide off-road trail improvements whenever: (a) Such improvements are shown on or otherwise required by the Transportation Plan and/or the Consolidated Open Space Plan; (b) The subject subdivision has access to or is adjacent to existing or designated greenway corridors, in which case, access to such corridors must be incorporated into the overall subdivision design; or (c) The subject subdivision is adjacent to another subdivision or development that includes off-road trail improvements that could be readily connected to similar improvements within the subject subdivision. (2) When Improvements May Not Be Required (a) Within the Long-Range Urban Services Area, off-road trail improvements may not be required if the Planning Director determines that the provision of such improvements will not provide needed linkages or connections to existing or planned trail improvements.

EXISTING POLICIES	KEY POLICIES TO GUIDE/IMPACT TOWN OF APEX GREENWAYS
Wake County Land Development Ordinance, 2021 (continued)	(b) The Planning Director may not require any combination of pedestrian, bicycle or off-road trail improvements that would constitute more than ten percent of the allowable impervious coverage for the subject subdivision, calculated on the basis of the impervious surface area allowed without provision of storm water management devices. (c) Off-road trail improvements may not be required in combination with pedestrian improvements within the right-of-way of collector and thoroughfare roads. Non-Urban Areas: 1. Pedestrian Improvements Not Required - Pedestrian improvements within the right-of-way of collector and thoroughfare roads are not required within Non-Urban Areas. 2. Off-Road Trail Improvements: (1) When Improvements May Be Required - Within the Non-Urban Area, the Planning Director is authorized to require that developers provide off-road trail improvements whenever: (a) Such improvements are shown on or otherwise required by the Transportation Plan and/or the Consolidated Open Space Plan; (b) The subject subdivision has access to or is adjacent to existing or designated greenway corridors, in which case, access to such corridors must be incorporated into the overall subdivision design; or (c) The subject subdivision is adjacent to another subdivision or development that includes off-road trail improvements that could be readily connected to similar improvements within the subject subdivision. (2) When Improvements May Not Be Required (a) Within the Non-Urban Area, off-road trail improvements may not be required if the Planning Director determines that the provision of such improvements will not provide needed linkages or connections to existing or planned trail improvements. (b) The Planning Director may not require any combination of pedestrian, bicycle or off-road trail improvements that would constitute more than ten percent of the allowable impervious coverage for the subject subdivision, calculated on the basis of the impervious surface area allowed without provision of storm water management devices.

EXISTING POLICIES	KEY POLICIES TO GUIDE/IMPACT TOWN OF APEX GREENWAYS
Wake County Land Development Ordinance, 2021 (continued)	Maintenance - All streets, sidewalks, greenways, or other travel ways must be kept free from mud, dirt, dust, or other material that may create a hazard to public safety or cause the travel way to be unreasonably muddy, as determined by the County.

▲ Figure 12.7 - *Pedestrians walking along the greenway, Apex, NC*

EXISTING CONDITIONS ANALYSIS

Facility Types

The projects recommended in this chapter represent various facility types. Each facility is briefly described below. Additional information regarding the design of these facilities is presented in the Recommendations Section towards the end of this chapter (includes bridges and boardwalks).

Sidewalk

Sidewalks include the portion of a street or highway right-of-way, beyond the curb or edge of roadway pavement, which is intended for use by pedestrians. Sidewalks are generally narrower than paved trails and are usually constructed of concrete pavement or pavers.

Side Path

Side paths should be designed to meet Public Right-of-Way Accessibility Guidelines (PROWAG) standards. These bidirectional, shared-use paved surface parallel the roadway. These provide a high-quality experience for users who are not comfortable in using on-road facilities especially in heavy traffic environments. They are physically separated from the road but still located within the roadway right-of-way. Planting strips may be placed between the facility and the roadway to separate users from motorized traffic on the adjacent roadway. A planting strip width may be reduced in highly constrained areas where curb and gutter are present.

Greenway

A greenway is a bidirectional, shared-use paved surface that are typically found in parks, and along creeks and utility corridors where there are few conflicts with motorized vehicles. These separated linear paths provide a low-stress recreational or transportation experience for users. Greenways are also considered open space corridors that may protect environmentally sensitive lands or stream corridors. Sometimes, greenways are referred to as a trail, shared-use path, and/or multi-use path. Separated paths that are adjacent to roadway corridors located within wide streetscape buffers in the rural areas of Town are known as street-side greenways and contribute to a community's comprehensive bicycle and pedestrian system. Surface materials often vary for greenways.

Street-Side Greenway

A street-side greenway is a meandering bidirectional shared-use paved surface along a roadway that provides a travel area for cyclists and pedestrians within a widened streetscape buffer. Street-side greenways are typically located outside of the road right-of-way or setback at least five feet from the roadway.

Material and Design Considerations for All Facilities

Paved facilities, whether asphalt or concrete, generally require less long-term maintenance than unpaved facilities and are typically eligible for a wider variety of available funding sources. Paved facility surfaces also improve accessibility for users of all ages and abilities. Furthermore, boardwalk and bridge decks, can be constructed of concrete with a textured surface to both reduce the risk of slips and falls and minimize long-term maintenance costs when compared to wooden decking. Shoulders or shy zones should be kept clear of any obstacles to ensure the full facility width remains usable.

Existing Greenways

The existing greenway network within the Town of Apex consists of greenway segments that are spread out across the Town. Many segments are in stream corridors or alongside roadways. While several sections have been constructed in recent years by new developments on the edge of the municipal boundary, overall connectivity remains low due to gaps in the network. The American Tobacco Trail, a natural surface greenway located on a former rail bed, terminates at Apex's western edge, and serves as a popular connector to Cary and Durham. Together, the White Oak Creek Greenway and the American Tobacco Trail form part of the East Coast Greenway in the northwest section of Town. The following map shows the existing greenways, side paths, and sidewalks (that provide connectivity along a corridor only) within the Town of Apex. Privately-owned trails are also included in the map. Some of the projects contain multiple facility types that are noted on the left side of the map.

APEX
NORTH CAROLINA
EXISTING GREENWAYS NETWORK

GREENWAYS, SIDEWALKS, AND SIDE PATHS

1 - Ambergate Station Side Path
2 - American Tobacco Trail
3 - Apex Barbecue Rd Side Path
4 - Apex Community Park Trail
5 - Apex Peakway Side Path
6 - Arcadia Greenway
7 - ATT-Smith Farm Connection*
8 - ATT Access
9 - Beaver Creek Commons Dr Side Path**
10 - Beaver Creek Greenway**
11 - Beckett Crossing Greenway
12 - Buckhorn Preserve Greenway
13 - Castleberry Trails Greenway
14 - Charleston Village Greenway
15 - Clark Branch Greenway
16 - Community Lake Trail
17 - Community Park Connector
18 - Creekside Landing Dr Side Path
19 - Crestmont Sidewalk Connection
20 - Deer Creek Greenway
21 - Downtown Strollway**
22 - Edgewater Pedestrian Spur
23 - Evans Rd Side Path
24 - Gartrell Way Side Path
25 - Green Level Church Rd Side Path
26 - Greenmoor Greenway*
27 - Haddan Hall Lake Trail
28 - Haddan Hall Greenway**
29 - Horton Ridge Blvd Side Path
30 - Humie Olive Rd Side Path
31 - Hunter Street Park Trail
32 - Jenks Rd Side Path
33 - Jordan Manors Greenway*
34 - Jordan Pointe Blvd Side Path
35 - Jordan Shires Dr Side Path
36 - Kelly Rd Side Path
37 - Laura Duncan Rd Side Path
38 - Little Beaver Creek Greenway*
39 - Meridian at Nichols Plaza Greenway Spur
40 - Middle Creek Greenway*
41 - Middleton Greenway
42 - Milano Ave Side Path
43 - Milano Connector
44 - Miramonte Greenway, Section B Access
45 - N Salem St Side Path
46 - Nature Park Side Path
47 - Nature Park Trail
48 - Oak Pointe Greenway*
49 - Old Raleigh Rd Side Path
50 - Olive Chapel Side Path
51 - Pine Plaza Dr Side Path
52 - Ragan Rd Side Path
53 - Reedy Branch Greenway
54 - Reunion Pointe Access
55 - Richardson Rd Side Path
56 - Roberts Rd Side Path
57 - Roosondall Trail
58 - Salem Pond Park Trail
59 - Seagroves Neighborhood Farm Loop Trail
60 - Shepherds Vineyard
61 - Sutton Place Greenway
62 - Sweetwater Stair Access
63 - Swift Creek Greenway*
64 - The Reserve at Mills Farm Spur
65 - Turner Pines Dr Side Path
66 - White Oak Creek Greenway
67 - Wimberly Rd Side Path

* Segment contains Side Path
** Segment contains Sidewalk

Existing Facilities

- East Coast Greenway
- American Tobacco Trail
- Greenway
- Side Path
- Sidewalk (Greenway)
- Trail
- Private Trail
- Town Campus
- Railroads
- Existing Parks
- Waterbody
- Streams
- Schools
- Corporate Limits
- ETJ Limits
- Planning Area

0   0.5   1 Mile

N

▲ Figure 12.8 - Existing Greenways Network Map

Planned Greenways

The planned greenways displayed on the following map shape a comprehensive active transportation network within the Town of Apex. *Bike Apex*, *Advance Apex*, the *Wake County Greenway System Plan*, and the *Great Trails State Plan* informed many of the planned facilities highlighted on this map. Several side path and greenway facilities are strategically co-located within easements (highlighted in yellow or pink). It is important to note that some of the projects contain multiple facility types and these are noted on the left side of the map. The planned greenways help make north-south and east-west connections throughout the Town, as well as fill in network gaps between existing active transportation infrastructure. In addition, the planned facilities tie into schools, parks, Downtown Apex, and various neighborhoods to provide connectivity to a variety of key destination for visitors and residents to access via the greenway network. Several of the proposed greenway and side path segments cross the municipal boundary to make connections to adjacent communities.

APEX
NORTH CAROLINA
PLANNED GREENWAY NETWORK

GREENWAYS, SIDEWALKS, AND SIDE PATHS

1 - Ambergate Station Side Path
2 - American Tobacco Trail
3 - Apex Barbecue Rd Side Path
4 - Apex Community Park Trail
5 - Apex Peakway Side Path
6 - Arcadia Greenway
7 - ATT-Smith Farm Connection*
8 - ATT Access
9 - Beaver Creek Commons Dr Side Path**
10 - Beaver Creek Greenway**
11 - Beckett Crossing Greenway
12 - Buckhorn Preserve Greenway
13 - Castleberry Trails Greenway
14 - Charleston Village Greenway
15 - Clark Branch Greenway
16 - Community Lake Trail
17 - Community Park Connector
18 - Creekside Landing Dr Side Path
19 - Crestmont Sidewalk Connection
20 - Deer Creek Greenway
21 - Downtown Strollway**
22 - Edgewater Pedestrian Spur
23 - Evans Rd Side Path
24 - Gartrell Way Side Path
25 - Green Level Church Rd Side Path
26 - Greenmoor Greenway*
27 - Haddan Hall Lake Trail
28 - Haddan Hall Greenway**
29 - Horton Ridge Blvd Side Path
30 - Humie Olive Rd Side Path
31 - Hunter Street Park Trail
32 - Jenks Rd Side Path
33 - Jordan Manors Greenway*
34 - Jordan Pointe Blvd Side Path
35 - Jordan Shires Dr Side Path
36 - Kelly Rd Side Path
37 - Laura Duncan Rd Side Path
38 - Little Beaver Creek Greenway*
39 - Meridian at Nichols Plaza Greenway Spur
40 - Middle Creek Greenway*
41 - Middleton Greenway
42 - Milano Ave Side Path
43 - Milano Connector
44 - Miramonte Greenway, Section B Access
45 - N Salem St Side Path
46 - Nature Park Side Path
47 - Nature Park Trail
48 - Oak Pointe Greenway*
49 - Old Raleigh Rd Side Path
50 - Olive Chapel Side Path
51 - Pine Plaza Dr Side Path
52 - Ragan Rd Side Path
53 - Reedy Branch Greenway
54 - Reunion Pointe Access
55 - Richardson Rd Side Path
56 - Roberts Rd Side Path
57 - Roosondall Trail
58 - Salem Pond Park Trail
59 - Seagroves Neighborhood Farm Loop Trail
60 - Shepherds Vineyard
61 - Sutton Place Greenway
62 - Sweetwater Stair Access
63 - Swift Creek Greenway*
64 - The Reserve at Mills Farm Spur
65 - Turner Pines Dr Side Path
66 - White Oak Creek Greenway
67 - Wimberly Rd Side Path

* Segment contains Side Path
** Segment contains Sidewalk

Existing Facilities
— Greenway
— Side Path
— Sidewalk (Greenway)
— Trail
— Private Trail
··· East Coast Greenway
— American Tobacco Trail

Proposed Facilities
--- Greenway
--- Side Path
--- Street-Side Greenway
— Utility Easement
— Greenway Easement
◆ Pedestrian Crossing

■ Town Campus
+ Railroads
■ Existing Parks
■ Waterbody
~ Streams

■ Schools
■ Corporate Limits
■ ETJ Limits
▦ Planning Area

0   0.5   1 Mile

N

Figure 12.9 - Planned Greenway Network Map

Destinations

Greenways can be strategically placed to connect users to various key destinations within their communities. Key destinations within Apex that are highlighted on the following map include commercial areas, libraries, hospitals, subdivisions (over 100 lots), Town Campus, parks, and schools. In addition, the Town's employment density is mapped to show major employers that employ 100 to 750 or more employees.

Apex Community Park and Apex Nature Park are two large recreational areas in the Town that support facilities (e.g., trails, side paths, and greenways) for active transportation. Commercial centers on either side of Claude E. Pope Memorial Highway (US HWY 1) provide the highest concentration of existing employment opportunity in Town but do not have access to existing greenways in the immediate area. Town Campus and commercial centers along W Williams Street (HWY 55) also employ more than 500 people.

Existing Facilities

- ⋯⋯ East Coast Greenway
- ━━ American Tobacco Trail
- ━━ Greenway
- ━━ Side Path
- ━━ Sidewalk (Greenway)
- ━━ Trail
- ━━ Private Trail

Large Employers

- ○ 100 - 150 Employees
- ○ 151 - 250 Employees
- ○ 251 - 500 Employees
- ○ 501 - 750 Employees
- ○ Over 750 Employees

- 🛍 Commercial Areas
- 📖 Libraries
- Ⓗ Hospitals
- Subdivisions over 100 lots

- Town Campus
- ┼ Railroads
- Existing Parks
- Waterbody
- Streams

- Schools
- Corporate Limits
- ETJ Limits
- Planning Area

0   0.5   1 Mile

Figure 12.10 - Destinations Map

Existing Transit

Through the implementation of greenway projects recommended in this plan, the Town of Apex could support multi-modal travel options for its community. Multi-modal travel involves a combination of modes or services which could be supported through the use of active transportation facilities (e.g., greenway, side paths, and sidewalks) in tandem with transit.

If implemented, several side path and greenway projects recommended in this plan could help tie into the existing transit stop network within the Town. GoApex Route 1 recently launched its fixed route service in July 2022. The service is free to the public, and provides hourly trips from 6 AM to 10 PM, Monday through Saturday. The Town has partnered with GoCary to provide this service. Bicycle racks are provided on the GoApex Route 1 buses and at some bus stops. In addition to the fixed route service, the Town partnered with GoWake Access to provide complementary ADA paratransit service for individuals with disabilities, called GoApex Door to Door.

Outside of the local transit service there are also several regional transit routes that service Apex. These include GoCary Apex-Cary Express (ACX), GoTriangle Route 305 (Raleigh to Apex to Holly Springs), and GoTriangle Route 311 (Apex to RTP - currently not in service).

As displayed in the following map, there are two Park & Ride lots located within the Town (Lake Pine Plaza and S Hughes St at Williams St). Greenway and or side path connections to these lots could serve as safe, off-road facilities for riders to access the Park & Ride lots.
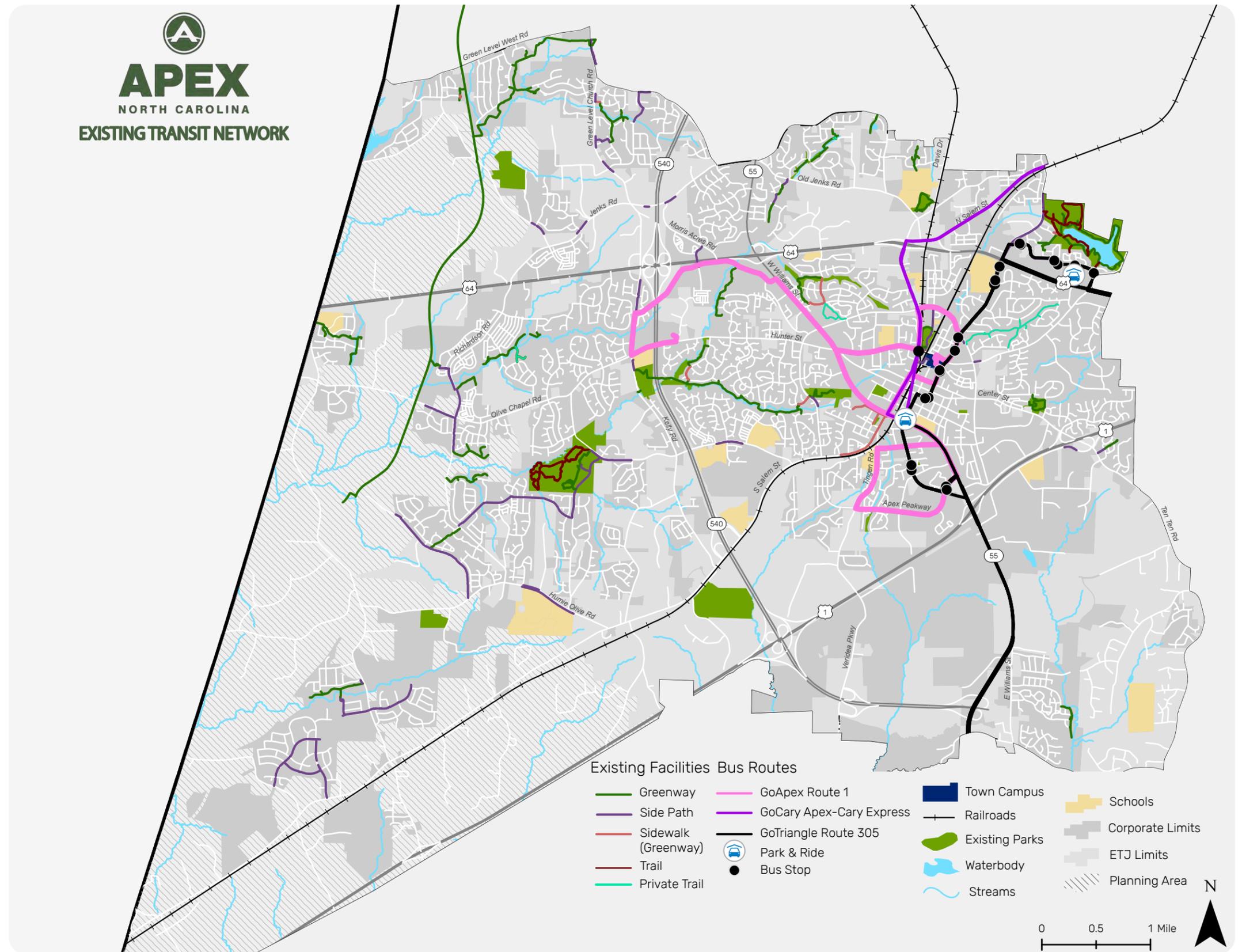
Figure 12.11 - Existing Transit Network Map

Bicycle + Pedestrian Crashes

Bicycle and pedestrian crash data can be used to identify locations of concern within the Town that may benefit from safety improvements. Crosswalks and rapid flashing beacons can serve as intersection improvements. The installation of new facilities like greenways and side paths can serve as off-road facilities that separate users from the roadway. The combination of these improvements provides users with safer and more comfortable experiences while utilizing these facilities.

The following map displays all pedestrian and bicycle crashes that occurred within the Town of Apex between 2007 and 2020. This data comes from police-reported bicycle-motor vehicle and pedestrian-motor vehicle collisions that occurred on the public roadway network and are documented by NCDOT. This data does not contain crashes occurring off the roadway, such as in parking lots, driveways, private roads, yards, alleys, and other open areas.

Crashes are symbolized on the map by injury type including fatal and non-fatal incidents. Four fatalities occurred within the Town; three pedestrians died, and one bicyclist died. Two crashes resulted in deaths along the railroad that runs parallel with S Salem Street. One pedestrian died at the intersection of US 1 and NC 540, while another passed away on NC 55 between Old Jenks Road and Morris Acres Rd. Improvements in infrastructure, as well as the implementation of policies and programs related to pedestrian and bicyclist safety may help reduce the crash rate within the Town.

The Town of Apex adopted a Vision Zero Action Plan in 2022. The purpose of this action plan is to achieve the goal of zero fatalities on Apex roadways by 2035.

APEX
NORTH CAROLINA
BICYCLE & PEDESTRIAN CRASHES

GREENWAYS, SIDEWALKS, AND SIDE PATHS

1 - Ambergate Station Side Path
2 - American Tobacco Trail
3 - Apex Barbecue Rd Side Path
4 - Apex Community Park Trail
5 - Apex Peakway Side Path
6 - Arcadia Greenway
7 - ATT-Smith Farm Connection*
8 - ATT Access
9 - Beaver Creek Commons Dr Side Path**
10 - Beaver Creek Greenway**
11 - Beckett Crossing Greenway
12 - Buckhorn Preserve Greenway
13 - Castleberry Trails Greenway
14 - Charleston Village Greenway
15 - Clark Branch Greenway
16 - Community Lake Trail
17 - Community Park Connector
18 - Creekside Landing Dr Side Path
19 - Crestmont Sidewalk Connection
20 - Deer Creek Greenway
21 - Downtown Strollway**
22 - Edgewater Pedestrian Spur
23 - Evans Rd Side Path
24 - Gartrell Way Side Path
25 - Green Level Church Rd Side Path
26 - Greenmoor Greenway*
27 - Haddan Hall Lake Trail
28 - Haddan Hall Greenway**
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63 - Swift Creek Greenway*
64 - The Reserve at Mills Farm Spur
65 - Turner Pines Dr Side Path
66 - White Oak Creek Greenway
67 - Wimberly Rd Side Path

* Segment contains Side Path
** Segment contains Sidewalk

Bike/Ped Crashes
- ▪ Non-Fatal Pedestrian Crashes
- ◼ Fatal Pedestrian Crashes
- ● Non-Fatal Bicycle Crashes
- ● Fatal Bicycle Crashes

Existing Facilities
— Greenway
— Side Path
— Sidewalk (Greenway)
— Trail
— Private Trail

◼ Town Campus
╫ Railroads
Existing Parks
Waterbody
Streams

Schools
Corporate Limits
ETJ Limits
Planning Area

0   0.5   1 Mile

N

Figure 12.12 - Bicycle + Pedestrian Crash Map

Planned NCDOT STIP Projects

Under the Complete Streets Policy, NCDOT is committed to collaborating with cities, towns, and communities to ensure planned pedestrian, bicycle, and transit options are included in transportation projects. Planned roadway improvement projects through the NCDOT Strategic Transportation Improvement Program (STIP) may provide opportunities for complete streets. All STIP projects without a final environmental document are subject to the NCDOT Complete Streets Policy. Once this plan is adopted, greenway route recommendations must be considered as a part of STIP projects through the Complete Streets Policy.

NCDOT 2020-2029 STIP projects within and around the Town of Apex are displayed on the following map. Projects containing bicycle and pedestrian improvements are described in the list below.

› EB-6021 is the Beaver Creek Greenway extension project. It is located between Kelly Road Park and Apex Nature Park. The project proposes to realign an adjacent segment of the existing Beaver Creek Greenway.

› EB-6046 is on West Chatham Street from Hunter Street to Saunders Street in Apex. The project will construct sidewalk extensions and improve the safety of a pedestrian crossing.

› HL-0007 is located on Technology Drive and East Williams Street. The project will convert the intersection to an interchange.

› U-2901B is the NC 55 widening project that includes side path along both sides of the road.

› U-5301 on US 64 includes pedestrian crossing improvements (not featured in the map).

› U-5537 is located on Lake Pine Drive and includes a 10 ft multi-use path on the east side and a 5 ft sidewalk on the west side of the road. The roadway will be widened to three lanes north of Macgregor Pines Road to north of Versailles Drive.

› U-5825 is a widening project that includes a side path and bike lanes along Ten Ten Road.

› The Town also has a cost share agreement with NC Turnpike to have a grade-separated crossing of Middle Creek under NC 540 north of Sunset Lake Road.
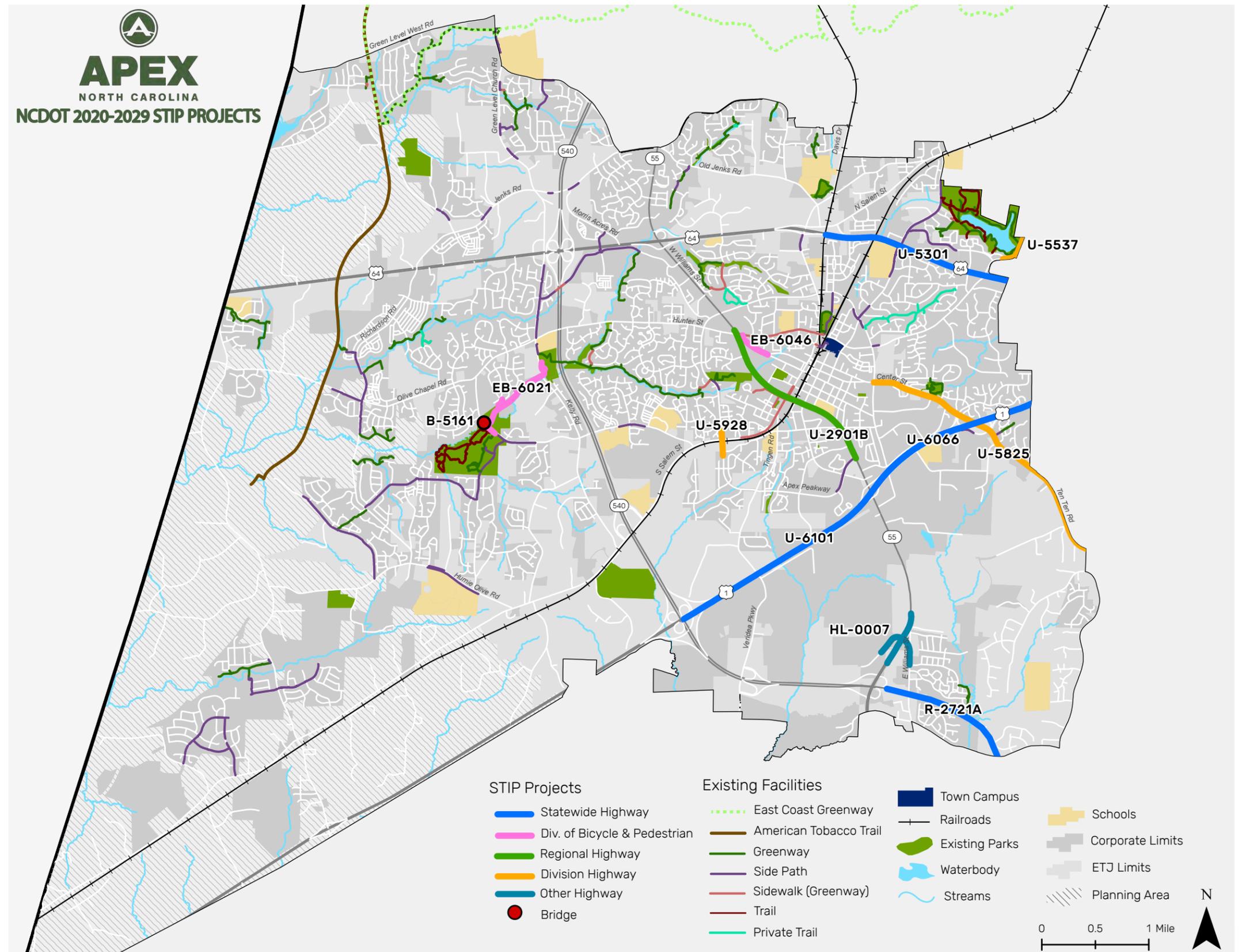
Figure 12.13 - NCDOT 2020-2029 STIP Projects

Topography

Apex has a varying topography that ranges from less than 250 ft above sea level near Jordan Lake and in stream beds to approximately 500 ft in the Town's historic core. This topographical feature is the origin of the name of the Town of Apex as it sits at the highest point along a 30-mile section of the Chatham Railroad. Steam engines would stop at the top of this climb to replenish their water supply on the way to Raleigh. Within the municipal limits, topography consists of terrain with some moderately steep slopes.

APEX
NORTH CAROLINA
EXISTING TOPOGRAPHY

GREENWAYS, SIDEWALKS, AND SIDE PATHS

1 - Ambergate Station Side Path
2 - American Tobacco Trail
3 - Apex Barbecue Rd Side Path
4 - Apex Community Park Trail
5 - Apex Peakway Side Path
6 - Arcadia Greenway
7 - ATT–Smith Farm Connection*
8 - ATT Access
9 - Beaver Creek Commons Dr Side Path**
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61 - Sutton Place Greenway
62 - Sweetwater Stair Access
63 - Swift Creek Greenway*
64 - The Reserve at Mills Farm Spur
65 - Turner Pines Dr Side Path
66 - White Oak Creek Greenway
67 - Wimberly Rd Side Path

* Segment contains Side Path
** Segment contains Sidewalk

Existing Facilities

- East Coast Greenway
- American Tobacco Trail
- Greenway
- Side Path
- Sidewalk (Greenway)
- Trail
- Private Trail
- Town Campus
- Railroads
- Existing Parks
- Waterbody
- Streams
- Topography
- Schools
- Corporate Limits
- ETJ Limits
- Planning Area

0   0.5   1 Mile

N

▲ Figure 12.14 - Existing Topography Map

Floodplains + Wetlands

Floodplains and wetlands are unsuitable for development, so they are often considered prime corridors for greenways. While central Apex is located on a hill, the western region of the Town drains into Jordan Lake via Beaver Creek, Little Beaver Creek, and White Oak Creek. Floodplains and some wetlands cover most of these corridors, making it necessary for some greenways to be constructed using boardwalks. Big Branch drains to the Shearon Harris reservoir and Middle Creek drains to Sunset Lake.

APEX
NORTH CAROLINA
EXISTING FLOODPLAINS & WETLANDS

GREENWAYS, SIDEWALKS, AND SIDE PATHS

1 - Ambergate Station Side Path
2 - American Tobacco Trail
3 - Apex Barbecue Rd Side Path
4 - Apex Community Park Trail
5 - Apex Peakway Side Path
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50 - Olive Chapel Side Path
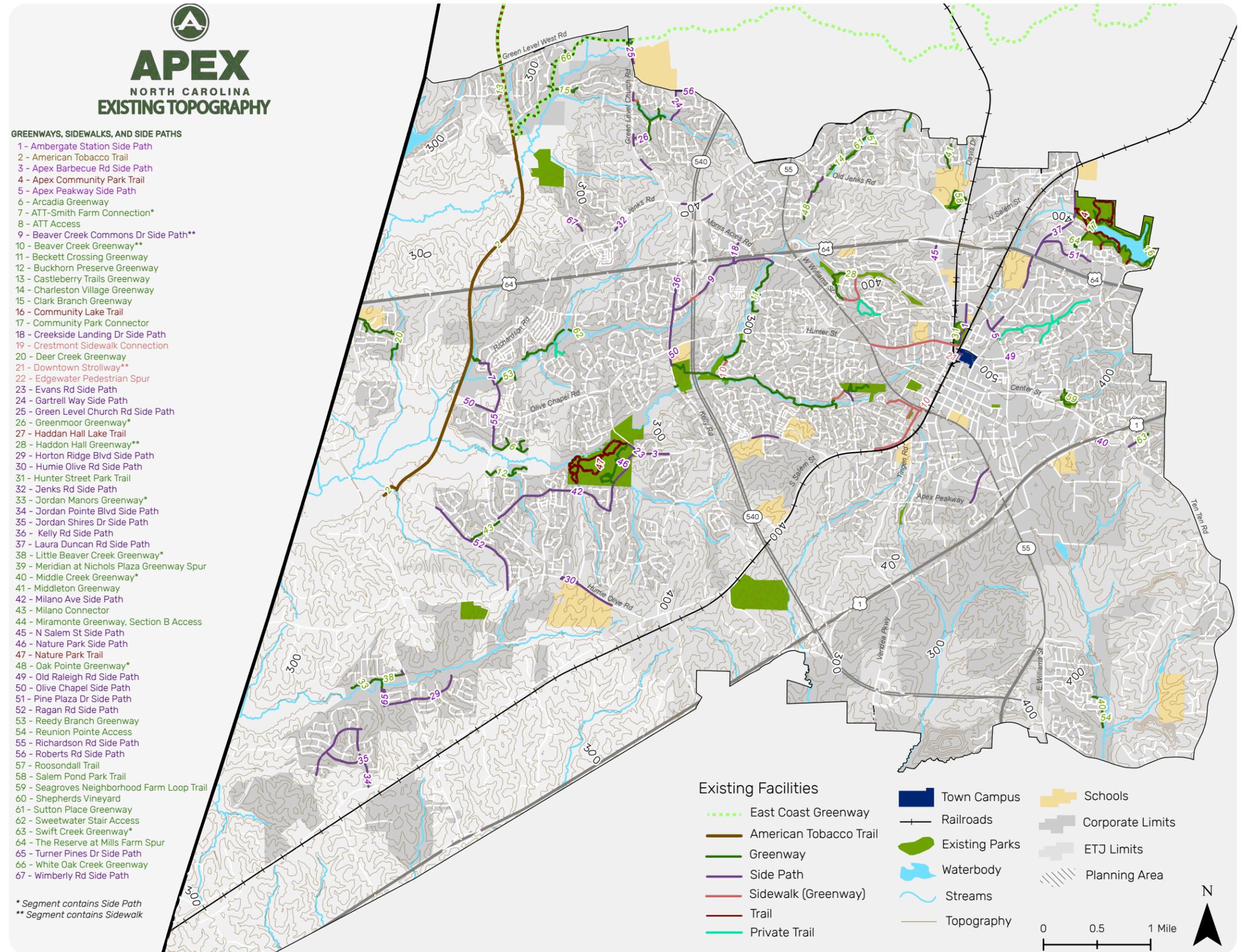51 - Pine Plaza Dr Side Path
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61 - Sutton Place Greenway
62 - Sweetwater Stair Access
63 - Swift Creek Greenway*
64 - The Reserve at Mills Farm Spur
65 - Turner Pines Dr Side Path
66 - White Oak Creek Greenway
67 - Wimberly Rd Side Path

* Segment contains Side Path
** Segment contains Sidewalk

Existing Facilities

Greenway
Side Path
Sidewalk
Trail
Private Trail
East Coast Greenway
American Tobacco Trail

Marine Wetland
Freshwater Wetland
Forested Wetland
Lakes and Ponds
Riverine
Existing Parks

100yr Floodplain
500yr Floodplain
Town Campus
Railroads

Schools
Corporate Limits
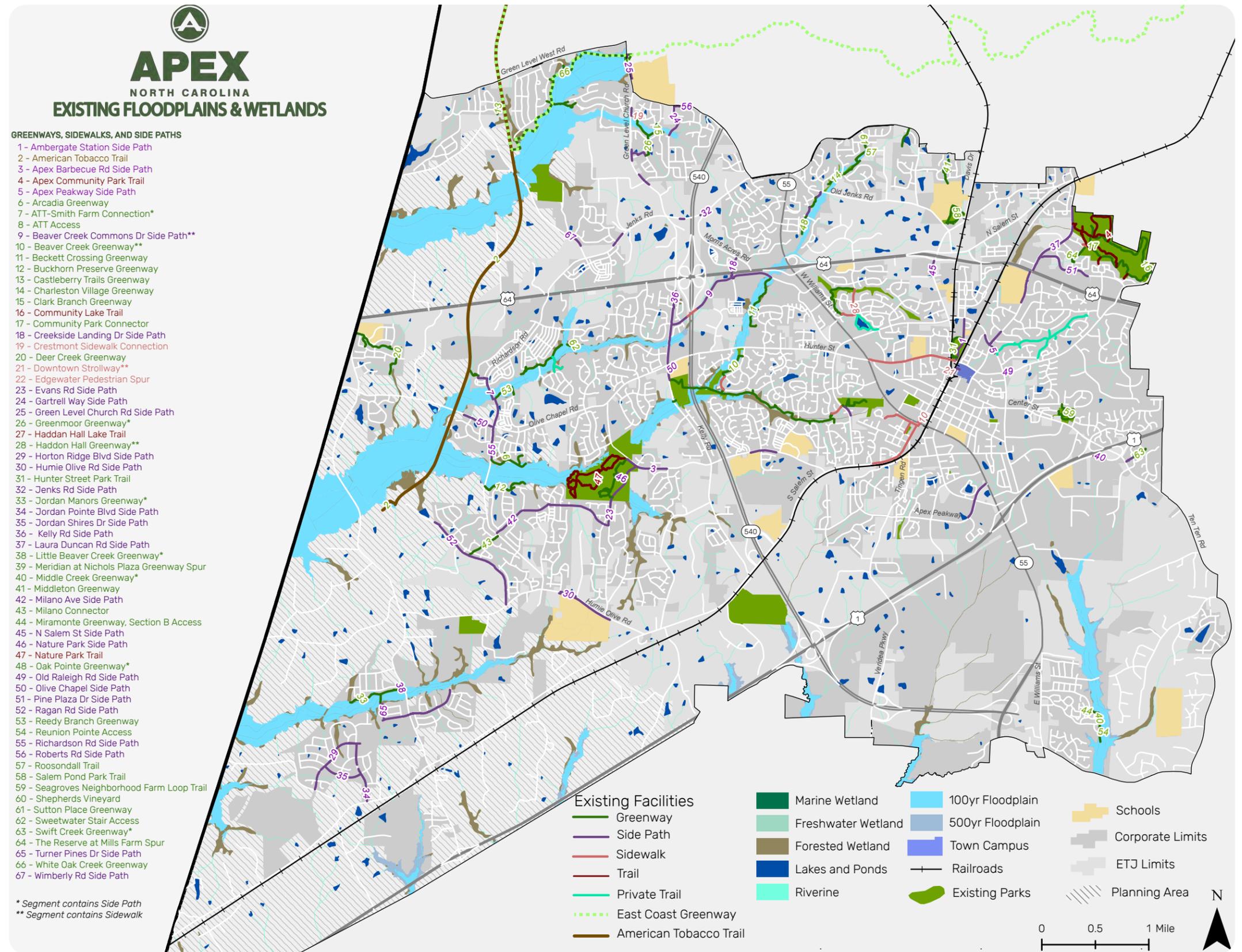ETJ Limits
Planning Area

0   0.5   1 Mile

N

Figure 12.15 - Existing Floodplains + Wetlands Map

Utilities + Easements

Utility infrastructure such as power and sewer lines often require large easements to ensure access and security. These can also be used for greenway corridors in many cases. Apex has existing examples of greenways constructed parallel to sewer and power lines. Sewer lines are of particular interest to greenway planning as they often are routed through low-lying areas and floodplains. Environmental protection is also achieved when greenways are located on existing utility easement corridors. Placing greenways along corridor easements that have already been cleared for utilities means that fewer trees must be cleared for the greenway. The Town of Chapel Hill serves as a nearby example of a municipality that frequently relies on this strategy to expand its greenway network. The Town places the majority of its trails along its sewer easements where land is undeveloped. This strategy supports the Town's foundational goal of environmental conservation.

Both Duke Energy and sewer line easements are mapped below, and in some cases the two overlap. Two examples of greenways in Apex that are constructed adjacent to utility easements include the Beaver Creek Greenway and Reedy Branch Greenway.
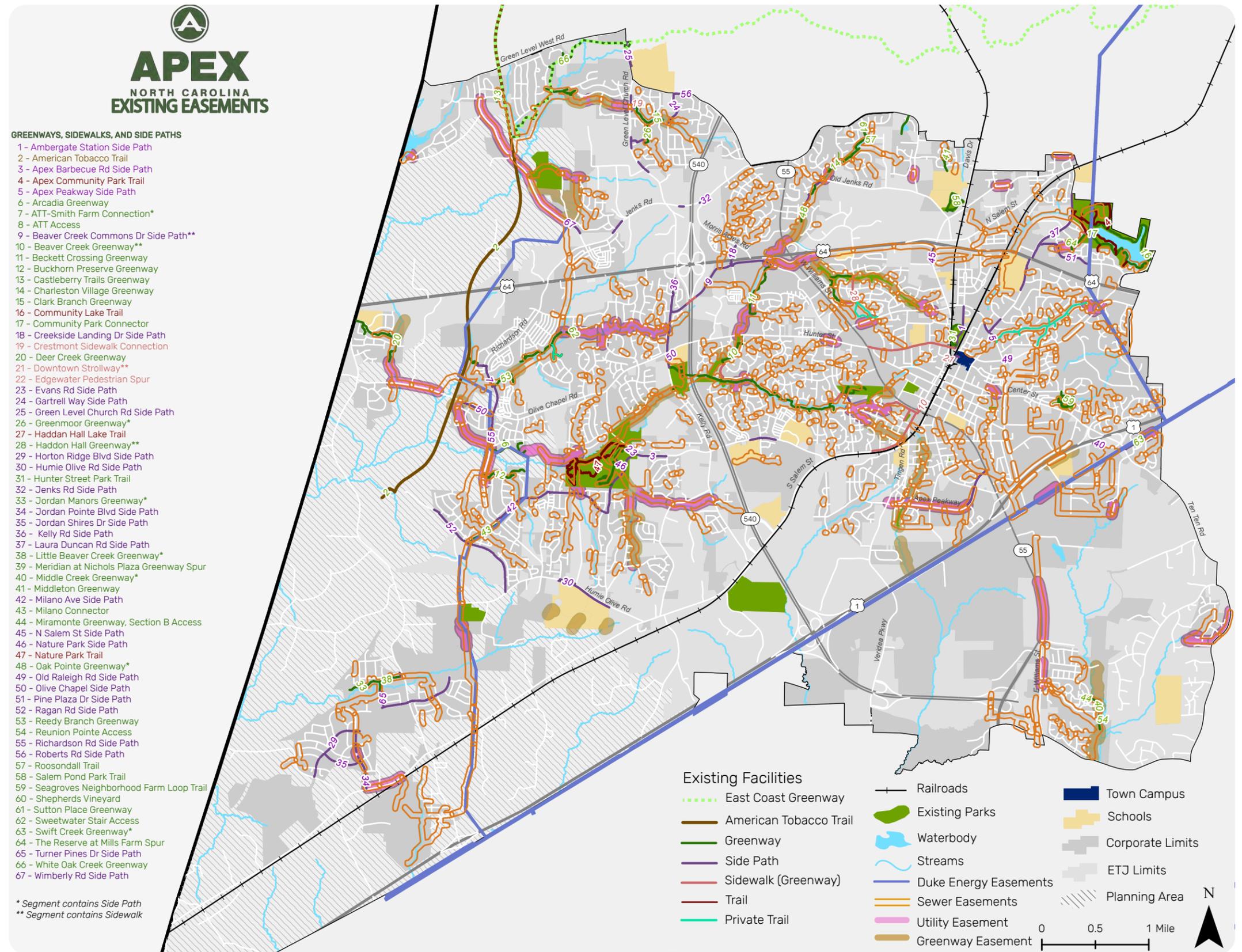
APEX
NORTH CAROLINA
EXISTING EASEMENTS

GREENWAYS, SIDEWALKS, AND SIDE PATHS

1 - Ambergate Station Side Path
2 - American Tobacco Trail
3 - Apex Barbecue Rd Side Path
4 - Apex Community Park Trail
5 - Apex Peakway Side Path
6 - Arcadia Greenway
7 - ATT-Smith Farm Connection*
8 - ATT Access
9 - Beaver Creek Commons Dr Side Path**
10 - Beaver Creek Greenway**
11 - Beckett Crossing Greenway
12 - Buckhorn Preserve Greenway
13 - Castleberry Trails Greenway
14 - Charleston Village Greenway
15 - Clark Branch Greenway
16 - Community Lake Trail
17 - Community Park Connector
18 - Creekside Landing Dr Side Path
19 - Crestmont Sidewalk Connection
20 - Deer Creek Greenway
21 - Downtown Strollway**
22 - Edgewater Pedestrian Spur
23 - Evans Rd Side Path
24 - Gartrell Way Side Path
25 - Green Level Church Rd Side Path
26 - Greenmoor Greenway*
27 - Haddan Hall Lake Trail
28 - Haddan Hall Greenway**
29 - Horton Ridge Blvd Side Path
30 - Humie Olive Rd Side Path
31 - Hunter Street Park Trail
32 - Jenks Rd Side Path
33 - Jordan Manors Greenway*
34 - Jordan Pointe Blvd Side Path
35 - Jordan Shires Dr Side Path
36 - Kelly Rd Side Path
37 - Laura Duncan Rd Side Path
38 - Little Beaver Creek Greenway*
39 - Meridian at Nichols Plaza Greenway Spur
40 - Middle Creek Greenway*
41 - Middleton Greenway
42 - Milano Ave Side Path
43 - Milano Connector
44 - Miramonte Greenway, Section B Access
45 - N Salem St Side Path
46 - Nature Park Side Path
47 - Nature Park Trail
48 - Oak Pointe Greenway*
49 - Old Raleigh Rd Side Path
50 - Olive Chapel Side Path
51 - Pine Plaza Dr Side Path
52 - Ragan Rd Side Path
53 - Reedy Branch Greenway
54 - Reunion Pointe Access
55 - Richardson Rd Side Path
56 - Roberts Rd Side Path
57 - Roosondall Trail
58 - Salem Pond Park Trail
59 - Seagroves Neighborhood Farm Loop Trail
60 - Shepherds Vineyard
61 - Sutton Place Greenway
62 - Sweetwater Stair Access
63 - Swift Creek Greenway*
64 - The Reserve at Mills Farm Spur
65 - Turner Pines Dr Side Path
66 - White Oak Creek Greenway
67 - Wimberly Rd Side Path

* Segment contains Side Path
** Segment contains Sidewalk

Existing Facilities

East Coast Greenway
American Tobacco Trail
Greenway
Side Path
Sidewalk (Greenway)
Trail
Private Trail

Railroads
Waterbody
Streams
Duke Energy Easements
Sewer Easements
Utility Easement
Greenway Easement

Town Campus
Existing Parks
Schools
Corporate Limits
ETJ Limits
Planning Area

N

0   0.5   1 Mile

Figure 12.16 - Existing Easements Map

Opportunities + Constraints

An Opportunities and Constraints Analysis was performed to supplement site visits and fieldwork observations. It also helped the study team identify new areas for improvement that had not been addressed since the creation of the Town's existing Bicycle and Pedestrian System Plan Map. This analysis also helped the study team gain a better understanding of the community's needs and identify limitations within the Town as they relate to greenway planning.

The following table corresponds to the opportunities and constraints labeled on the following map. The table provides a summary of opportunities and constraints that may inform the development of project recommendations and planning strategies for Apex's greenway network.

The following opportunities and constraints were considered as part of this analysis:

› Neighborhood connectivity
› Multimodal connectivity
› Connections to schools
› Connections to parks
› Connections to the regional trail network
› Connections to neighboring jurisdictions
› Downtown connectivity
› Connections to shopping and commerce
› Developer-built greenways
› Facility connectivity along roadways
› Maintenance of existing greenways
› Utility easements

APEX
NORTH CAROLINA
EXISTING GREENWAYS NETWORK

OPPORTUNITIES + CONSTRAINTS
1. Neighborhood Connectivity
2. Multimodal Connectivity
3. Connections to Schools
4. Connections to Parks
5. Connections to Regional Trail Network
6. Connections to Cary
7. Connections to Holly Springs
8. Downtown Connectivity
9. Connections to Shopping and Commerce
10. Developer-Built Greenways
11. US 64
12. US 1
13. NC 540
14. NC 55
15. Railroads
16. American Tobacco Trail
17. Apex Peakway
18. Olive Chapel Road
19. Maintenance of Existing Greenways
20. Utility Easements
21. Ten Ten Rd

Existing Facilities

Existing Facilities		
East Coast Greenway	Town Campus	Schools
American Tobacco Trail	Railroads	Corporate Limits
Greenway	Existing Parks	ETJ Limits
Side Path	Waterbody	Planning Area
Sidewalk (Greenway)	Streams	
Trail	Opportunity/Constraint	
Private Trail		

Figure 12.17 – Existing Greenways Network with Opportunities + Constraints Map

Opportunities + Constraints

OPPORTUNITIES + CONSTRAINTS	DESCRIPTION
1. Neighborhood Connectivity	The incremental development of greenways largely constructed by developers has left Apex with gaps in its network. Along the Reedy Branch Greenway, gaps exist between Richardson Rd and Hasse Ave, between the Sweetwater and Stratford at Abbington neighborhoods, and east of Stratford at Abbington to Kelly Rd. A gap in the Beaver Creek Greenway prevents users from traveling between the Pearson Farms and Beckett Crossing neighborhoods across Olive Chapel Rd without a detour. Other gaps are located between the White Oak Creek Greenway and Beaver Creek Commons, within the Haddon Hall neighborhood, and between the privately maintained Shephard's Vineyard Greenway and Downtown Apex. Some of these gaps can be closed with future development, while others will have to be constructed by the Town.
2. Multi-modal Connectivity	While transit access in Apex is currently limited, many of Apex's current bus stops are along corridors that are accessible by greenway or side path. A proposed intercity rail service between Sanford and Norlina creates the possibility of a station in Apex, which could be linked to the greenway network to provide a true multi-modal connection.
3. Connections to Schools	A robust greenway network with safe connections to schools would enable many children to walk or bike to school. Some examples of schools with existing side paths in front of the properties include Apex High School, Laurel Park Elementary School, Green Level High School, Scotts Ridge Elementary, and the Apex Friendship Schools Campus. The Salem Schools Campus also has a greenway trail that ties into the property line on the north side of the property. Despite these examples, several schools still lack similar facilities.

In Downtown Apex, it is more context sensitive to provide sidewalks rather than side paths so there are existing sidewalks along roadways fronting Baucom Elementary School, Apex Elementary School, and Apex Middle School. Currently, multi-use connections (e.g., greenways and side paths) are lacking at Salem Elementary School, Salem Middle School, Apex High School, Apex Friendship High School, Green Level High School, and Lufkin Road Middle School. The Town of Apex continues to coordinate with Wake County Schools to improve bicycle and pedestrian connections to local schools. The development of new schools, including the planned Felton Grove High School, will allow for greenways to be included within the design process from the beginning. |

OPPORTUNITIES + CONSTRAINTS	DESCRIPTION
4. Connections to Parks	Connecting parks via greenways and side paths is a top priority in Apex. Although many parks have walking trails within their borders, connectivity between parks is lacking. The Beaver Creek corridor offers the potential to link Apex Nature Park to Kelly Road Park, Apex Jaycee Park, and other neighborhood parks in the downtown area. Greenway connections are also missing or lacking for Pleasant Park, Olive Farm Park, Shearon Harris Park, Salem Pond Park, Apex Community Park, and Seagrove Park. As the Town continues to develop and acquire more land for parks, the need for greenway connectivity will remain a priority.
5. Connections to Regional Trail Network	Apex is one piece of a larger regional network of greenways and trails that improves the quality of life for everyone. Several regionally known corridors, such as the East Coast Greenway pass through Apex, including greenways along New Hill Holleman Rd, Swift Creek, and Middle Creek. An extension of the Beaver Creek Greenway would allow the Town to create a new connection to the American Tobacco Trail similar to what is provided by the White Oak Creek and Reedy Branch Greenways. Development of these trails will allow residents of Apex to travel safely across southwestern Wake County and beyond without a car.
6. Connections to Cary	Apex and Cary are closely intertwined, and it is important to ensure that greenway and trail planning is coordinated across municipal lines. Several locations offer the opportunity to strengthen transportation connections between the two jurisdictions, including the Swift Creek corridor (which will ultimately extend to Lake Wheeler and Lake Benson in Garner), Laura Duncan Rd, Middleton Greenway, and Roberts Rd.
7. Connections to Holly Springs	As Apex continues to grow to the south and west, it can strengthen greenway links with the Town of Holly Springs. Completing the Middle Creek Greenway corridor and side path along New Hill Olive Chapel from the American Tobacco Trail to Harris Lake Park would provide much needed connectivity. Side paths along Veridea Pkwy and Williams St would enable additional connections in a fast-growing part of the county that is currently lacking in greenway connections.
8. Downtown Connectivity	Apex has a vibrant historic downtown, but without a car it is difficult to access for some people. The existing Beaver Creek Greenway ends at Apex Jaycee Park, leaving users without a safe connection to Downtown and users must follow along streets that lack sidewalks. A similar lack of connectivity between Downtown and residential neighborhoods north of the Apex Peakway presents an opportunity to improve bicycle and pedestrian connections along major roadways within the Town core.

OPPORTUNITIES + CONSTRAINTS	DESCRIPTION
9. Connections to Shopping and Commerce	Many of Apex's existing greenways are outside of Downtown in more recently developed areas, but gaps remain between neighborhoods and some of the shopping destinations residents would like to access by walking or biking. Access to and within Lake Pine Plaza, Olive Chapel Village, Haddon Hall Commons, Peakway Market Square, Beaver Creek Commons, and other shopping destinations along Williams St is currently difficult and unsafe for bicyclists and pedestrians. Proposed side paths in these locations will address safety concerns and create new opportunities for Apex residents to use greenways and trails to reach useful daily destinations.
10. Developer-Built Greenways	Under development ordinances in Apex, new development may be required to construct sidewalks, greenways, and trails planned by the Town. As Apex continues to grow, there are many locations where development is concentrated, including Southwest Apex along Old US 1 and Humie Olive Rd, as well as the Depot 499 and Veridea master-planned, mixed-use developments.
11. US 64	US 64 is a major travel corridor through Apex with a growing number of retail and entertainment uses; however, it lacks bicycle or pedestrian infrastructure at present. The corridor is set to be modified to a limited-access highway (U-5301), which will eliminate any need for trails along the highway. Crossings at Lake Pine Dr, Laura Duncan Rd, Shepherds Vineyard Dr, and Salem St should be improved in coordination with NCDOT work on U-5301. Other crossings outside the project limits offer the potential for additional improvements, including NC 55, Kelly Rd, and Richardson Rd/Jenks Rd.
12. US 1	Bicycle and pedestrian connectivity across US 1 is limited with only the NC 55 bridge providing narrow sidewalks. Opportunities exist to improve this crossing as well as add new crossing options at Veridea Pkwy.
13. NC 540	The Triangle Expressway, NC 540, serves as a major barrier to bicycle and pedestrian connectivity in western and southern Apex with very few greenway crossings. Several existing roadway crossings could be upgraded to accommodate multi-use paths across the highway, including Roberts Rd, Jenks Rd, S Salem St, and Veridea Pkwy. The Southern Wake Expressway, which will extend 540 from NC 55 to I 40 in Garner, includes a section of grade-separated greenway along Middle Creek which will connect to existing greenways in Apex and the Holly Springs Greenway.
14. NC 55	Multiple projects along the NC 55 corridor offer the opportunity to improve greenway connectivity in Apex. Extending the Beaver Creek Greenway to NC 55 is a priority for the Town. Side paths proposed on both sides of the roadway (U-2901) offer the opportunity to greatly enhance safety and mobility in this region, and a proposed tunnel under the roadway at Jaycee Park would offer a safe crossing of this busy corridor. This also provides the opportunity to connect to Holly Springs via side path.

OPPORTUNITIES + CONSTRAINTS	DESCRIPTION
15. Railroads	The CSX S-Line rail corridor runs through the heart of Apex and presents a major barrier to connectivity within the town. Few bicycle and pedestrian crossings exist, and safety concerns with the railroad make future at-grade crossings unlikely. However, in one case, the 2021 Streets & Sidewalks bond included funding to construct at-grade pedestrian crossings of the railroad at Center St and E Chatham St. Grade separation projects such as the Apex Peakway Southwest Connector (NCDOT project U-5928) also offer the potential to improve greenway connectivity in Apex. The possibility of future commuter rail service along this corridor also raises the possibility of developing a greenway corridor alongside the tracks.
16. American Tobacco Trail	The American Tobacco Trail, which runs along a former rail bed in western Apex, is a major regional activity draw. The trail is unpaved within Apex's jurisdiction, and some sections are prone to occasional flooding. Opportunities exist for new or improved trail heads at Olive Chapel Rd, Ragan Rd, along Wimberly Rd or associated with the future Wimberly Rd parkland, and Green Level West Rd.
17. Apex Peakway	Once complete, the Apex Peakway will offer a looping connection to many neighborhoods near Apex's core. The completion of the final segments of the Peakway will offer opportunities to provide new side path and greenway connections.
18. Olive Chapel Rd	Olive Chapel Rd provides one of the primary connections from Apex Peakway to the American Tobacco Trail. However, the lack of connected sidewalks and side paths make it unsafe and inconvenient for many users. There are bike lanes planned along the corridor, and an existing side path at Richardson Rd could be extended to increase off-street connectivity for pedestrians and bicyclists.
19. Maintenance of Existing Greenways	Apex has an existing greenway system which is well-used, but some sections need repair after years of use. Greenways in Salem Pond Park and the Haddon Hall neighborhood are showing their age and may benefit from widening to accommodate an increase in users. Beaver Creek needs to be resurfaced, have shoulders repaired, and has some other cross slope issues. One of the flooded areas was relocated, but it is still flooding. A nearby area is currently undergoing stream restoration. The Apex Community Park trail needs to be widened due to the high traffic use, conflict of user types, and the tight curves and hills. Flooding issues are also present at Apex Community Park, as well as along the Beaver Creek Greenway beneath NC 540.

OPPORTUNITIES + CONSTRAINTS	DESCRIPTION
20. Utility Easements	In addition to roadway and stream corridors, utility easements offer opportunities for greenway construction. One existing easement provides possible connections within Apex including Duke Energy easements near Humie Olive Rd and along US 1. Most of the easement for the Southwalk Greenway has been acquired but will require a realignment at the Peakway since the existing alignment goes through a trailer park. This easement is located in the Justice Heights neighborhood between Apex Peakway and S Salem St.
21. Ten Ten Rd	NCDOT project U-5825 would widen Ten Ten Rd from Kildaire Farm Rd in Cary to Apex Peakway and includes a replacement bridge over US 1 with a side path on the north side. Additionally, U-2525 includes bicycle lanes along Ten Ten Rd.

COMMUNITY + STAKEHOLDER ENGAGEMENT

Public Survey

The public survey was launched on October 7, 2022, through PublicInput.com to gain insight into the Town's values, facility use (greenways and trails), amenity needs and more. The survey had 748 total respondents with over 700 comments. The survey was closed on October 24, 2022, and the results related to greenways and trails are described below.

›   Community Values: Environment + Nature was the top preference in terms of community values in the survey. This was followed by Health + Wellness. Culture + Arts was ranked as the lowest priority.

›   Greenways + Trail Use: Respondents marked that they would like to use greenways and trails to walk (followed by bicycling). Few respondents currently use the facilities for commuting purposes.

›   Greenways + Trails Experiences: The top three experiences that respondents would like to have while using Apex's greenways and trails include the following:
  -   Improving Health + Wellness
  -   Connect with Nature
  -   Connectivity to Parks, Downtown, and Other Destinations

›   Amenity Needs: Respondents marked the following amenities as their top five needs within the Town:
  -   Greenways and trails with trail heads (56%)
  -   Water sports access (33%)
  -   Environmental conservation, restoration, and enhancement (31%)
  -   Aquatics facility (29%)
  -   Community gardens (27%)

›   Criteria for Prioritization: The top three priorities to consider as the Parks, Recreation, and Cultural Resources Department develops the 10-year master plan include the following:
  -   Promoting health and wellness programming (54%)
  -   Promote environmental sustainability (44%)

  -   Ensuring affordability to users (33%)
  -   Physical connectivity through Town (33%)
  -   Creating community connections (32%)

›   When prompted to share additional comments regarding values, wishes, or concerns for the future development of the Parks, Recreation and Cultural Resources Department, respondents listed the following comments:
  -   Would like to see light displays within walking trails at Lake Pine (Apex Community Park) around the holidays.
  -   Interested in more flower gardens and fountains/lakes within the parks.
  -   Consider providing blueway access points at Beaver Creek.
  -   Interested in supporting and encouraging more public art and cultural events.
  -   Initiate nature walk and history walk programs at the senior center.
  -   Endorse mountain biking in the area.
  -   Include the special needs community in outdoor programming.

Public Meetings

The project team held two open house events for the community to learn more about the Project and provide their input.

Open House #1

The first open house took place on October 8th, 2021, via Zoom. The purpose of this meeting was to solicit input from the public regarding recreational facility, greenways and trails, and program needs. The 56 open house participants were given a brief presentation about the Town's past planning efforts, the current comprehensive planning process, components/contents of the plan, and a snapshot of Apex' current recreation inventory. Attendees took part in several polling questions and had the opportunity to ask questions and express opinions by way of Zoom's question and answer widget. As anticipated, virtual open house participants were vocal about greenways in Apex. Key findings related to greenways from this event are listed below.

Key Findings:

›   In an exercise geared at figuring out what evokes a sense of pride in the community, greenways were listed as a top response.

›   During the pandemic, a poll found that respondents used greenways and parks primarily for exercise and exploring nature.

›   Conversations generally focused on closing greenway gaps, adding neighborhood connections, and overall feelings of safety accessing the greenways.

›   Several participants discussed perceived hazards associated with crossing Highway 55 near Jaycee Park. Others voiced their concern with the influx of cyclers on the roads and asked why they resist using greenways for cycling.

›   Apex PRCR staff conveyed that (1) future development and prior plans guide recommendations for and prioritize future greenway connections; (2) a recent amendment to the Town's transportation plan identified the opportunity for a greenway trail to run under Highway 55; (3) the Town has additional funding for greenway planning beyond the current report; and (4) in order to provide the right opportunities for the experience long-distance cyclers want, Apex Engineering and Transportation are looking at ways to balance bike lanes with pedestrian sidewalks and multi-use paths.

Open House #2

The second open house took place on June 22, 2022, at the Apex Community Center. The project team provided information on the master plan, project process, and the schedule. Both informational and interactive boards were set up for attendees to learn more about the recommendations made for greenways, future park areas, guiding principles within the Town. Site-specific boards for existing parks were shared with attendees so they could add notes on additional opportunities for each. Key findings related to greenways from this event are listed below.

› One attendee expressed interest in promoting greenways through a badge program. Those who complete all greenways and trails would receive an honorary badge.
› Discussions were also centered around promoting downtown connectivity through the expansion of the greenway network.
› One attendee asked the project team to add a side path parallel to the railroad to the NC 540 bridge. This would connect to the Apex Friendship Schools and Pleasant Park.
› Environmental stewardship and preservation of existing natural resources and features was marked as top priority in the guiding principles framework exercise.

Focus Groups

Town staff held a series of four focus group meetings on January 31 and February 1, 2022. The purpose of these meetings was to understand the recreation needs of otherwise underrepresented groups in the community engagement process. Specific groups engaged included cultural arts and special events, seniors and disabled populations, non-athletic programs, and athletic programs. There were approximately 23 participants across all four focus groups. Each group was asked a consistent set of questions relating to programs, parks, facilities, and greenways usage and overall needs, as well as specific concerns and barriers to park and facility usage and program participation. The key findings relating to greenways are summarized below.

Cultural Arts + Special Events

Participants felt that continuing to link greenways to Town facilities such as parks and cultural centers was beneficial to residents. Having access to Town facilities via active transportation infrastructure enhanced the health and cultural involvement of residents and visitors.

Seniors + Disabled Populations

Participants voiced a desire to ensure parks are connected and accessible for users of all ages and abilities.

Non-Athletic Programs

Participants in this focus group expressed satisfaction with the wide range of park facilities and amenities offered in Apex, but also noted that the rapid development of the community presented the need to preserve space for park and recreation facilities. Filling gaps in the greenway system was cited as a priority.

Athletic Programs

There were no discussions of greenway needs in this focus group.

Interdepartmental Meeting

Town staff and leadership were integral in the development of Apex's Comprehensive Parks, Recreation, Greenways, and Open Space Plan, providing valuable insight into the existing and planned facilities of Apex's greenway network. Following meetings with Parks, Recreation & Cultural Resources Department staff, other departments were engaged to understand each department's relationship and responsibility regarding greenway facilities. Town departments interviewed include Planning and Community Development, Public Works and Transportation, and Water Resources. Prior to the meeting, staff were asked to complete a survey, responding to general questions on individual roles and responsibilities for greenway facilities. During the meeting, staff were asked specific questions for each department. The meeting summary is outlined below.

Planning + Economic Development Departments

› Staff roles in greenway planning, development, and maintenance include reviewing site plans; updating planning documents such as the Bike Apex Plan, Bicycle and Pedestrian System Plan and Map, and the Comprehensive Plan; updating GIS shapefiles as greenway facilities are planned and developed; and coordinating with the Parks and Recreation Department on site plan review and updating greenway design standards.
› Staff voiced the need to improve policies and practices that ensure greenway network connectivity by coordinating more closely with Parks, Recreation & Cultural Resources Department staff during plan review and with Water Resources on greenway design and development along utility easements.
› The UDO currently requires greenways be constructed prior to the time that 25% of the building permits are issued for PUD's and 50% of the building permits for all other residential development. With the location of greenways often in the remote parts of project boundaries, staff are interested in exploring revisions to the UDO that requires greenway construction to be better aligned with how property is typically developed.

Transportation & Infrastructure Development Department

› Staff shared that greenway projects are often not prioritized by either the Transportation & Infrastructure Development Department or the The Parks, Recreation & Cultural Resources Department. The two departments meet monthly to coordinate projects, but long-range planning staff often work between them. A separate funding request is needed in the Town's Capital Improvement Program to initiate projects.
› Implementing bicycle and pedestrian infrastructure is often piecemeal as development occurs and roads are improved or constructed to new Town standards, leaving gaps in long-range networks. For larger projects, shared funding opportunities are sometimes possible when outside funding sources are used.
› The Town is working on a Vision Zero program and is developing standards of protected and separated bicycle facilities on shared corridors.

Public Works Department

› Staff noted that greenway maintenance is performed by Parks, Recreation & Cultural Resources Department staff rather than Public Works. No budget is provided for greenway maintenance except in the case of emergency repairs.
› When greenways are constructed within floodplains and along utility corridors there are sometimes conflicts between uses for the corridor. Staff voiced a desire to work with other Town departments on designing greenway corridors to ensure access for utility maintenance.
› Greenways should be offset 10 ft from a utility line to ensure access. While boardwalks are sometimes the only viable material for a section of greenway, boardwalk structures are not generally designed for utility traffic and can lead to safety concerns.

Interjurisdictional Meeting

Town staff held a meeting with staff from neighboring jurisdictions to coordinate greenway and side path recommendations across planning boundaries. The Town of Cary, Town of Holly Springs, Wake County, and Chatham County were invited to discuss corridor recommendations and priority projects to ensure regional connectivity. Staff also discussed greenway design standards, maintenance programs and responsibility, and greenway development ordinances.

Wake County

Several greenway connections to the American Tobacco Trail in Wake County were considered at the meeting, including from the Reedy Branch Greenway and side paths on Ragan Rd and Wimberly Rd. A proposed extension of the American Tobacco Trail south of its current terminus is a priority project as it would enable connections to side paths on Humie Olive Rd and New Hill Holleman Rd, a planned recreation activity center on New Hill Olive Chapel Rd, and the Little Beaver Creek Greenway which is another priority corridor.

Chatham County

Discussions with Chatham County focused primarily on providing greenway access to Jordan Lake, which is a major recreation attraction with campground areas and beach access.

Town of Cary

Connections with Cary are possible along many corridors including side path on Green Level Church Rd, Roberts Rd, NC 55, Davis Drive, and Ten Ten Rd. The Swift Creek Greenway would connect Apex Community Park to Koka Booth Amphitheater and staff was supportive of the Swift Creek Connector which would also connect Middle Creek Greenway to Regency Park/Koka Booth and is included on the Great Trails State Plan. Staff also discussed connecting the Sherwood Greens Greenway in Cary to the Middleton Greenway and Salem Pond Park Greenway in Apex. Grade separated facilities were also discussed for Green Level Rd, US 64, and US 1.

Town of Holly Springs

Staff discussed three connections to Holly Springs, including Middle Creek Greenway (also known as Arbor Creek in the past) which is a part of the Great Trails State Plan, a side path on Veridea Pkwy connecting to the proposed Big Branch Greenway, and a side path connection along an extension of Pleasant Plains Rd to Pleasant Park in Apex which will require a grade-separated crossing of US 1.

Wake County Safe Routes to School

A general desire to connect to schools was expressed by communities present at the meeting. Staff should continue to coordinate with the Wake County Public School System on new and existing school sites to ensure students can walk and bike to school safely.

GREENWAY NETWORK RECOMMENDATIONS

Overview

Greenway recommendations primarily address the recreational needs of Apex residents and visitors by developing a comprehensive network. The proposed greenway system builds off recommendations developed in previous planning efforts and greenway network needs expressed by community members during the planning process. This section translates the vision for an accessible greenway system that connects people, parks, and destinations in the community into a strategic set of recommendations with proposed strategies for developing the network, amenities, and policies.

Greenway Facility Recommendations

Apex's greenway facility recommendations establish a comprehensive system that compliments recent active transportation and park planning efforts. Recommendations were developed based on community and stakeholder input, a review of existing conditions, key destinations, and connections identified through the planning process, and a prioritization process. The proposed system provides a network of greenways and side paths that is accessible and feels safe for people of all ages and abilities.

DESIGN STANDARDS + TYPICAL SECTIONS

The standards and methods in which greenways are designed impact the experience and safety of the diverse set of users that take to greenways for a variety of recreational, health, and transportation purposes. This section illustrates aspects of facility design to help guide future actions by Apex and its partners in planning for, designing, constructing, and maintaining greenways that connect to a variety of destinations, promotes a diverse user experience, and is built to a maintainable scale. Current design standards and typical sections for the Town are also provided in this section. The Town should update their design standards to reflect the recommendations in this plan.

Materials Selection

Factors to be considered in the selection of materials for greenways include anticipated facility type (recreational versus commuter), expected use activities (i.e., walking, bicycling, running, and rollerblading), age and ability of users, environmental conditions, construction cost, maintenance burden and costs, and funding source requirements among others. A variety of materials are described and illustrated below.

Paved Surface

Paved greenway surfaces such as asphalt or concrete offer great accessibility to accommodate users of all ages and abilities. Asphalt pavement tends to be the most popular and cost effective for paved greenways. Concrete pavement is more durable, but it costs more than asphalt pavement. As such, concrete greenways are typically more common in urban settings (where projected user volumes are high or the greenway may be subject to vehicular loading more often) or in areas subject to heavy flooding forces that may cause damage to the greenway.

Figure 12.18 - Paved Asphalt - Lower McApline Creek Greenway, Charlotte, North Carolina

Figure 12.19 - Concrete Surface Greenway - Cross City Trail in Granville County, North Carolina

Natural Surface

Compacted aggregates and compacted native soil are two types of natural surfaces that can be used for greenways. Both are budget-friendly options that have been implemented in greenway systems across North Carolina and beyond to provide a durable alternative to paved paths.

Compacted aggregates have proven to be a durable, affordable, and readily available means of providing a natural surface for greenway construction. Granite fines are a commonly used material due to their availability from local quarries and their ability to achieve compaction of a level surface that is accessible to most users. Proper compaction and handling adjacent drainage are keys to the success of using this material. Annual maintenance is required to ensure that the facility's crown pitches drain. This typically includes laying and grooming additional aggregate as necessary to ensure that water rills and deep grooves do not form within the surface as a result of regular rain events. It is critical to establish drainage adjacent to the facility during construction to ensure concentrated runoff is not allowed to cross the greenway perpendicularly. Over time, these types of flows will erode the greenway and surfacing.

One of the most cost effective and easily constructed natural surface options is compacted native soil. Like compacted aggregate, this surfacing method relies heavily on material compaction and adjacent drainage. The existing soil must be able to achieve compaction levels of 95-98% to ensure facility integrity. If native soil is unsuitable, material may be imported at additional cost and installed with a roller and small excavating equipment depending on topography. Surface drainage should not be allowed to cross perpendicular to the facility to prevent washout and rills within the walking surface. Annual maintenance is required and includes re-compaction to ensure the facility remains crowned to properly pitch water to adjacent drainage features. Installation of additional soil in rain wash out areas may also be required.

Figure 12.20 - Compacted Soil Trail – American Tobacco Trail

Boardwalk

Material options for boardwalk decks include timber and concrete (cast-in-place or pre-cast). Timber has traditionally been used for its lower construction cost but requires regular maintenance and deck repairs/replacement to extend its functional life. The Town should consider using a concrete (pre-cast or cast-in-place) boardwalk deck as construction budgets allow to reduce the long-term maintenance burden associated with timber decking. Concrete deck options typically cost more upfront but have lower life-cycle costs due to reduced maintenance requirements.

In accordance with AASHTO pedestrian structure loading requirements, boardwalks 10 ft wide or less should be designed for H5 loading (10,000 lb vehicle) and boardwalks greater than 10 ft in width should be designed for H10 loading (20,000 lb vehicle).

Figure 12.21 - Concrete Boardwalk Deck – Toby Creek Greenway, Charlotte, North Carolina

Safety rails and handrails should be provided in accordance with applicable building codes. Timber, metal, and composite railing options are available depending on site conditions, desired aesthetics, and budget. Boardwalk substructure design and materials may vary depending upon specific site conditions and geotechnical recommendations.

According to existing design standards for boardwalks within the Town of Apex, the following must comply:

› All fence material shall meet the requirement of Section 1050 of the NCDOT Standard Specifications
› Galvanize all steel parts and hardware in accordance with Article 1079 of the NCDOT Standard Specifications.

All chain link fence fabric, posts, rails, fitting hardware, and accessories shall be black vinyl coated in accordance with Article 1050 of the NCDOT Standard Specifications.

Concrete Approach Slab

The area between the slab and approach rail should be a 2 in granite screening or other material to prevent grass or weeds from filling in the space. This will mitigate the need for weed eating.

Figure 12.22 - Timber Boardwalk Deck – White Oak Creek Greenway, Cary, North Carolina

TYPICAL CROSS SECTIONS

Greenways (Preferred)

The existing design standards for paved greenways (asphalt and concrete) in the Town of Apex are 10 ft wide with 2-ft shoulders/shy zones. A 10- to 12-ft-wide paved greenway is recommended for the preferred greenway typical section, as it requires the least amount of long-term maintenance and greater eligibility from the widest variety of funding sources. Asphalt pavement is recommended based on site conditions within Apex, anticipated greenway use, and cost considerations. Limited sections of concrete pavement may be required to accommodate site conditions as necessary.

Trail Width

With the rise in popularity of greenways and user volumes, a variety of user types (walkers, runners, bicyclists, scooters, those with pets on leash, etc.) of all ages and abilities are now using the greenways in their everyday lives. To reduce user conflicts and increase safety, providing a 12-ft paved width along mainline greenways is desirable. For neighborhood connections to the mainline greenway, the paved width may be reduced to 10 ft. If a neighborhood connection is in an area where the mainline greenway has limited access for emergency vehicles, consideration should be given to increasing the width of the connection to 12 ft to improve emergency access. Cross slopes of the paved mainline greenways and neighborhood connections shall not exceed 2%.

Shoulder Width

Shoulder widths of 5 ft are desirable to help keep trees, roots, and vegetation off the edge of the trail. Shoulder cross slopes shall not exceed 4%. The inner 2 ft of the shoulder (adjacent to the paved greenway) shall be comprised of compacted granite screenings and the remaining outer 3 ft may be comprised of mowed grass. In areas of constrained topography where retaining walls are necessary to limit grading impacts, the total shoulder width may be reduced to only the 2 ft of compacted granite screenings. Shoulders should be kept clear of any obstacles to ensure the full greenway width remains usable.

Clearance Requirements

Per Section 903.J of Town Specifications, a minimum lateral clearance of 5 ft shall be maintained from the edge of the trail and vertical clearance of 10 ft from the trail surface, whenever possible. In shared greenway and utility corridors, the edge of pavement should be a minimum of 2 ft from the edge of any utility surface covers/plates (e.g., water valve covers, blow-offs, manholes), and boardwalk and bridge footings should be no closer than 4 ft from any utility. Trees shall be limbed up a vertical distance of 10 ft from the forest floor, within 5 ft from the outside edge of the trail. Tree limbs and dead trees that present a danger to pedestrians utilizing the trail shall be removed during construction, as directed by the Parks and Greenways Planner or other Town staff. Minimum vertical clearance from trail surface to the lowest horizontal structural member of bridges shall be 10 ft.
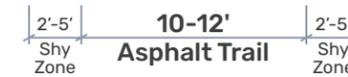

2'–5' Shy Zone | **10–12' Asphalt Trail** | 2'–5' Shy Zone

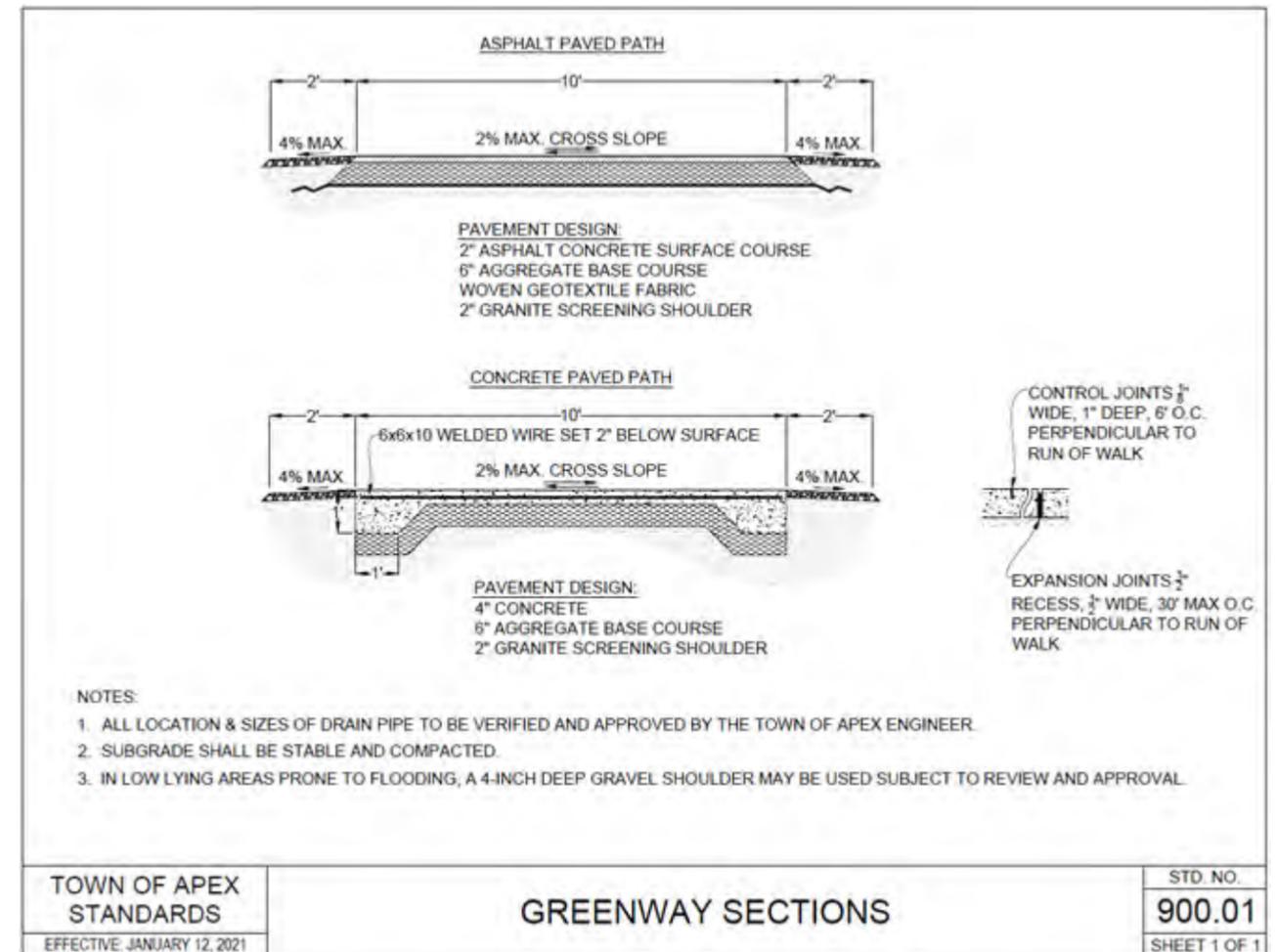Figure 12.23 - Greenway Typical Section (Preferred)

Figure 12.24 - Existing Design Standard for Greenways / *Town of Apex*
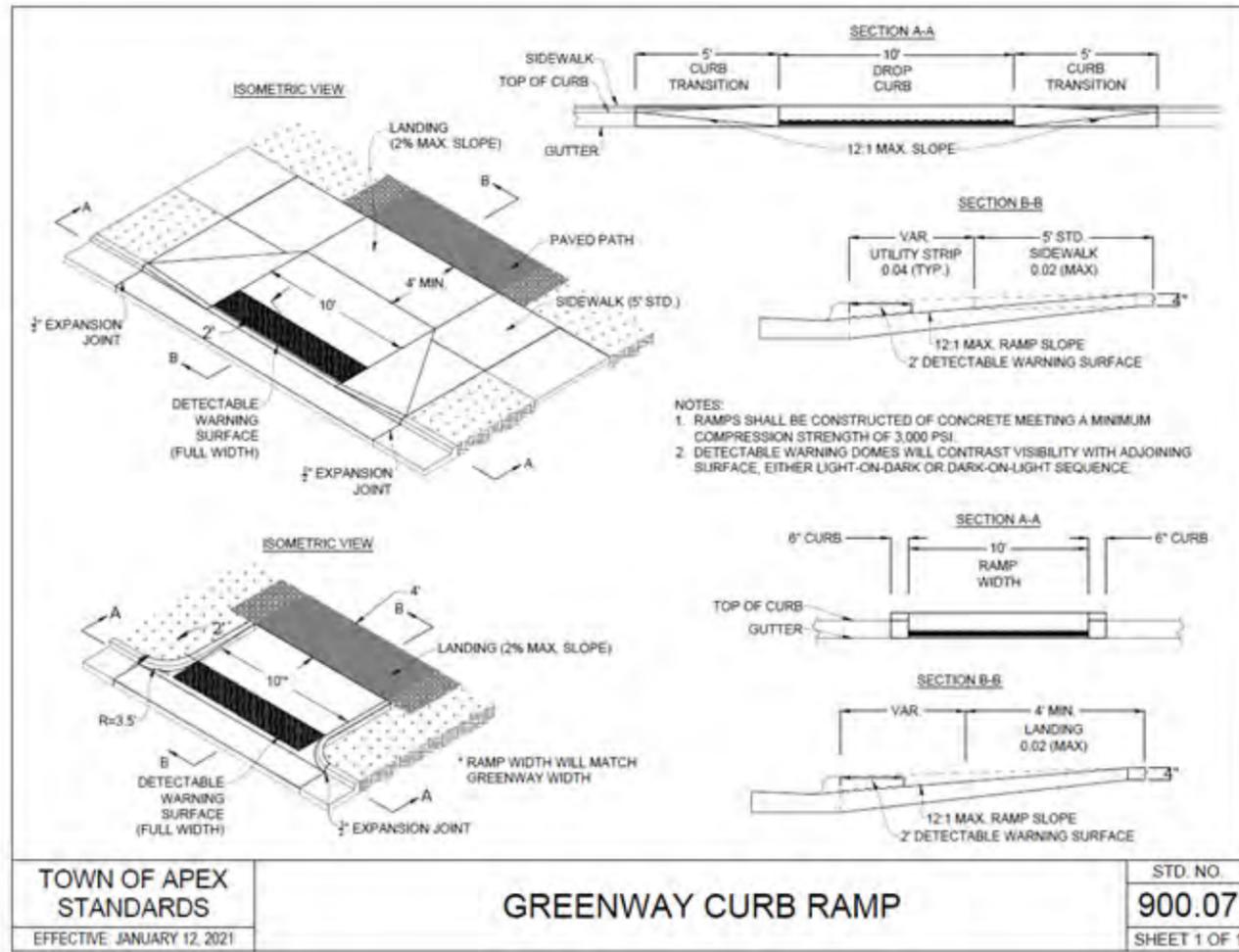
Figure 12.25 - Existing Design Standard for Existing Design Standard for Greenway Curb Ramps / *Town of Apex*

Greenways (Constrained)

A slightly narrower 8-ft-wide natural surface or asphalt greenway may be considered for segments within the greenway network that are constrained due to environmental or right-of-way issues. This typical section may also be considered for neighborhood connections to greenway corridors.

When considering the use of natural surface for constrained or connector segments, it is important to evaluate the overall life-cycle costs of unpaved surfaces, which may be higher due to long-term maintenance requirements. In constrained areas, shoulders or shy zones of 2 ft or greater should be kept clear of any obstacles to ensure full greenway width remains usable.
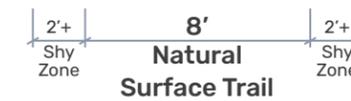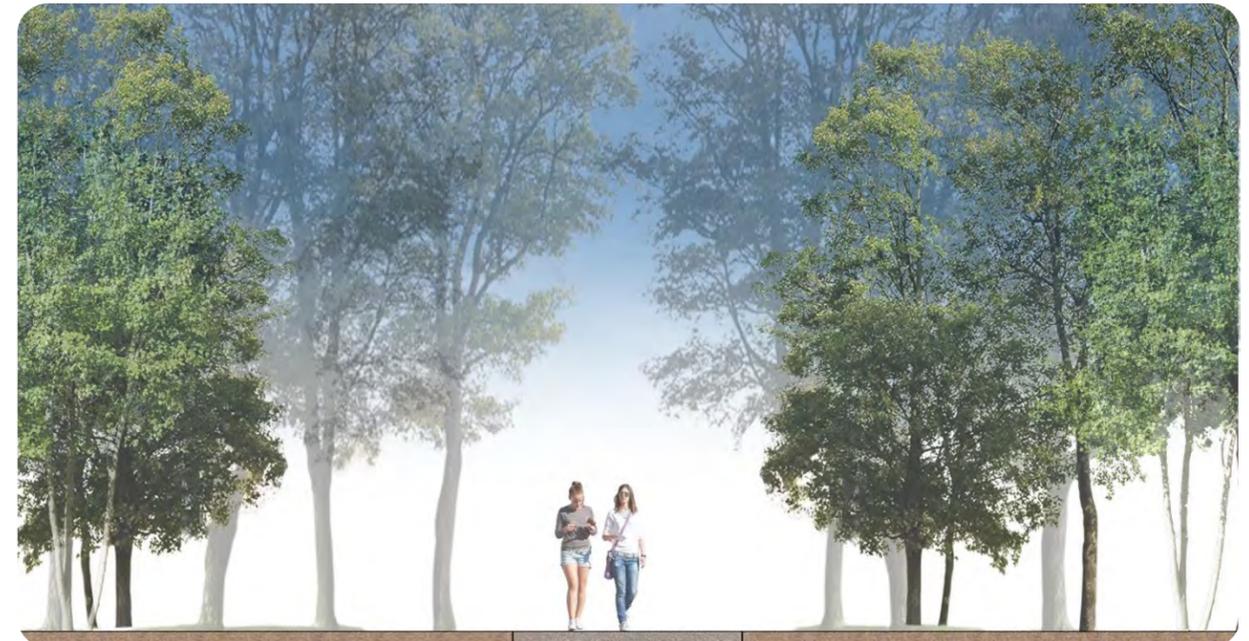
Figure 12.26 - Greenway Typical Section (Constrained)

Boardwalk

A 10- to 12-ft-wide clear width elevated boardwalk is recommended in areas where greenways cross streams or wetland areas. The clear width of the boardwalk shall be equal to the paved width of the adjacent greenway. For boardwalks on mainline greenways and along emergency access routes, a 12-ft clear width is desirable. For boardwalks on neighborhood connections to the mainline greenway, the clear width may be reduced to 10 ft. In no case shall the clear width of the boardwalk shall be less than the paved width of the adjacent greenway.For deck surface considerations, concrete provides greater friction to reduce the risks of slips and falls and reduces long-term maintenance burdens compared to those associated with other materials such as timber. Timber safety rails and handrails are shown with a timber pile substructure system in the typical section below. Boardwalk substructure design and materials may vary depending upon specific site conditions and geotechnical recommendations.
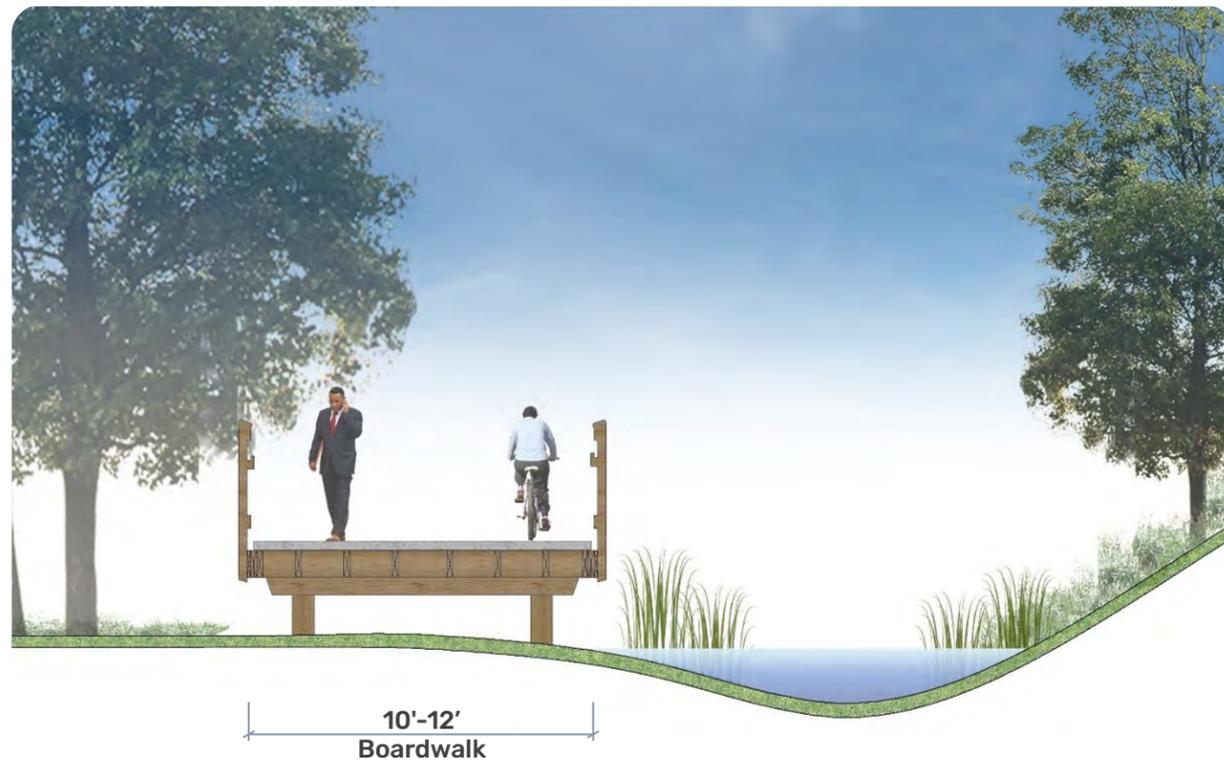

10'-12'
Boardwalk

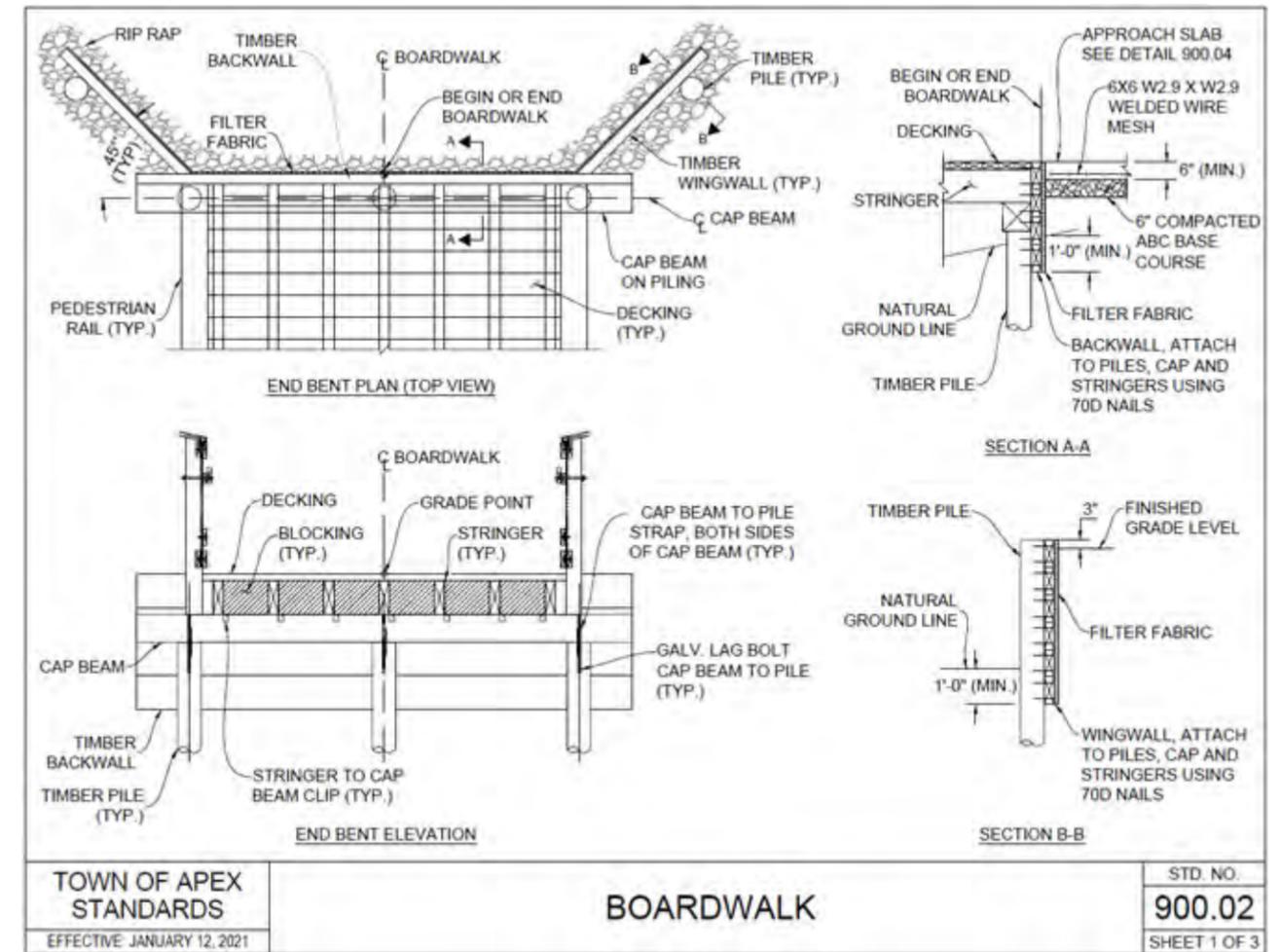Figure 12.27 - Boardwalk Typical Section

Figure 12.28 -Existing Design Standard for Boardwalks / *Town of Apex*
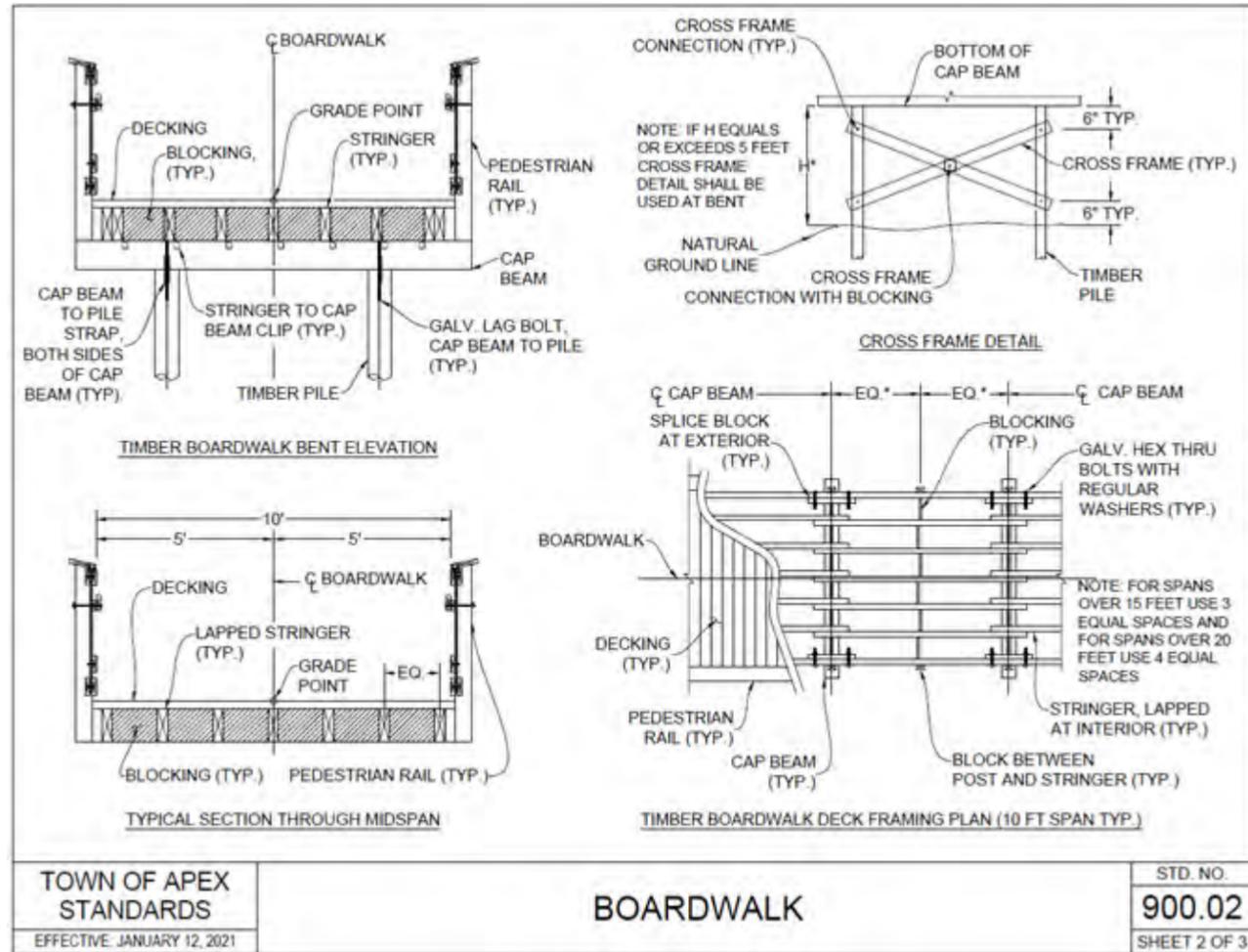
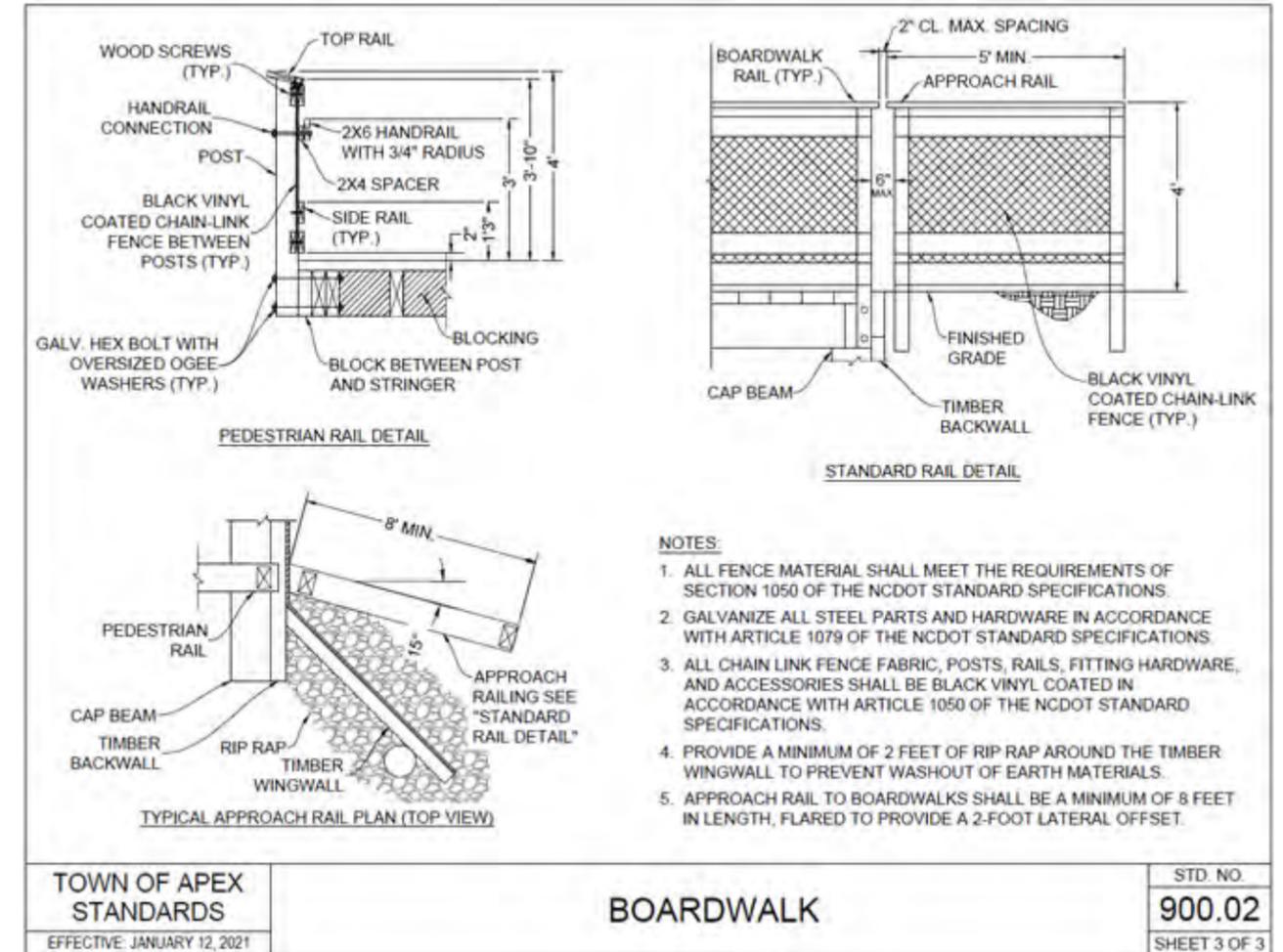Figure 12.29 –Existing Design Standard for Boardwalks / *Town of Apex*

Figure 12.30 –Existing Design Standard for Boardwalks / *Town of Apex*

Concrete Approach Slab

According to the existing design standards for concrete slabs within the Town, concrete approach slabs should be 6 inches wide with welded wire mesh and compacted ABC base course between the end of an asphalt path and beginning of a boardwalk. The Town should ensure the concrete approach slabs are designed in accordance with the adjacent structure's loading requirements.

The following design standards must be followed for a concrete approach slab within the Town:

› The approach slab shall be 6-inch-thick concrete pavement (4,000 PSI or greater) with a 6-inch by 6-inch welded wire mesh placed 3 inches from the bottom of the concrete slab.
› The length of the standard approach rail shall vary depending on site conditions.
› Where site conditions require safety rail on the approaching trail, tie standard approach rail to safety rail at the end of the flared transition.
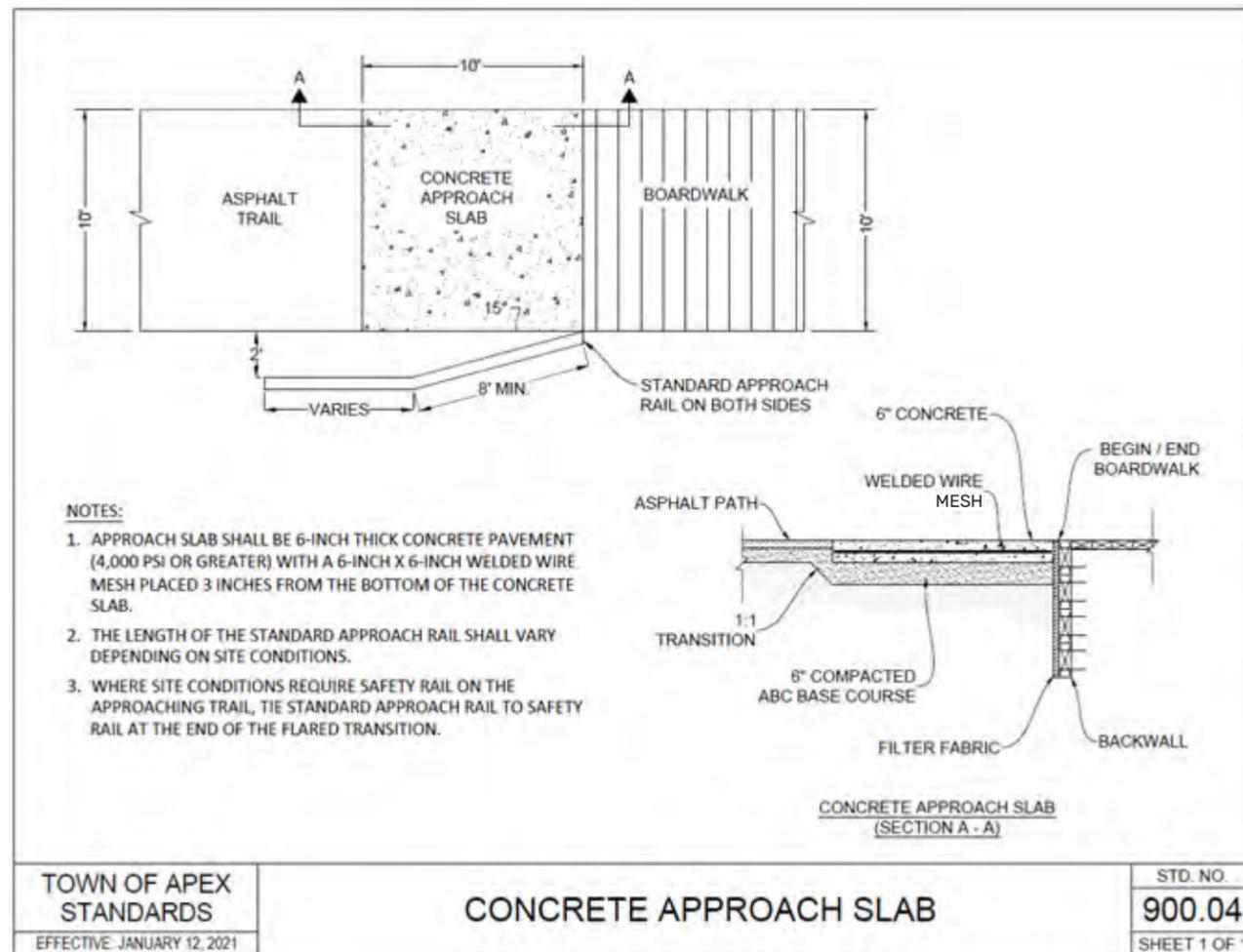

Figure 12.31 -Existing Design Standard for Concrete Approach Slabs / *Town of Apex*

Side Path

A 10- to 12-ft-wide paved side path is recommended along roadway corridors where the greenway network connects with the transportation network, allowing residents and visitors to reach destinations in residential neighborhoods and commercial areas. A slightly narrower 8-ft-wide side path may be considered for segments within the greenway network that are constrained due to environmental or right-of-way issues. Asphalt pavement is recommended based on site conditions within Apex, anticipated greenway use, and cost considerations. Limited sections of concrete pavement may be required to accommodate site conditions as necessary. A 5-ft planting strip is provided to separate users from motorized traffic on the adjacent roadway. The width of a planting strip may be reduced in highly constrained areas where curb and gutter are present. The width of a planting strip may also be increased depending on the roadway context.
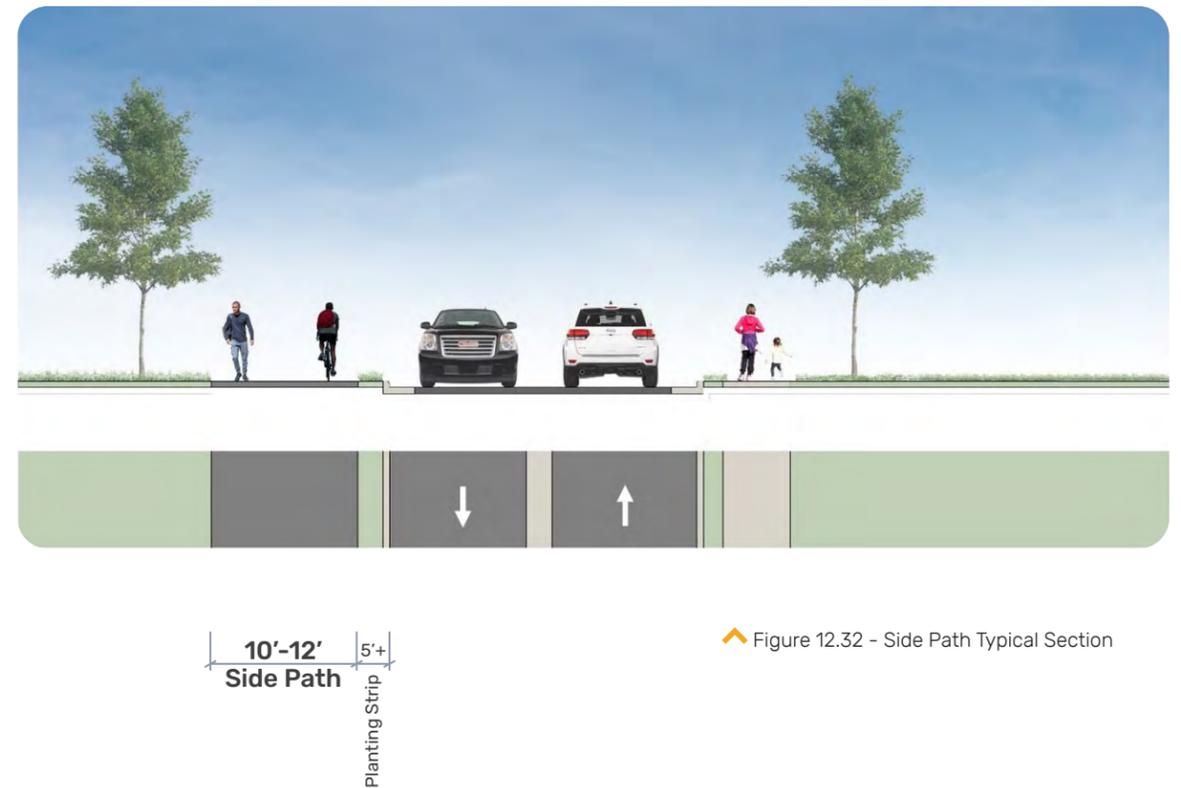

Figure 12.32 - Side Path Typical Section

Street-Side Greenway

A street-side greenway is a meandering shared-use path with a landscaped buffer along a roadway that provides a travel area for bicyclists and pedestrians. Street-side greenways are located outside of the roadway right-of-way and setback at least 5 ft from the roadway. According to Apex's current design standards, street-side greenways should be 10-ft-wide and constructed within a Town of Apex greenway easement with a 20 ft width minimum. The easement can overlay streetscape buffers without affecting setbacks or buffer widths, so long as required planting density can be achieved.
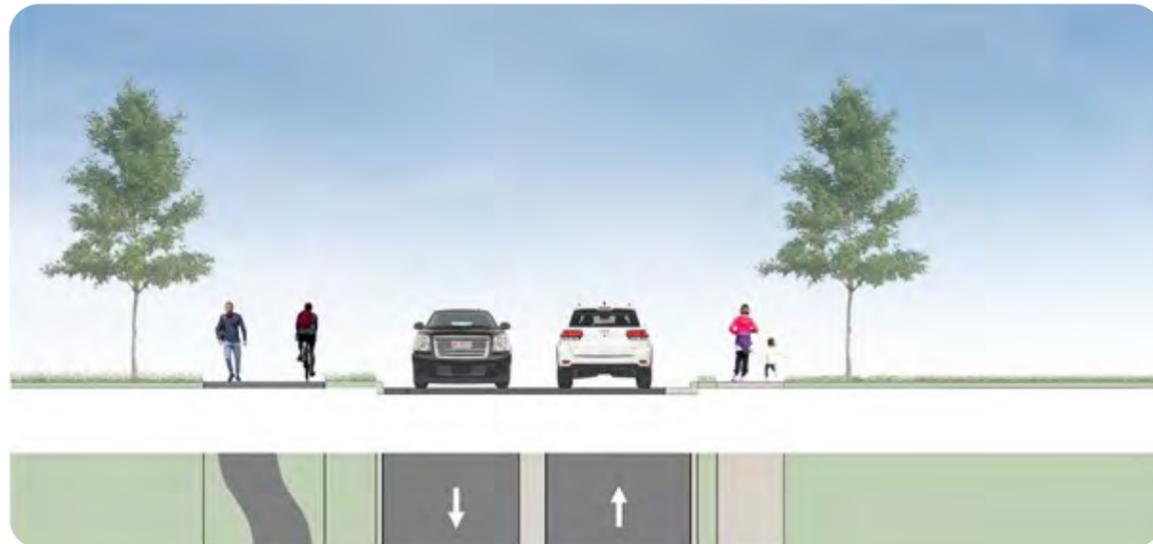

10'   5'+
Street-Side Greenway   Planting Strip / Setback

Figure 12.33 - Street-Side Greenway Typical Section

STREETSCAPE BUFFER

R = 27' MIN.

20'

10' TRAIL

PUBLIC GREENWAY EASEMENT

R/W

BACK OF CURB

ROADWAY

NOTES:
1. STREET-SIDE GREENWAYS SHALL BE LOCATED OUTSIDE THE RIGHT-OF-WAY WHERE PRACTICAL.
2. STREET-SIDE GREENWAYS MAY BE LOCATED WITHIN THE ROADWAY BUFFER.
3. A MINIMUM SEPARATION OF FIVE FEET SHALL BE MAINTAINED FROM THE BACK OF CURB IN CONSTRAINED LOCATIONS.
4. STREET-SIDE GREENWAYS SHOULD MEANDER WHERE PRACTICAL GIVEN PHYSICAL BARRIERS AND TOPOGRAPHICAL CONSTRAINTS.
5. PRIVATE UTILITIES, IRRIGATION INFRASTRUCTURE, LANDSCAPING, FENCES, SIGNS, MONUMENTS, OR ASSOCIATED EASEMENTS SHALL NOT BE ALLOWED WITHIN THE PUBLIC STREET-SIDE GREENWAY EASEMENT.
6. PUBLIC UTILITIES WITHIN THE PUBLIC STREET-SIDE GREENWAY EASEMENT MAY BE ALLOWED UPON APPROVAL OF TOWN STAFF.

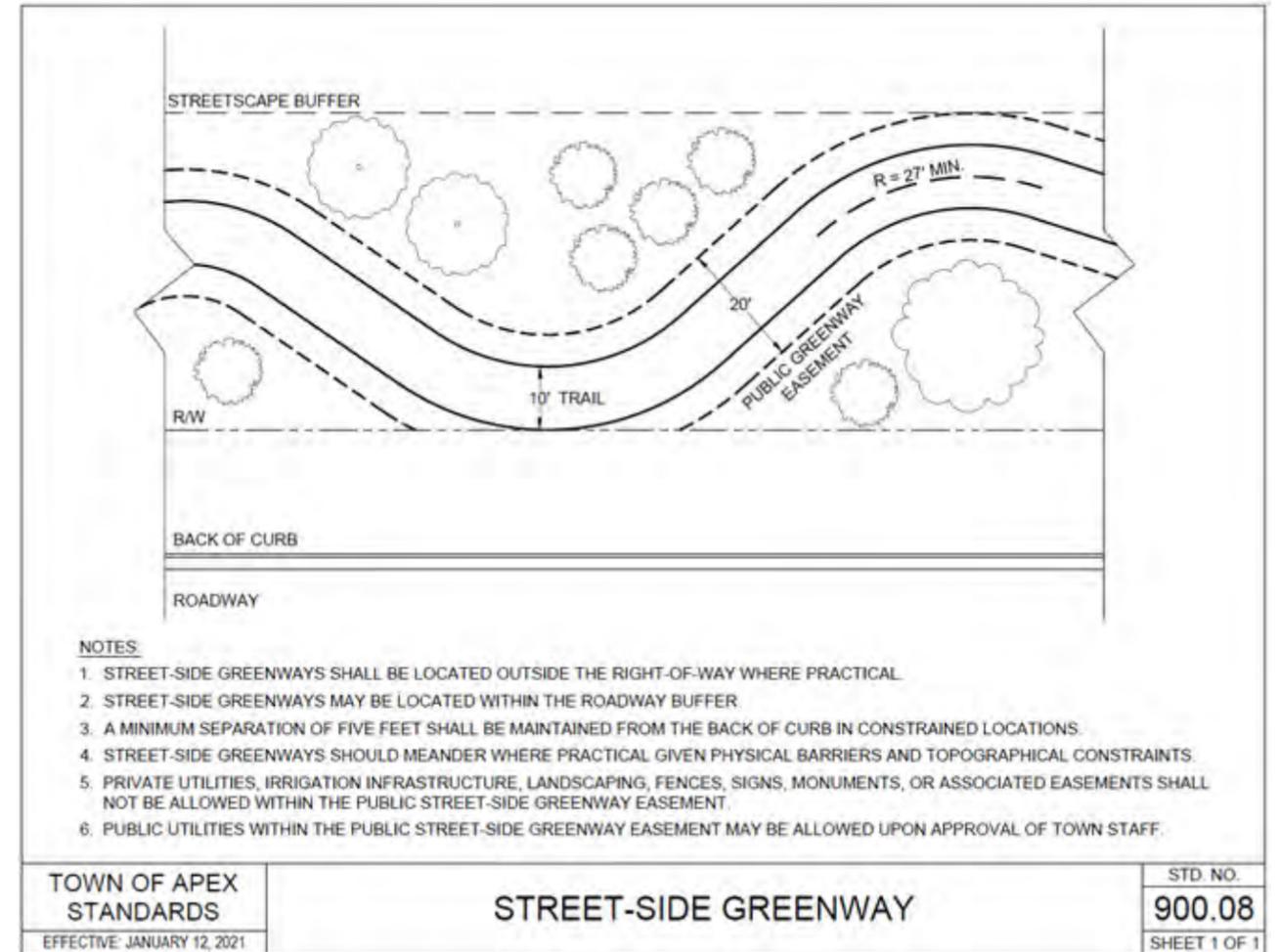| TOWN OF APEX STANDARDS	STREET-SIDE GREENWAY	STD. NO. 900.08
EFFECTIVE: JANUARY 12, 2021		SHEET 1 OF 1

Figure 12.34 - Existing Design Standard for Street-Side Greenways / *Town of Apex*

INTERSECTION TREATMENTS + CROSSINGS

Most conflicts between greenway users and motor vehicles occur at intersections. Current roadway design decisions increase exposure and risk for bicyclists and pedestrians, reduce user safety and comfort of the greenway network, and discourage biking and walking between destinations. As communities work to make facilities safer for users of all ages and abilities, intersection design is key. Apex Parks, Recreation and Cultural Resources coordinates with the Engineering and Planning Departments on intersection treatments where greenways and street-side greenways cross roadways.

Crosswalk

A crosswalk is a designated place for pedestrians and greenway users to cross a road at an intersection or mid-block crossing. High-visibility crosswalk markings, such as bar pairs, continental, and ladder are recommended to alert motorists of greenway crossing points across roadways. Inlay or thermoplastic tape is also recommended for highly reflective crosswalk markings. Crosswalks should be accompanied by Manual on Uniform Traffic Control Devices (MUTCD) pedestrian warning and advance yield signs W11-2, W16-7P, and R1-6 to alert motorists of a crosswalk.

Rectangular Rapid Flash Beacon (RRFB)

A Rectangular Rapid Flash Beacon (RRFB) is a pedestrian-actuated signal used in combination with pedestrian or greenway crossing warning signage to improve safety at uncontrolled, marked crosswalks. The device includes two rectangular-shaped yellow indications, each with an LED-array-based light source, that flash with high frequency when activated. RRFBs should be accompanied by MUTCD pedestrian warning and advance yield signs W11-2 and W16-7P to alert motorists of a crosswalk.

RRFBs are placed on both ends of a crosswalk. If the crosswalk contains a pedestrian refuge island or other type of median, an RRFB should be placed to the right of the crosswalk and on the median (instead of the left side of the crosswalk). RRFBs typically draw power from standalone solar panel units but may also be wired to a traditional power source.

Figure 12.37 - HAWK Signal

High Intensity Activated Crosswalk (HAWK)

A High-Intensity Activated Crosswalk (HAWK) signal, also known as a Pedestrian Hybrid Beacon, is a traffic control signal designed to help pedestrians and greenway users safely cross streets. HAWK signals, like other push-button activated traffic signals, stop traffic with a red signal, allowing pedestrians to cross with a WALK signal. In addition to the signal head displays, stop lines, and marked crosswalks are required at HAWK crossings. Advance stop lines should be used on multi-lane crossings to reduce the potential for additional crashes. HAWKs should be accompanied by MUTCD pedestrian warning and advance yield signs W11-2, W16-7P, R10-23, and R9-8 to alert motorists of the signalized pedestrian crossing.

Figure 12.35 - Crossing Over Renaissance Parkway - American Tobacco Trail, Durham

Figure 12.36 - Rectangular Rapid Flashing Beacon (RRFB) at a Trail Crossing

Shared-Use Bridge

A 10- to 12-ft clear width bridge is recommended for grade-separated crossings over streams and roadways to connect greenway sections at either end of the bridge. A variety of design types are available including truss bridges, girder (beam) bridges, arch bridges, suspension bridges, and cable-stayed bridges among others. Bridge design type selection will vary depending on specific site conditions, cost constraints, and potential impacts to traffic during construction. Safety rails and handrails should be provided in accordance with applicable building codes and NCDOT's Bridge Policy. Minimum vertical clearance over roadways shall be provided based on NCDOT's Bridge Policy requirements. For deck surface considerations, concrete provides greater friction to reduce the risks of slips and falls and reduces long-term maintenance burdens compared to those associated with other materials such as timber.

10-12'
Shared-Use Bridge

Figure 12.38 - Shared-Use Bridge Typical Section

Shared-Use Tunnel

A 10- to 12-ft clear width, concrete paved tunnel is recommended for grade-separated crossings under roadways to connect greenway sections at either end of the tunnel. The desired minimum vertical clearance inside the tunnel is 12 ft. Designs should maximize the vertical clearance within the tunnel to the extent practicable based on specific site constraints to maintain a sense of openness and security for users. Lighting inside the tunnel is recommended to ensure continual visibility and user safety. Consideration should also be given to the potential incorporation of dynamic lighting, vibrant murals, mirrors, or other public art elements that create a comfortable and inviting environment for users.

12'
Vertical
Clearance

10-12'
Shared-Use Tunnel

Figure 12.39 - Shared-Use Tunnel Typical Section

RECOMMENDED GREENWAY NETWORK

The comprehensive greenway recommendations provided in the adjacent map addresses the recreational and transportation needs of Apex residents and visitors. The proposed greenway system builds off recommendations developed in previous planning efforts and input expressed by community members and stakeholders during the planning process.
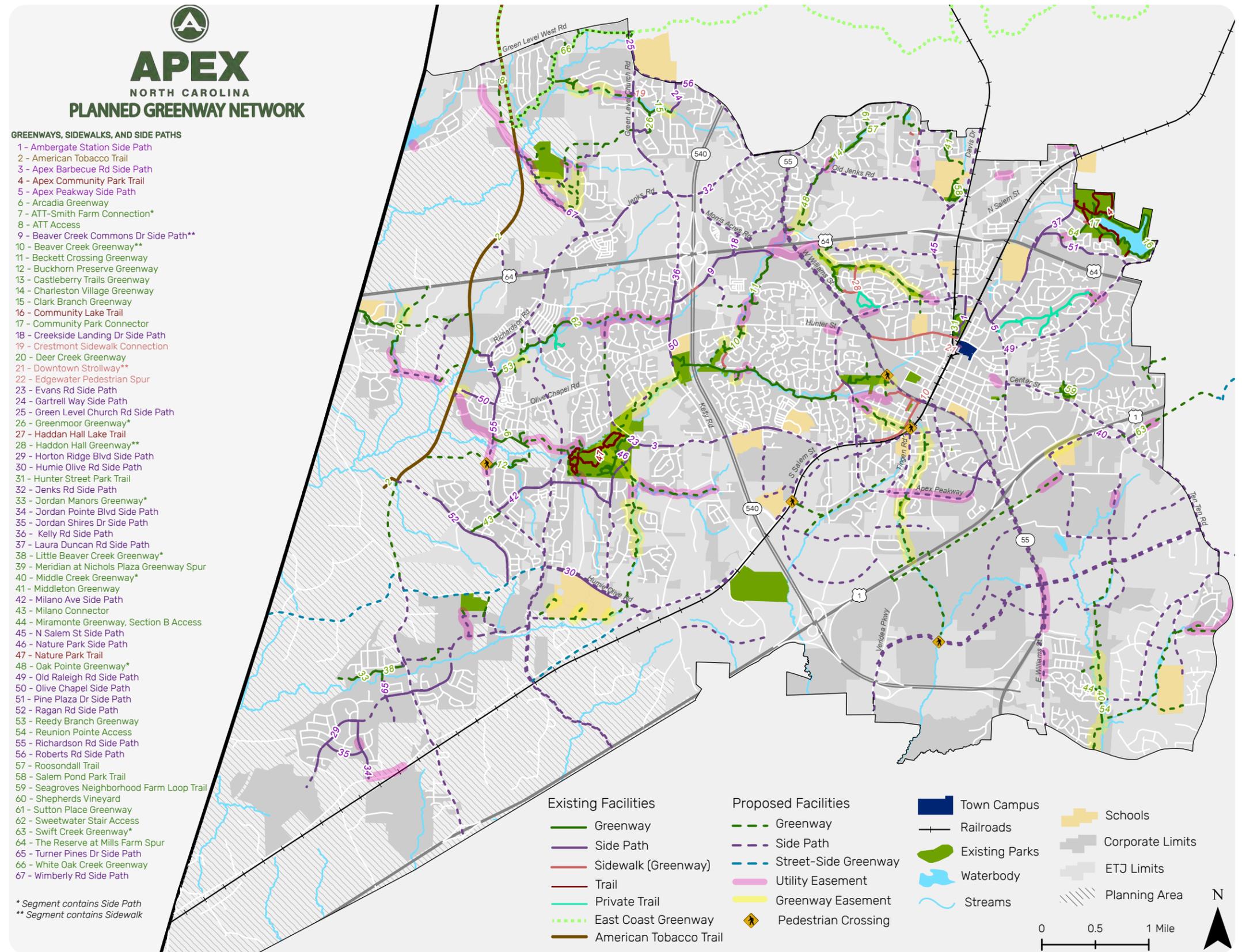

APEX
NORTH CAROLINA
PLANNED GREENWAY NETWORK

GREENWAYS, SIDEWALKS, AND SIDE PATHS

1 - Ambergate Station Side Path
2 - American Tobacco Trail
3 - Apex Barbecue Rd Side Path
4 - Apex Community Park Trail
5 - Apex Peakway Side Path
6 - Arcadia Greenway
7 - ATT-Smith Farm Connection*
8 - ATT Access
9 - Beaver Creek Commons Dr Side Path**
10 - Beaver Creek Greenway**
11 - Beckett Crossing Greenway
12 - Buckhorn Preserve Greenway
13 - Castleberry Trails Greenway
14 - Charleston Village Greenway
15 - Clark Branch Greenway
16 - Community Lake Trail
17 - Community Park Connector
18 - Creekside Landing Dr Side Path
19 - Crestmont Sidewalk Connection
20 - Deer Creek Greenway
21 - Downtown Strollway**
22 - Edgewater Pedestrian Spur
23 - Evans Rd Side Path
24 - Gartrell Way Side Path
25 - Green Level Church Rd Side Path
26 - Greenmoor Greenway*
27 - Haddan Hall Lake Trail
28 - Haddan Hall Greenway**
29 - Horton Ridge Blvd Side Path
30 - Humie Olive Rd Side Path
31 - Hunter Street Park Trail
32 - Jenks Rd Side Path
33 - Jordan Manors Greenway*
34 - Jordan Pointe Blvd Side Path
35 - Jordan Shires Dr Side Path
36 - Kelly Rd Side Path
37 - Laura Duncan Rd Side Path
38 - Little Beaver Creek Greenway*
39 - Meridian at Nichols Plaza Greenway Spur
40 - Middle Creek Greenway*
41 - Middleton Greenway
42 - Milano Ave Side Path
43 - Milano Connector
44 - Miramonte Greenway, Section B Access
45 - N Salem St Side Path
46 - Nature Park Side Path
47 - Nature Park Trail
48 - Oak Pointe Greenway*
49 - Old Raleigh Rd Side Path
50 - Olive Chapel Side Path
51 - Pine Plaza Dr Side Path
52 - Ragan Rd Side Path
53 - Reedy Branch Greenway
54 - Reunion Pointe Access
55 - Richardson Rd Side Path
56 - Roberts Rd Side Path
57 - Roosondall Trail
58 - Salem Pond Park Trail
59 - Seagroves Neighborhood Farm Loop Trail
60 - Shepherds Vineyard
61 - Sutton Place Greenway
62 - Sweetwater Stair Access
63 - Swift Creek Greenway*
64 - The Reserve at Mills Farm Spur
65 - Turner Pines Dr Side Path
66 - White Oak Creek Greenway
67 - Wimberly Rd Side Path

* Segment contains Side Path
** Segment contains Sidewalk

Existing Facilities
— Greenway
— Side Path
— Sidewalk (Greenway)
— Trail
— Private Trail
···· East Coast Greenway
— American Tobacco Trail

Proposed Facilities
-- Greenway
-- Side Path
-- Street-Side Greenway
— Utility Easement
— Greenway Easement
◆ Pedestrian Crossing

■ Town Campus
+ Railroads
■ Existing Parks
■ Waterbody
~ Streams

■ Schools
■ Corporate Limits
■ ETJ Limits
▨ Planning Area

N

0   0.5   1 Mile

Figure 12.40 – Planned Greenway Network Map

GREENWAY NETWORK PRIORITIZATION

Ten priority projects were identified by Town staff to guide the development of Apex's greenway network. The priority projects are listed below. While these priority projects should be strongly considered for development in the near or mid-term, opportunities to develop other projects in the recommended greenway network should also be considered as they arise.

1. Beaver Creek Greenway
2. Big Branch
3. Reedy Branch Greenway
4. Little Beaver Creek Greenway
5. Haddon Hall Greenway
6. Salem Pond Park Greenway
7. Camp Branch Greenway
8. Apex Community Park Greenway Connector
9. Clark Branch Greenway
10. Southwalk Greenway

APEX
NORTH CAROLINA

PLANNED GREENWAY NETWORK: PRIORITY PROJECTS

1. Beaver Creek Greenway
2. Big Branch
3. Reedy Branch Greenway
4. Little Beaver Creek Greenway
5. Haddon Hall Greenway
6. Salem Pond Park Greenway
7. Camp Branch Greenway
8. Apex Community Park Greenway Connector
9. Clark Branch Greenway
10. Southwalk Greenway

Existing Facilities
— Greenway
— Side Path
— Sidewalk (Greenway)
— Trail
— Private Trail
⋯ East Coast Greenway
— American Tobacco Trail

Proposed Facilities
-- Greenway
-- Side Path
-- Street-Side Greenway
— Priority Greenway Project

■ Town Campus
┼ Railroads
■ Existing Parks
■ Waterbody
~ Streams

■ Schools
■ Corporate Limits
■ ETJ Limits
▨ Planning Area

0   0.5   1 Mile

N

Figure 12.41 - Planned Greenway Network: Priority Projects Map

Prioritization Criteria

The development of the criteria for the prioritization of the top 10 priority projects was an iterative process. Notes on several viewpoints are provided below by Town departments and commissioners. Town Council and Parks, Recreation & Cultural Resources (PRCR) Advisory Commission's comments are outlined below.

The following comments were collected from Town Council and the PRCR Advisory Commission:

› The school system does not consider greenways as a "safe route". This term and rule come from the North Carolina Department of Public Instruction. It impacts only where Wake County Public School System needs to provide bus transportation. Greenways can flood and generally are not lit after dusk. It (safe route) is a technical term related to walk zones/bus zones.
› Wake County Public School System is interested in greenway connectivity.
› The Commission wants to provide scoring for school connectivity.
› Greenway connections to schools are more valuable and safer than sidewalk connections.
› Criteria should be weighted equally. Criteria related to connections to parks, existing greenways, equity, and project cost may rise above the others in terms of importance.
› Project cost may need to be its own category. The measurement for this would be a cost per mile rather than a point value based on magnitude.
› The Commission supports the prioritization methodology but want to know who will complete the scoring. They are also concerned that the number of criteria may make it challenging to evaluate consistently over time.
› For residential land uses, quantify the number of units that are easily walkable to the greenway and use the metric of total units per greenways mile.
› The Commission would like to know how the criteria are aligned with external funding sources that may have their own criteria.
› The list of criteria does not include the environmental impact of greenway construction and maintenance/repair costs over time (e.g., environmentally sensitive areas require elevated boardwalks or similar materials that result in initial higher costs and would have a substantially higher long-term cost for repair and replacement when compared to crushed gravel or asphalt surfacing).

The Town revised the criteria with the ranking measurements and weights and asked the Engineering and Planning staff to provide a second review. Their comments on the process are listed below.

› Staff supported the prioritization approach to lead to the feasibility studies.
› There is concern that "improving overall bicycle and pedestrian safety" is too similar to "improving areas with high rates of bicycle and pedestrian crashes".
› Connections to transit are weighted low, but staff want to identify projects that score high on the criteria in the future. Funding sources vary when projects provide access to transit.
› In the past, if a project was already awarded outside funding, it was automatically listed as a high-priority project.
› Staff are interested in collaborating on the alternative routes criteria when they receive resident requests for sidewalks.
› Staff would like for the Town to consider if community input and requests should weigh more or less than the equity criteria. They question if the low ranking "Town received no public comments identifying needs or concerns along the corridor" is really equitable.

These comments were used to construct a two-phase process for prioritization. Each of the two phases are described on the following pages.

Prioritization Phase I:

The first scoring is for funding feasibility studies through the annual Capital Improvements Project allocation. The following criteria were applied to the greenway priority projects by the project team during phase I of the prioritization process:

› Connects to existing greenways, bicycle, and pedestrian facilities
› Connects to parks and/or conservation land or provides access to recreation amenities
› Connects to high-density residential land uses
› Improves overall bicycle and pedestrian safety
› Improves areas with high rates of bicycle and pedestrian crashes
› Equity
› Connects to activity centers: Downtown, Community Center and Senior Center, and/or the Recreational Activity Center
› Connects to schools
› Available land/easement
› Connects to transit
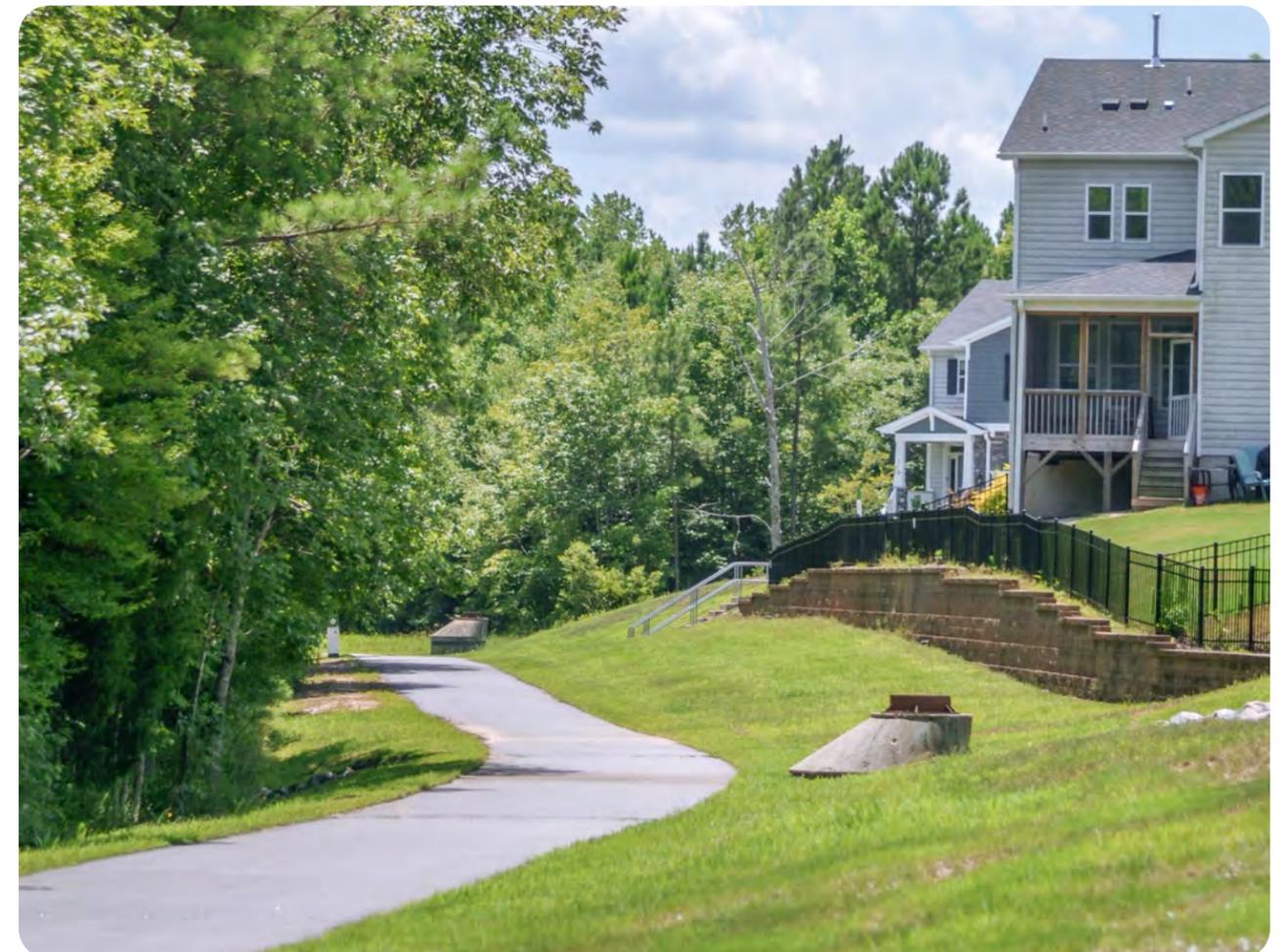› Connects to high-density employment/commercial land uses
› Community input/request

Figure 12.42 - Middle Creek Greenway

Prioritization : Feasibility

CRITERIA	DESCRIPTION	RANK	MEASUREMENT	POINTS
Connects to Existing Greenways, Bicycle and Pedestrian Facilities	Greenway/side path corridor provides connections to existing bicycle and pedestrian facilities.	High	Corridor closes a gap between existing greenways or side paths.	20
		Medium	Corridor connects to existing sidewalks or bike lanes.	10
		Low	Corridor does not connect to existing bike/ped facilities.	0
Connects to Parks and / or Conservation Land or provides Access to Recreation Amenity	Greenway/side path corridor provides connections to parks and/ or conservation land or provides access to open space such as reserved greenway corridors, providing recreation amenities to residents	High	Corridor segment connects to a park or provides first or only recreation amenity (such as a greenway or conservation area) within a quarter mile.	20
		Medium	Corridor segment connects to existing greenways, side paths, sidewalks or bike lanes that provide access to a park and/or conservation land.	10
		Low	Corridor segment does not connect to a park.	0
Connects to High-Density Residential Land Uses	Greenway/side path corridor connects to high-density residential land uses (as defined in Advance Apex 2045 Future Land Use Plan).	High	Corridor connects to a high density residential land use area.	15
		Medium	Corridor connects to a medium density residential land use area.	10
		Low	Corridor connects to a low/rural density / or does not connect to a residential land use area.	0
Improves Overall Bicycle and Pedestrian Safety	Greenway/side path corridor provides bicycle and pedestrian safety improvements along and/or across roadways and water ways and provides connections to the American Tobacco Trail and adjacent communities.	High	Corridor is along or crosses a highway, thoroughfare, railroad, or connects to the ATT.	15
		Medium	Corridor is along or crosses a collector street or floodway, or connects to an adjacent community.	10
		Low	Corridor is along or crosses a residential street or creek.	0
Improves Areas with High Rates of Bicycle and Pedestrian Crashes	Greenway/side path corridor provides safety improvements in an area with a history of bicycle and pedestrian crashes.	High	5+ bicycle and pedestrian crashes.	15
		Medium	1-4 bicycle and pedestrian crashes.	10
		Low	0 bicycle and pedestrian crashes.	0
Equity	Greenway/side path corridor provides connections to vulnerable census tracts.	High	Corridor is within a census tract with a social vulnerability index rate over 0.35.	10
		Medium	Corridor is within a census tract with a social vulnerability index rate between 0.25-0.35.	5
		Low	Corridor is within a census tract with a social vulnerability index rate under 0.25.	0
Connects to Activity Centers: Downtown, Community and Senior Center, and / or the Recreational Activity Center	Greenway/side path corridor provides connections to Apex's activity centers.	High	Corridor connects to an activity center.	10
		Medium	Corridor connects to existing sidewalks or bike lanes that provide access to an activity center.	5
		Low	Corridor does not connect to an activity center.	0
Connects to Schools	Greenway/side path corridor provides connections to schools.	High	Corridor connects to a school.	10
		Medium	Corridor connects to existing sidewalks or bike lanes that provide access to a school.	5
		Low	Corridor does not connect to a school.	0
Available Land / Easement	Greenway/side path corridor is proposed within an existing Town of Apex easement.	High	Corridor is proposed within an existing Town of Apex greenway easement.	10
		Medium	Corridor is proposed within an existing Town of Apex utility easement.	5
		Low	Corridor is not proposed within an existing easement.	0
Connects to Transit	Greenway/side path corridor provides bicycle/pedestrian connections to transit stops.	High	Corridor connects to a transit stop.	5
		Medium	Corridor connects to existing sidewalks or bike lanes that provide access to a transit stop.	2
		Low	Corridor does not connect to a transit stop.	0
Connects to High-Density Employment / Commercial Land Uses	Greenway/side path corridor connects to high-density office, industrial employment, and/or commercial services land uses (as defined in Advance Apex 2045 Future Land Use Plan).	High	Corridor connects to high density office employment/ industrial/ commercial services land use area.	5
		Medium	Corridor connects to medium density office employment/ industrial/ commercial services land use area.	2
		Low	Corridor connects to a single or no office employment/ industrial/ commercial services property.	0
Community Input / Requests	Greenway/side path corridor addresses community requests, input and /or concerns for improved bicycle and pedestrian facilities.	High	Town received 5 or more public comments identifying needs or concerns along the corridor.	5
		Medium	Town received 1-4 public comments identifying needs or concerns along the corridor.	2
		Low	Town received no public comments identifying needs or concerns along the corridor.	0

The top three projects identified in Prioritization Phase I will determine which projects from this plan will be selected for a feasibility study. Projects that undergo a feasibility study will then be placed in Prioritization Phase II. This scoring process will provide guidance on prioritizing projects to move forward with design development and construction. The top ten projects identified by Town staff are scored in Prioritization Phase I and ranked below. Each project may receive a maximum score of 140 points.

1. Beaver Creek Greenway (80 points)
2. Big Branch (77 points)
3. Reedy Branch Greenway (75 points)
4. Little Beaver Creek Greenway (75 points)
5. Haddon Hall Greenway (70 points)
6. Salem Pond Park Greenway (70 points)
7. Camp Branch Greenway (65 points)
8. Apex Community Park Greenway Connector (65 points)
9. Clark Branch Greenway (65 points)
10. Southwalk Greenway (62 points)

Prioritization Phase II:

Prioritization results from phase II will be used to request funding for design development and construction. The following criteria will be applied to the greenway priority projects by Town of Apex staff during phase II of the prioritization process:

› Original prioritization score
› Feasibility study completed
› Environmental impacts
› Project costs
› Alternative routes
› Maintenance
› Available land/easement
› Funding
› Equity

Figure 12.43 - Image pictured to the right is the greenway at Apex Community Park

Prioritization : Design

CRITERIA	DESCRIPTION	RANK	MEASUREMENT	POINTS
Original Prioritization Score	Scoring Range of project prior to completion of a Feasibility Study.	High	The project scored between 140-110.	5
		Medium	The project scored between 109-80.	1
		Low	The project scored below 79.	0
Feasibility Study Completed	Feasibility study of corridor completed providing site specific in-depth analysis of constraints and opportunities for trail development.	High	The feasibility study indicated project provides opportunities for project implementation.	15
		Medium	The feasibility study indicated project has constraints that impact project implementation.	10
		Low	The feasibility study indicated it is not possible to implement project as indicated in Master Plan.	0
Environmental Impacts	Are there environmental impacts identified in the Feasibility Study and are there measures available to mitigate the impacts.	High	The feasibility study indicated project has limited environmental impacts for project implementation.	15
		Medium	The feasibility study indicated project has environmental impacts that requires mitigation and/or project specific items implementation that are consistent with standard development, specifications and details.	10
		Low	The feasibility study indicated environmental impacts that greatly inhibit project implementation.	0
Project Cost	Greenway corridor cost estimates are reflective of a budget that the Town can feasibly invest in the project.	High	The magnitude of costs meets the budget for project implementation.	15
		Medium	The magnitude of costs meets the budget with additional funding assistance.	10
		Low	The magnitude of costs exceeds the budget for project implementation.	0
Alternative Routes	Greenway corridor route provides an alternative for other bike/ ped system prioritized requests.	High	The corridor would provide a bike/ped route creating connectivity and can be implemented in a manner that would allow it to meet requests for other requested bike/ ped facilities.	10
		Medium	The corridor could provide a bike/ped route creating connectivity and if implemented it generally meets requests for other requested bike/ ped facilities but through a more circuitous route.	5
		Low	The corridor does not provide an alternate for a requested bike/ped route.	0
Maintenance	The location of the trail, type of trail construction (Asphalt, Concrete, Boardwalk, Bridges), shoulders and access have a impact on routine and long-term maintenance costs.	High	The project is easily accessible, over 75% pavement at-grade and is outside of riparian areas and shared utility corridors.	10
		Medium	The project has minimal access issues, between 50-75% is pavement at-grade and over 50% is outside of riparian areas and shared utility corridors.	5
		Low	The project has restricted access for maintenance/ equipment, has less than 25% pavement at-grade and is within riparian areas and shared utility corridors.	0
Available Land / Easement	Greenway/side path corridor is proposed within an existing Town of Apex easement.	High	Corridor is proposed within an existing Town of Apex greenway easement.	10
		Medium	Corridor is proposed within an existing Town of Apex utility easement which has opportunities to provide necessary area required for greenway construction.	5
		Low	Corridor is not proposed within an existing easement.	0
Funding	Greenway corridor/ project scope aligns with alternative funding priorities/ opportunities.	High	The project has been awarded outside funding for project implementation.	10
		Medium	The project scope achieves desired objectives to be a strong candidate for award of additional funding assistance from outside of the Town of Apex.	5
		Low	The project does not fit alternative funding objectives.	0
Equity	Greenway/side path corridor provides connections to vulnerable census tracts and/ or provide facilities for underserved portions of the Town	High	Corridor is within a census tract with a social vulnerability index rate over 0.35 and/or provides for underserved populations of the Town with limited or no access to parks and recreation facilities.	10
		Medium	Corridor is within a census tract with a social vulnerability index rate between 0.25-0.35 and /or provides for underserved populations of Town that must drive 5 or more minutes to have access to parks and recreational facilities.	5
		Low	Corridor is within a census tract with a social vulnerability index rate under 0.25 and population has access to parks and recreation facilities either through existing greenways or within a 5-minute drive.	0

RECOMMENDED GREENWAY POLICIES + AMENITY GUIDANCE

In tandem with infrastructure recommendations, greenway policies and amenities improve user safety and experience and enhance recreational and multi-modal accommodations in the Town's ordinances and codes. A summary of recommended policies and an overview of key greenway amenities for the Town of Apex are provided below.

Policy Recommendations

POLICY RECOMMENDATION	DESCRIPTION
Add Definitions for Active Transportation Facilities in the UDO	The Town should add a glossary of common active transportation terms that include definitions for each facility type (i.e., bike facilities, sidewalks, and greenways) within the UDO. Greenways are currently defined in the UDO in Section 4.3.4 Recreational Uses, but the UDO does not list street-side greenways or side path facilities. Consider extracting the facility type descriptions in the Advance Apex 2045 Transportation Plan.
Adopt a Complete Streets Ordinance and/or Program	The Town of Apex should adopt a municipal Complete Streets Policy, similar to NCDOT's statewide policy, to guide multi-modal improvements for the local street network. This policy recommendation was documented in the Advance Apex 2045 Transportation Plan. The City of Raleigh is a local example of a municipality that has adopted a similar policy. The City of Raleigh recently adopted a Complete Streets Policy and initiated a Complete Streets Implementation Program with the goal to construct projects that improve safety, access, mobility, and connectivity of existing streets for all users. Improvements made under this program may include, but are not limited to: › Sidewalks and pedestrian safety improvements, such as traffic signals, roundabouts, curb extensions, high visibility crossings, and shared-use pathways; › Bicycle safety improvements, such as bike lanes, separated bicycle facilities, sharrows, and signal detection; › ADA compliance and accessibility; › Transit infrastructure, such as bus shelters, benches, trash cans, and pads; › Street trees, landscaping, pedestrian-level lighting, street furniture; › Adequate storm water/drainage facilities; › Updated traffic markings, and signage.

POLICY RECOMMENDATION	DESCRIPTION
Continue to Build Infrastructure Like Greenways, Side Paths, and Sidewalks with Site Development Projects	The Town of Apex should continue to ask developers to construct planned side paths, greenways, trails, and sidewalks as a requirement to development in municipal limits. Planning staff should coordinate with developers to provide guidance on ordinance requirements and processes. In addition, they may also include specifications for greenway design standards. Planning and Parks, Recreation, and Cultural Resources staff should also refer to adopted plans for opportunities to fill in gaps within the bicycle and pedestrian system.
Update the Town's Design Guidelines for Greenways	Town staff should update the Town of Apex Standard Specifications and Standard Detail guidance (Section 900 Greenway Trails) to include context-sensitive design standards and consider the character of the area that a greenway (or similar facility) is constructed within. Greenways often traverse many different land uses and communities so it will be important for the Town to focus on incorporating consistent design elements, wayfinding signage, and amenities that will help contribute to a sense of place.
Continue to Assess, Plan, and Fund Active Transportation Infrastructure Needs	The Advance Apex 2045 Transportation Plan recommends to continue to assess, plan, and fund infrastructure needs through the annual capital needs assessment, capital improvements program, and capital improvements budget process. Continue to document greenway projects in a Capital Improvements Plan and include project justifications that state greenways and open space will need to be acquired and/or constructed to maintain the current level of recreation service.
Adopt an Active Transportation Overlay District	The Town should make zoning updates such as an active transportation code for new development or reconstruction projects. The addition of an overlay district could mandate the inclusion of active transportation infrastructure as part of mitigation efforts to prevent flooding within the community. The district could include all adopted linear greenway network projects mapped within the Town.

Lighting

Well-placed and properly maintained lighting can improve visibility, increase overall greenway access, and give users a greater sense of security. If lighting is implemented along the greenway network, consider the following lighting guidance:

› Meet the American Association of State Highway and Transportation Officials' (AASHTO) Guide for the Development of Bicycle Facilities requirements for shared-use paths.
› Light only what is needed and comply with dark-sky requirements to help minimize light pollution, which impacts people, animals, and the environment.
› Use lighting that is of appropriate scale and spacing to ensure adequate coverage.
› Place lights where recommended for safety at tunnels and overpasses; parking areas; bridges; gathering places; along streets; crosswalks; where a greenway crosses another path or sidewalk; and on signage.

A variety of lighting types are available including wired, battery-powered, and solar-powered options. Each lighting option offers unique advantages or disadvantages regarding cost, maintenance burden, and environmental impacts. For example, dark sky lighting fixtures are designed to direct light to the ground instead of to the sky. In return, this type of fixture helps decrease light pollution and can be placed near environmentally sensitive areas.

The use of colored and/or dynamic lighting schemes in select areas (such as tunnels and bridges) can enhance the user experience, contribute to the overall brand/identity of the greenway network, and raise awareness of the facility to the traveling public.

Wayfinding

Wayfinding consists of comprehensive signage, mapping, and marking systems that help inform and educate users as they make their way to, from, and along the greenway. A cohesive wayfinding system across the corridor will enhance access, provide a greater sense of security and comfort, promote desired user behaviors, improve awareness of nearby greenway and transit networks, and reinforce the brand and/or identity of the facility. The following principles should guide the continued implementation of Apex's wayfinding system:

› CONSISTENCY - User experience should feel consistent and continuous across the entire corridor, regardless of jurisdiction.
› CONNECTIVITY - A primary function of wayfinding is to connect users to destinations and other routes. It should clearly communicate current locations, access points, adjacent streets, distances, directions, destinations, estimated travel times, and historical/cultural/environmental information where applicable.
› IDENTITY - A strong wayfinding identity will make the greenway more recognizable and memorable to visitors and residents alike. Custom designs and graphics should be used to create a unique identity which reflects the goals of the greenway network in Apex and the character of the region it will serve.
› PREDICTABILITY - Apply wayfinding in a predictable manner (including sign placement, design, and content) to allow users to quickly understand the information being presented. For users, this builds trust, increases comfort, reduces stress, and provides a welcoming and low-stress experience as they navigate the greenway.
› SIMPLICITY - Present information in a clear, logical, universal way to reach the widest possible demographic. The longer it takes to understand the information presented, the less likely the system will be used or relied upon.

Figure 12.44 - Tunnel Lighting on Honeycutt Creek Trail - Raleigh, NC

Figure 12.45 - Town of Apex Wayfinding Signage along the Middle Creek Greenway
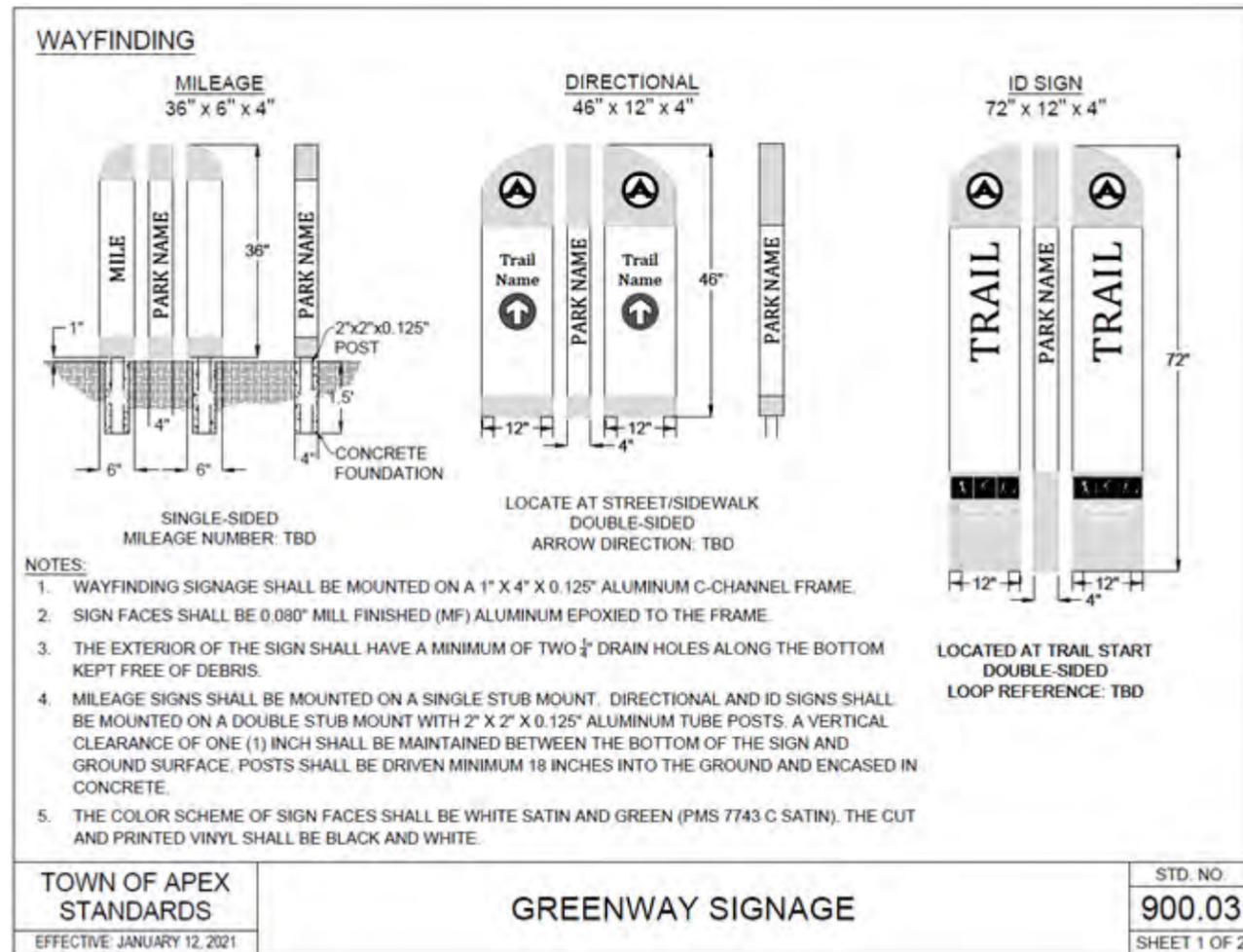
Figure 12.46 - Existing Standards for Greenway Signage / *Town of Apex*

Branding

Popular greenway systems establish strong brands and identities to drive recognition at the local and regional levels and beyond to attract users. A consistent, high-quality user experience may be achieved through repeating brand elements such as typical sections (including materials selection), wayfinding (including logos, graphics, and color palette), lighting, furnishings, and other amenities. At a minimum, good signage will increase the awareness of greenways within a community, even outside of the system itself. Effective network signage should strike a balance between establishing a consistent look and feel, promoting the system, and respecting individual greenway corridors.

There are a variety of methods available to improve the branding and wayfinding of a greenway network beyond the installation of traditional signage. Logos can be painted on greenway surfaces, and smaller signs or stickers can be added to existing street-scape elements like benches, bike racks, trash receptacles and street signs to catch the attention of passers-by and entice new users into the system. These efforts can complement the installation of dedicated network signage, or in some cases, make more expensive signage unnecessary. A branding study is recommended with community input to establish these elements to be used along the greenway system within the Town of Apex.

Figure 12.47 - Greenway Branding - Greensboro, NC

Figure 12.48 - New Hope Church Road Trailhead - Cary, NC

Trail heads

Trail heads provide public access points to trails and greenways. They are typically in places where users begin or end their journeys and where they get oriented to the greenway or greenway network. While there are minor access points along greenways such as road crossings, within neighborhoods, or where two greenways intersect, a trailhead tends to be a developed site, purposefully designed to provide amenities to greenway users such as parking, signage, informational kiosks, restrooms, drinking fountains, bike racks, bike repair stations, seating, public art, landscaping, and trash receptacles.

Guidance for trailhead placement includes:

› Endpoints are natural places to locate trail heads, but any place where a large volume of users is expected should be considered as a possible trailhead location.
› Utilize areas where amenities already exist, such as parks.
› Consider placing a trailhead where greenways intersect.
› Consider placing a trailhead within residential neighborhoods. Trail heads that are located within neighborhoods should be designed to be compatible with their surrounding uses.
› Consult with the community and seek public input on locations. Residents may have insights or preferences for areas that best meet user's needs.

At all greenway access points, including trail heads, enhance user safety by implementing access management tools. Bollards, gates, fences, landscaping, and signage can prevent motorized vehicles from accessing the greenway. These barriers should be accessible for persons with disabilities to ensure that users of all ages and abilities can access the greenway. Barriers should also allow emergency or maintenance vehicles to access the greenway.
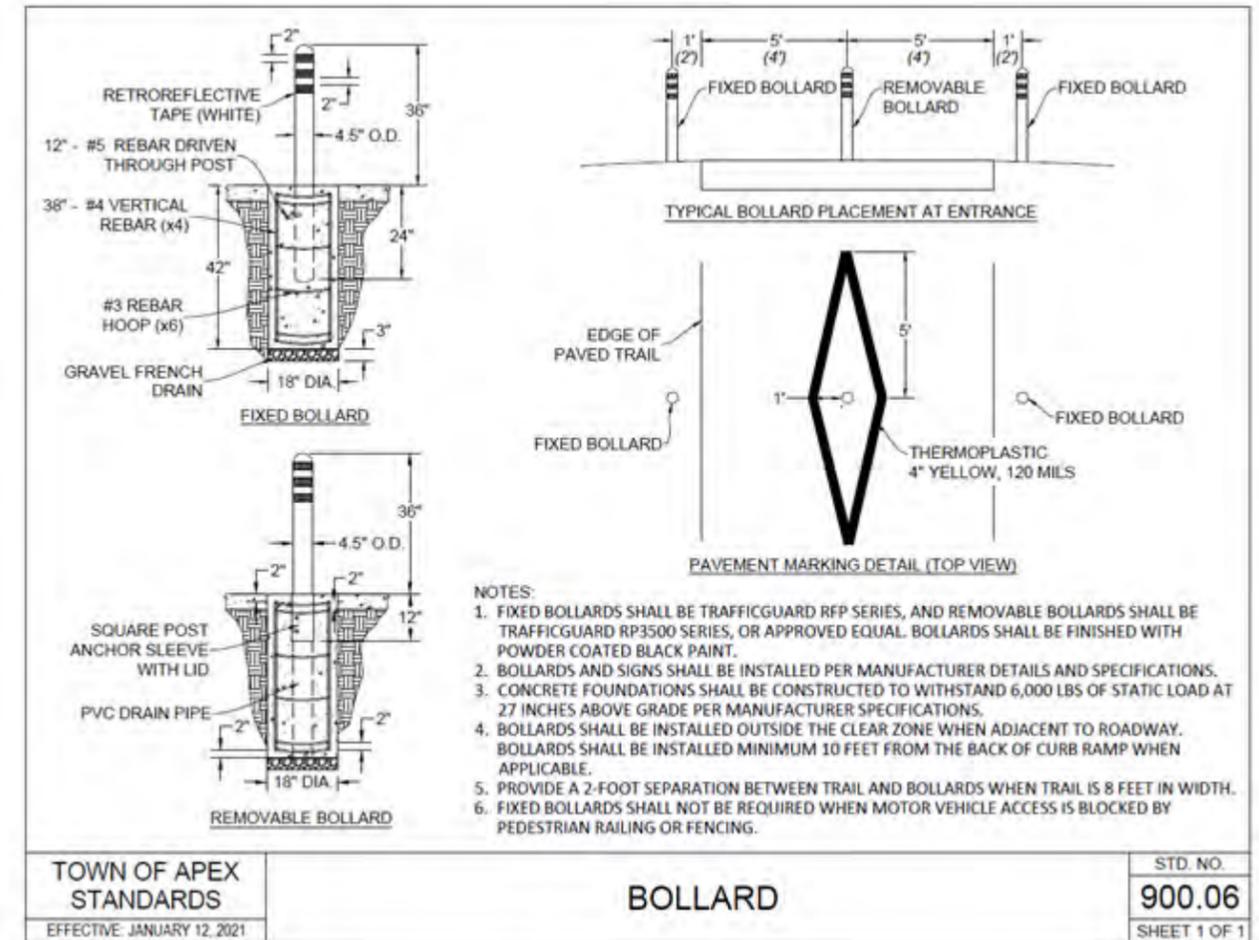
Figure 12.49 - Existing Standards for Bollards / *Town of Apex*
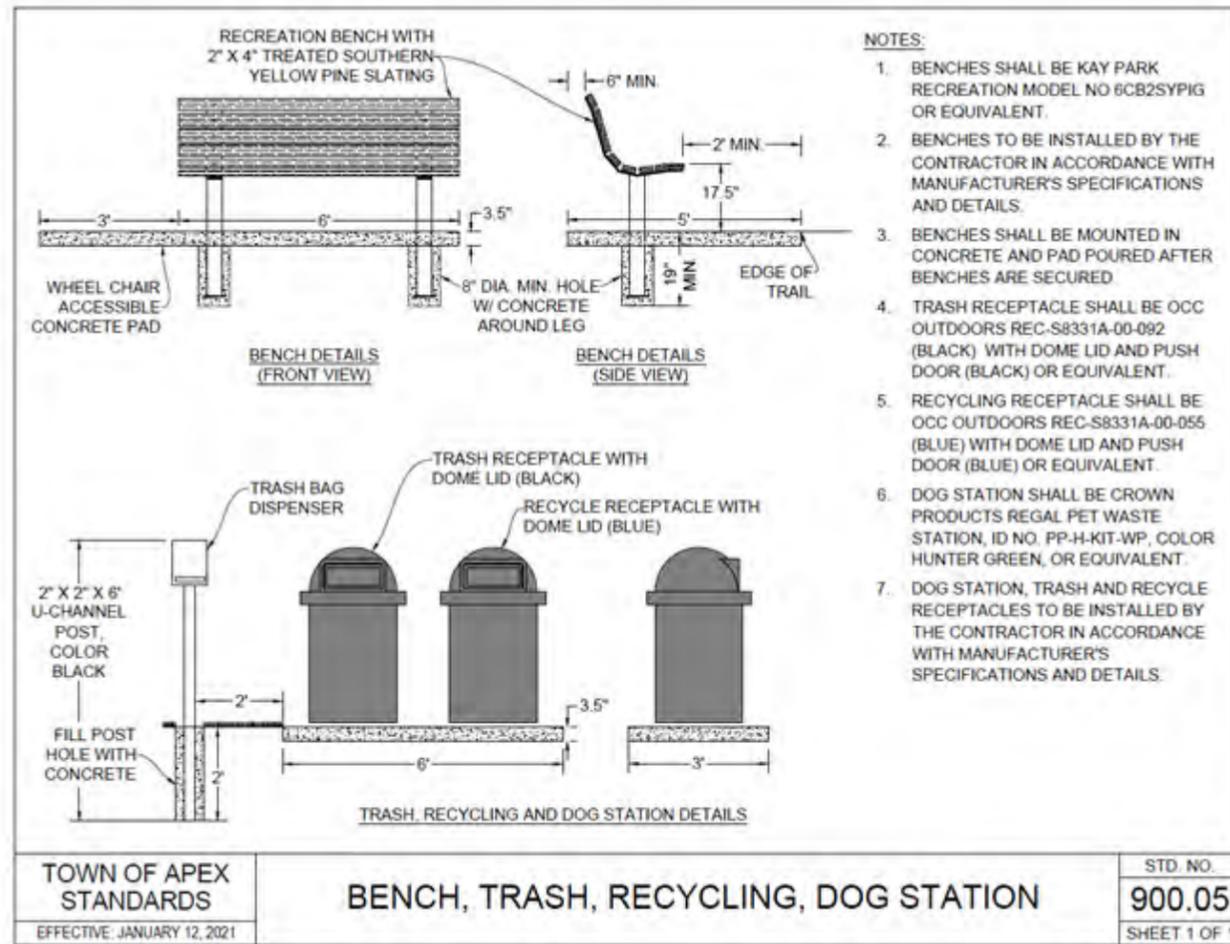
Figure 12.50 - Existing Design Standards for Benches, Trash, Recycling, + Dog Stations / *Town of Apex*

Data Collection

Bicycle and pedestrian count data are an essential tool to justify investments in greenway and active transportation infrastructure and communicate needs with the public, elected officials, and other stakeholders. Collecting this data provides insights into temporal user volume trends (time of day and seasonal), user type trends (biking vs. walking), and user volume trends by geographic location (which sections are most frequently used). This information can also help identify potential areas of need as municipalities plan their future pedestrian and bicycling infrastructure projects.

Figure 12.51 - Bicycle + Pedestrian Counter in Dallas, TX

A variety of counting technologies and products are available depending on the specific application and budget. These range from inductive loop detectors, pneumatic tube detectors, and passive infrared detectors among others. Mobile counters provide the flexibility to collect data in one location before moving to another collection location and are typically battery-powered. Fixed counters are used at locations where long-term data collection is desired and may be wired or battery-powered. Some blend in with their surroundings and others utilize real-time display totems to present daily and yearly counts and engage directly with those users being counted.

Depending on the specific product, count data may be retrieved manually from the counter or may streamline the process via wireless transmission, reducing trips to the field. Online, easy-to-use data platforms are also offered to analyze and visualize the data. Features include dashboards and interfaces to provide access to count data for the development of custom websites and mobile applications. The emerging use of "Big Data" crowd-sourced from mobile phone users, via services such as Streetlight and Strava, may also be an option for collecting user count data.

The Town of Apex currently has four bicycle and pedestrian counters. One of them is located on the Beaver Creek Greenway. The others are located on N Salem Street in downtown Apex and on Olive Chapel Road.

IMPLEMENTATION

Recommendations outlined in the Apex Greenway Master Plan present major investments in greenway infrastructure that will significantly expand recreational opportunities for residents, employees, and visitors. Successful implementation of this plan will require a coordinated and consistent effort with a wide range of community partners. Key agencies and partners include the Apex Town Council, Town of Apex Parks, Recreation & Cultural Resources Department, Town of Apex Public Works Department, Town of Apex Transportation and Infrastructure Development, Town of Apex Planning Department, Town of Apex Water Resources Department, Wake County, Capital Area Metropolitan Planning Organization (CAMPO), North Carolina Department of Transportation (NCDOT), NCDOT Integrated Mobility Division (IMD), as well as advocacy organizations, private partners, and members of the community.

This chapter outlines partner roles and action steps to guide key agencies and stakeholders in the funding, design, and construction of greenway network recommendations, as well as the implementation of recommended policies and amenities. Action steps prioritize implementation strategies over a 10-year planning horizon. Funding resources available to the Town of Apex for implementation are outlined in Appendix A: Funding.

Key Partners in Implementation

Achieving success in the development of the Apex Greenway Master Plan relies on collaboration with community partners and stakeholders at the local, regional, and state levels. Implementation will require both individual and coordinated efforts by all project stakeholders. Key roles in the implementation of this plan are outlined below.

Role of the Apex Town Council

The Town of Apex operates under a Council-Manager form of government. The Town Council, which includes the Mayor of Apex, establishes policies, and the Town Manager is responsible for the implementation and administration of established policies. Therefore, the Town Council is responsible for adopting this plan, establishing recommended policies, and supporting the action steps required to implement plan recommendations. By adopting the plan, the Town Council expresses its commitment to expanding greenway infrastructure, policies, and amenities in Apex. They also demonstrate their intent to support the efforts of other key partners, such as Town departments and Wake County.

Role of the Town Departments

Town departments lead or support the development of greenway projects in Apex. On projects they play a leading role, municipal staff are the primary coordinators for project development, community engagement, policy development, funding strategies, and maintenance. Town departments involved in the implementation of the Apex Greenway Master Plan include the Parks, Recreation & Cultural Resources, Planning, Public Works, Transportation and Infrastructure Development, and Water Resources departments. The Parks, Recreation & Cultural Resources Department is responsible for the planning, design, and maintenance of existing and future parks and providing recreation services and programs. The Planning Department advises citizens, staff, and elected officials on policies for land use, housing, transportation, zoning, and growth management. The Public Works Department is responsible for the maintenance and repair of Town-owned roadways, buildings, and grounds.

Role of the NCDOT

North Carolina Department of Transportation (NCDOT) allocates federal and state funding and establishes policies for transportation improvements in communities across the state of North Carolina. Every two years, NCDOT develops the State Transportation Improvement Program (STIP), which identifies projects that will receive funding during a 10-year period. NCDOT policies such as Complete Streets provide guidance and oversight for permitting and implementing bicycle and pedestrian projects. The Complete Streets Policy, adopted in August 2019, requires NCDOT to consider and incorporate bicycle and pedestrian facilities in the design and improvement of the state's transportation projects. As the lead state agency allocating funding, guiding implementation of the Complete Streets policy, and approving activities along NCDOT-maintained roadway corridors, NCDOT plays a critical role in the implementation of the Apex Greenway Master Plan. NCDOT agencies involved in project development include Division 5 and the Integrated Mobility Division (IMD).

Role of the Regional + County Stakeholders

Other governmental organizations that have jurisdictional authority or administer services in Apex play a key role in project implementation by working with lead agencies to advance shared goals of improving multi-modal connectivity and expanding travel choices in the region. Key agency partners include Capital Area Metropolitan Planning Organization (CAMPO) and Wake County. CAMPO allocates federal funds to local projects through the Locally Administered Projects Program (LAPP). CAMPO also ranks and prioritizes projects submitted to the Strategic Transportation Prioritization (SPOT), which is the methodology NCDOT uses to develop the State Transportation Improvement Program (STIP). Wake County Parks, Recreation, and Open Space administers funding to municipalities in the County to develop greenways through the 2018 Parks, Greenways, Recreation and Open Space Bond, and Wake County Public School System administers a county-wide Safe Routes to School Program to develop encouragement and safety programs for students walking and bicycling to school.

Role of the Town Parks + Recreation Advisory Commission

The Parks and Recreation Advisory Commission provides guidance to department staff and Town Council on issues relating to parks and recreational policies, facilities, finances, programs, and long-range plans. The Parks and Recreation Advisory Commission provides their review and expertise to elected officials and agency staff, provides constructive guidance on greenway system issues, and ensures that residents have an opportunity to give input and receive a response by Town staff.

Role of Local Residents + Community Groups

Residents and community groups that promote greenway system expansion serve a key role in advocating for greenway infrastructure investment. Community members and groups generate support for projects by raising awareness amongst the public, advocating to elected officials to prioritize funding for greenways and greenway amenities, and fostering collaboration amongst jurisdictional partners. Key advocacy organizations that may also support implementation of the greenway network and policy recommendations include East Coast Greenway Alliance, Triangle Trails Initiative, and Live Well Wake.

Role of Private Developers

Private developers play an important role in the development of greenways. Developers may be required to construct planned greenways, side paths, and sidewalks as a requirement for development in municipal limits, as specified in the Apex Unified Development Ordinance. Town of Apex staff from the Parks, Recreation & Cultural Resources, Planning, and Transportation and Infrastructure Development departments should coordinate with developers to provide guidance on code requirements and processes on greenway and side path design standards. Developers should be prepared to include greenway facilities in future developments that provide connections to Apex's comprehensive greenway network.

ACTION PLAN

The following table provides key action steps and descriptions to implement greenway network and policy recommendations over a 10-year planning horizon. Detailed action steps with corresponding pathways, responsibilities, and status are included in the Action + Implementation Plan chapter of this plan. The action steps presented in this chapter support the following guiding principles under the theme "EXPANSION" as identified in the *Parks, Recreation, Greenways, Open Space, and Cultural Resources Master Plan*:

EXPANSION:

› 1.1 Connectivity: Prioritize interconnected public realm through greenways, bike-ways, and transportation.
› 1.2 Recreation offerings: Expand recreation offerings to attract new participants, retain current ones, and meet the needs of diverse and growing demographics of Apex.
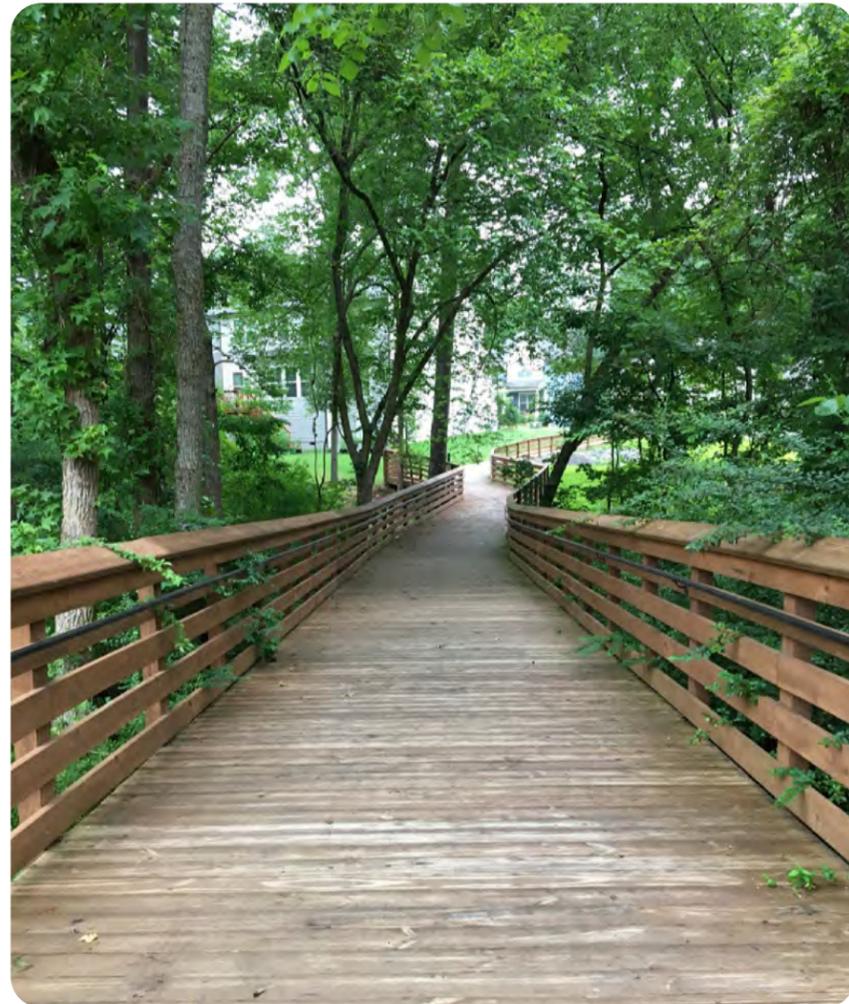
Figure 12.52 - *Acadia Ridge Greenway Access Bridge*

Action Plan for Town of Apex Greenways

THEMES/ GUIDING PRINCIPLES	RECOMMENDATIONS	ACTION ITEMS	DESCRIPTION
1. EXPAND			
1.1 Connectivity: Prioritize interconnected public realm through greenways, bike-ways, and transportation.			
1.1.1	Implement the proposed greenway network plan to improve access to parks, other greenways, and other local and regional destinations.	a. Build ADDITIONAL 12 miles of greenways in the next ten years to achieve level of service (LOS) 0.46 miles/ 1,000 population.	Parks, Recreation & Cultural Resources, Planning, Public Works, and Transportation & Infrastructure Development departments should collaborate to identify, prioritize, and construct greenways within the Town to achieve LOS.
		b. Continue inter-departmental collaborations on *Bike Apex*, the *Comprehensive Transportation Plan*, and the *Master Plan for Parks, Recreation, Greenways, Open Space, and Cultural Resources* to improve system-wide connectivity, implement recommended infrastructure, amenities, and policies outlined in adopted plans.	Continue to convene the PRCR Advisory Commission to guide Town staff (Parks, Recreation & Cultural Resources and Planning departments) in the implementation of recommended infrastructure, amenities, and policies.
		c. Continue inter-jurisdictional collaborations to improve regional connectivity.	The Parks, Recreation & Cultural Resources and Planning departments should continue to coordinate with inter-jurisdictional parties to ensure the Town's greenway network connects to other planned active transportation systems in the region.
		d. Address current gaps in the system to expand the network connectivity through side path, greenway, and street-side greenway development.	The Parks, Recreation & Cultural Resources, Planning, Public Works, and Transportation & Infrastructure Development departments should identify and document gaps in the greenway network to support an interconnected and continuous system of side paths, trails, and greenways.

THEMES/ GUIDING PRINCIPLES	RECOMMENDATIONS	ACTION ITEMS	DESCRIPTION
1.1.1	Implement the proposed greenway network plan to improve access to parks, other greenways, and other local and regional destinations.	e. Identify 'commuter corridors' to offer regional connectivity with major employment destinations.	The Parks, Recreation & Cultural Resources and Planning departments should identify paths within the greenway network that could potentially serve as 'commuter corridors' that connect to employment destinations or offer regional connectivity through connections to nearby greenway systems or transit.
		f. Coordinate with NCDOT Division 5 on future STIP projects to prioritize and construct side paths, safe connections, and intersection treatments in roadway projects.	The Parks, Recreation & Cultural Resources, Planning, Transportation & Infrastructure Development departments should coordinate with NCDOT Division 5 and NCDOT IMD on future State Transportation Improvement Program (STIP) projects to incorporate side paths and intersection treatments in roadway enhancements, especially along Williams St, Ten Ten Rd, US 64, Kelly Rd, New Hill Olive Chapel Rd, Old Raleigh Rd, Lake Pine Dr, and Laura Duncan Rd.
		g. Develop a greenway work plan and construct greenway development as part of essential infrastructure development across the Town. Designate Town staff to lead implementation of plan recommendations.	The Town Manager and Department Directors of Parks, Recreation & Cultural Resources, Planning, Transportation & Infrastructure Development, and Public Works departments should identify staff leads and duties for plan implementation. Staff leads should be selected to guide project development, data collection, policies, and maintenance.

THEMES/ GUIDING PRINCIPLES	RECOMMENDATIONS	ACTION ITEMS	DESCRIPTION
1.1.1	Implement the proposed greenway network plan to improve access to parks, other greenways, and other local and regional destinations.	h. Provide staff resources and training related to greenway infrastructure and amenities.	Provide resources and funding for staff (Parks, Recreation & Cultural Resource, Planning, Transportation & Infrastructure Development, and Public Works departments) involved in plan implementation to attend webinars, trainings, and conferences on greenway planning, design, and programming. Invest in guidance materials available from FHWA, NCDOT, NACTO, AASHTO, Rails to Trails Conservancy, and American Trails.
		i. Develop funding strategies and allocate funding for greenway development annually and seek funding opportunities for right-of-way acquisitions, easement acquisitions proactively.	Review funding resources provided in Appendix A and coordinate with Town Staff, CAMPO, Wake County, and NCDOT IMD to determine funding strategies for plan recommendations.

THEMES/ GUIDING PRINCIPLES	RECOMMENDATIONS	ACTION ITEMS	DESCRIPTION
1.1.2	Prioritize completion of greenway corridors that meet most criteria established in the prioritization matrix.	a. Use the prioritization criteria to inform decisions regarding project implementation priorities.	The Parks, Recreation & Cultural Resources and Planning departments should score each greenway and side path corridor using criteria developed through this planning effort to prioritize Apex's greenway network. Prioritization criteria should be evaluated periodically based shifts in community needs and funding and development opportunities.
		b. Conduct feasibility studies for the high priority greenway projects.	The Parks, Recreation & Cultural Resources and Planning departments should coordinate with NCDOT, regional partners, and adjacent municipalities to conduct feasibility studies for the top ten priority greenway projects.
		c. Following feasibility study completion, score high-priority greenway corridors for design development and construction funding using the prioritization criteria developed through this planning effort.	The Parks, Recreation & Cultural Resources, Planning, Transportation & Infrastructure Development, and Public Works departments should work together to score high priority greenway corridors to determine priority projects for 30% design development and construction funding based on phase two of the prioritization criteria developed through this planning efforts. High priority greenway corridors should be scored following the completion of feasibility studies.

THEMES/ GUIDING PRINCIPLES	RECOMMENDATIONS	ACTION ITEMS	DESCRIPTION
1.1.3	Encourage and support greenway use through place-making strategies.	a. Use place-making strategies to enhance user experience along greenway nodes and trail head locations.	The Parks, Recreation & Cultural Resources and Planning departments should identify place-making strategies that consider appropriate uses, activities, access, linkages, safety, levels of comfort, image, and sociability experiences along greenways and at trail heads. The Town should engage with the public to ensure the place-making vision is consistent with the community's expectations and desires.
		b. Develop a hierarchical system of trail heads and amenities associated with each.	The Parks, Recreation & Cultural Resources and Planning departments should identify and document a hierarchical system of trail heads within the greenway network. For example: major trail heads should have a restroom, small weather shelter, seating opportunities, car and bike parking, a bike repair station, and drinking water facility. A minor trailhead should have a bench and a trash receptacle at a minimum. All trail heads should have wayfinding information.
		c. Provide easy access to amenities (e.g., restrooms, drinking water, seating areas, mile markers etc.) to encourage fitness and health outcomes.	The Parks, Recreation & Cultural Resources and Planning departments should identify and document potential access locations for amenities along the greenway network. While greenways can be used for recreational purposes, they can also support and encourage fitness, resulting in positive health outcomes for users.

THEMES/ GUIDING PRINCIPLES	RECOMMENDATIONS	ACTION ITEMS	DESCRIPTION
1.1.3	Encourage and support greenway use through place-making strategies.	d. Develop a Greenway Maintenance & Operations Plan and allocate resources for maintenance of aging sections as part of the asset management plan.	The Parks, Recreation & Cultural Resources, Planning, and Public Works departments should develop a greenway and amenities maintenance and operations plan to define maintenance responsibilities, budget, and staff resources required to maintain facilities.
		e. Incorporate digital capabilities such as QR codes on greenway signage, bike rentals, and phone apps to encourage greenway use.	The Parks, Recreation & Cultural Resources, Planning, and Marketing departments should identify opportunities for digital marketing within the Town's greenway network. Utilizing digital marketing will result in sustainable promotion of the greenway system. Digital information can also be easily updated as the network expands in the future.
		f. Facilitate and participate in programs and events such as bike rodeos and other educational programming, group walks and bike rides, nature hikes, etc. to attract new users.	The Parks, Recreation & Cultural Resources and Planning departments should engage the Town in bicycle and pedestrian programs to help highlight the Town's efforts in greenway planning.
		g. Ensure connectivity to internal parks trails from greenway corridors.	The Parks, Recreation & Cultural Resources Department should collaborate with Planning to identify potential connections between trails within the Town's parks and major greenway corridors.
		h. Continue to implement the current wayfinding signage along new greenway corridors.	The Parks, Recreation & Cultural Resources and Planning departments should refer to the existing standards for wayfinding signage and identify appropriate locations along the Town's greenways to implement new signage.

THEMES/ GUIDING PRINCIPLES	RECOMMENDATIONS	ACTION ITEMS	DESCRIPTION
1.1.4	Evaluate performance of the greenway network annually.	a. Develop performance measures and conduct annual reviews of the greenway system to understand facility needs, funding and resource needs, and usage rates.	The Parks, Recreation & Cultural Resources and Planning departments should develop performance measures and conduct annual reviews of the greenway system to understand facility needs, funding and resource needs, and usage rates.
		b. Coordinate with NCDOT IMD to continue future participation in the Bicycle and Pedestrian Count Program.	The Parks, Recreation & Cultural Resources and Planning departments should coordinate with NCDOT IMD to be involved in the NC State Institute for Transportation Research and Education (ITRE) Non-Motorized Volume Data Program to collect bicycle and pedestrian counts along greenways and side paths.

1.2 Recreation offerings: Expand recreation offerings to attract new participants, retain current ones, and meet the needs of diverse and growing demographics of Apex.

Parks and Facilities Recommendations

THEMES/ GUIDING PRINCIPLES	RECOMMENDATIONS	ACTION ITEMS	DESCRIPTION
1.2.3	Develop the existing vacant parkland to continue to provide recreation offerings for growing population.	a. Update current land acquisition and fee-in-lieu policy and conduct a fee study for identifying and prioritizing land acquisition for future parks and open space and recreational amenities including greenways.	Coordinate with the Planning Department to conduct a fee study to analyze the Town of Apex fee structure. In the current fee structure, greenways are defined as a recreational amenity, and as such are only required to be constructed by developers in residential developments. Explore the potential to define greenways as infrastructure in the land development ordinance to expand requirements so that planned greenways are required to be constructed in non-residential developments as well.

Maintenance

The maintenance of Apex's greenway system is essential to the long-term viability of the network. Greenways that are consistently maintained have lower costs over time and provide a safer and more positive user experience than greenways that require major rehabilitation work from a lack of consistent maintenance. Focusing on best practices for maintenance also prolong the useful life of greenways, promote positive relationships with adjacent landowners, and create a sense of stewardship in the community.

This plan recommends a comprehensive approach to maintenance with the development of a maintenance plan to prioritize funding and responsibilities amongst Town departments. The maintenance plan should be reviewed and updated annually, responding to lessons learned and changes in tasks, operational policies, standards, and maintenance goals. Key considerations for Apex's greenway system maintenance plan include:

› Understanding the anticipated needs of the greenway system and assessing the capacity of Town staff to meet those maintenance needs.
› Developing a facility inventory to understand the routine and substantial maintenance needs of greenway signs, amenities, bridges, culverts, and pavement conditions.
› Estimation of baseline maintenance costs by determining necessary maintenance activities, such as mowing, edging, landscaping, trash removal, debris clearing, lighting, drainage, seasonal maintenance needs, sealcoating, repaving, patching, and bridge repair.
› Consideration of labor costs based on which maintenance activities can be completed in-house versus contracted out.
› Assessment of available technologies to collect data on facility conditions and facilitate maintenance functions.
› Developing methodology to prioritize annual maintenance needs based on facility conditions and available funding.
› Consideration of emergency services including designated ingress/egress locations, mile-marker signage along the facility for location identification, and emergency notification systems.

⌃ Figure 12.53-Asphalt Patching along Salem Pond Park Trail, Apex, NC

Sample Maintenance Tasks

MAINTENANCE TASK	TASK TYPE	RECOMMENDED FREQUENCY
Tree/Brush Trimming Mowing Sweeping Signage/Map/Kiosk Updates/ Replacement Trash Removal/Litter Clean-Up Planting, Pruning, Landscaping Flooding Repairs Repainting/Restriping Minor Patching Minor Bridge Repairs Lighting Replacement Bollard Locks/Replacement Pest Management	Routine	On-Going / Annually
Greenway and Side path Sealcoating	Minor Repairs	Every 5 Years
Greenway and Side path Resurfacing: Asphalt Concrete Boardwalk	Major Reconstruction	Every 10-15 Years Every 20 Years Every 10 Years
Complete Greenway and Side path Replacement, Regrading, and Resurfacing	Major Reconstruction	Every 20 Years

Best Practices in Trail Maintenance: A Manual by the Ohio River Greenway, Perdue University

Maintenance Key Steps in the Project Development Process

While this chapter provides an overall framework for the development of greenway amenities, it is only the first step in a larger process. As a living document, recommendations and priorities outlined in the greenway plan may evolve with changing development pressures, funding opportunities, and community growth trends. Further, Apex may need to conduct feasibility studies to understand the environmental conditions, routing challenges, and costs of priority corridors. This detailed analysis allows design and right-of-way acquisition to be finalized, which is followed by construction. Operational and programming plans are developed once greenways are constructed to determine maintenance and evaluation needs. The diagram below illustrates the typical planning, design, and construction process for greenway amenities with key phases and individual tasks.

PROJECT FEASIBILITY
COMMUNITY ENGAGEMENT
ENVIRONMENTAL ANALYSIS
ROUTE ALIGNMENT ANALYSIS
COST ESTIMATES

DESIGN
COMMUNITY ENGAGEMENT
ENVIRONMENTAL DOCUMENTATION
30% DESIGN
FULL DESIGN

OPERATIONS + EVALUATION
COMMUNITY ENGAGEMENT
MAINTENANCE PLAN
PROGRAMMING
USER COUNTS

PLANNING
COMMUNITY ENGAGEMENT
EXISTING CONDITIONS ANALYSIS
COMPREHENSIVE NETWORK
PRIORITY PROJECTS

RIGHT OF WAY
ROW AUTHORIZATION
LAND AQUISITION / EASEMENTS
COMMUNITY ENGAGEMENT

CONSTRUCTION
PERMITTING
BIDDING & PROCUREMENT
COMMUNITY ENGAGEMENT
CONSTRUCTION

Figure 12.54- Project Development Process

Figure 12.55- Image pictured to the right is the greenway at Apex Community Park

APPENDIX A: GREENWAY FUNDING RESOURCES

Below are several funding sources that can be leveraged to provide the necessary dollars to plan, design, and/or construct bicycle, pedestrian, and greenway facilities. The following sources of funding have been instrumental in the successful development of bicycle and pedestrian networks in North Carolina communities.

Federal Funding

North Carolina communities have partnered with Federal agencies to build multi-use paths, greenways, sidewalks, bike lanes and improve crossings. Federal funding is primarily distributed to municipalities through state agencies and Metropolitan Planning Organizations (MPO), as well as through discretionary grant programs.

The Fixing America's Surface Transportation (FAST) Act authorizes transportation funding for highway, transit, rail, bicycle and pedestrian, and safety programs and infrastructure. FAST Act funding is administered by the Federal Highway Administration (FHWA). FHWA distributes funding to NCDOT and directly to MPOs through the Locally Administered Projects Program (LAPP). Communities wishing to access Federal funding must submit their candidate projects to their MPO or RPO to then be entered into the NCDOT's Strategic Transportation Investment (STI) Mobility Formula. This formula ranks projects and identifies those to be funded in the State Transportation Improvement Program (STIP). These funds require a 20% match from the municipality. Federal transportation funds for bicycle and pedestrian projects are primary distributed through four programs: Transportation Alternatives (TA), Congestion Mitigation & Air Quality (CMAQ), Recreational Trails Program, (RTP), and Highway Safety Improvement Program (HSIP).

Additional federal funding sources for bicycle and pedestrian projects are administered through the Department of Housing and Urban Development (HUD) with the Community Development Block Grant (CDBG) Program, and several discretionary grant programs administered by the US Department of Transportation (USDOT), National Park Service (NPS), and the National Endowment for the Arts (NEA).

State + MPO Administered Funding Transportation Alternatives (TA)

Transportation Alternatives provides federal funds for community-based projects that expand travel choices and enhance the transportation experience by integrating modes and improving the cultural, historic, and environmental aspects of our transportation infrastructure. In North Carolina, TA funds are administered by NCDOT. Program-eligible projects must be submitted through STI and require a 20 percent local match.

Project types include:

› On and off-road pedestrian and bicycle facilities.
› Infrastructure projects for improving non-driver access to public transportation and enhanced mobility.
› Community improvement activities.
› Environmental mitigation.
› Safe routes to school projects.
› Street-scape improvements.
› Refurbishment of historic transportation facilities.
› Other investments that enhance communities.

NCDOT has created a bicycle and pedestrian scoping guidance document for local governments that have been awarded Transportation Alternatives funding. The Bike/Ped Project Scoping Guidance for Local Governments provides an overview of the four scoping tools used for locally managed, federally funded transportation projects

in North Carolina. The document provides guidance on the project delivery process, scoping, identifying project risks, and project cost estimation. The document is available at the link below.

https://connect.ncdot.gov/projects/BikePed/Documents/BikePed%20Project%20Scoping%20Guidance%20for%20Local%20Governments.pdf
https://www.fhwa.dot.gov/environment/transportation_alternatives/

Congestion Mitigation + Air Quality (CMAQ)

CMAQ is a federal program that funds transportation projects and programs in air quality non-attainment and maintenance areas to help achieve and maintain national standards for air quality. In North Carolina, NCDOT serves as the administrator for this program. Funding is apportioned to North Carolina based on the population in non-attainment and maintenance areas of the state and the severity of air quality problem. North Carolina's allocation of CMAQ funding is split in three pots available for funding, as follows:

› Statewide CMAQ funds are administered by NCDOT and are awarded to prioritized NCDOT-driven CMAQ eligible projects either on a statewide tier facility or involving a system wide improvement within non-attainment and maintenance areas. Statewide CMAQ funds are not subject to regional or subregional allocations or the allocation formula. This category accounts for 35% of the total North Carolina CMAQ apportionment.
› Regional CMAQ funds are locally administered and awarded to projects spanning more than one air quality region that cannot be considered subregional projects. Air quality regions are Catawba, Great Smoky Mountains National Park, Metrolina, Rocky Mount, the Triad, and the Triangle. The local project sponsor is responsible for providing the required match. This category accounts for 5% of the total North Carolina CMAQ apportionment.
› Subregional CMAQ funds are locally administered and awarded at the MPO/RPO level to projects within eligible counties. The local project sponsor is responsible for providing the required match and meeting federal funding requirements. This category accounts for 60% of the total North Carolina CMAQ apportionment.

https://www.fhwa.dot.gov/environment/air_quality/cmaq/

Highway Safety Improvement Program (HSIP)

The purpose of the North Carolina Highway Safety Improvement Program (HSIP) is to provide a continuous and systematic procedure that identifies and reviews specific traffic safety concerns throughout the state. The goal of the HSIP process is to reduce the number of traffic crashes, injuries, and fatalities by reducing the potential for these incidents on public roadways. Areas with bicycle and pedestrian safety concerns are primarily analyzed based on bicycle and pedestrian crash data.

https://connect.ncdot.gov/resources/safety/Pages/NC-Highway-Safety-Program-and-Projects.aspx

Recreational Trails Program (RTP)

The Recreational Trails Program provides funds to state agencies to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. RTP is an assistance program of the Department of Transportation's Federal Highway Administration (FHWA). In North Carolina, the Recreational Trails Program is a $1.5 million grant program that funds trails and trail-related recreational needs identified by the Statewide Comprehensive Outdoor Recreation Plan. Grant funding is available for trail planning, construction of new trails; maintenance and repair of existing trails; land acquisition; purchase of trail tools; and legal, environmental, and permitting costs. RTP is a reimbursement grant program. Municipalities must provide project funds upfront and are reimbursed upon completion of deliverables. Eligible applicants are state, federal,

or local government agencies or qualified nonprofit organizations. Grants range from $10,000 - $100,000 and require a 25% match by the municipality.

https://www.fhwa.dot.gov/environment/recreational_trails/
https://trails.nc.gov/trail-grants

Community Development Block Grant (CDBG)

The Community Development Block Grant Program provides annual grants on a formula basis to states, cities, and counties to develop viable urban communities by providing decent housing, suitable living environments, and expanding economic opportunities for low-and moderate-income persons. The program is authorized under Title 1 of the Housing and Community Development Act of 1974. CDGB funds are allocated at the federal level by HUD and at the state level by the NC Department of Commerce. All municipalities are eligible to receive State CDBG funds except for entitlement communities, which receive funds directly from HUD. North Carolina's 24 entitlement municipalities are: Asheville, Burlington, Cary, Chapel Hill, Charlotte, Concord, Durham, Fayetteville, Gastonia, Goldsboro, Greensboro, Greenville, Hickory, High Point, Jacksonville, Kannapolis, Lenoir, Morganton, New Bern, Raleigh, Rocky Mount, Salisbury, Wilmington, and Winston-Salem. In addition, all counties are eligible to receive State CDBG funds except Mecklenburg County, Wake County, Union, and Cumberland County, which have been designated by HUD as urban entitlement counties.

CDBG funds may be used for activities which include, but are not limited to:

› Acquisition of real property.
› Relocation and demolition.
› Rehabilitation of residential and non-residential structures.
› Construction of public facilities and improvements, such as water and sewer facilities, streets, neighborhood centers, and the conversion of school buildings for eligible purposes.
› Public services, within certain limits.
› Activities relating to energy conservation and renewable energy resources.
› Provision of assistance to profit-motivated businesses to carry out economic development and job creation/retention activities.

https://www.hud.gov/program_offices/comm_planning/communitydevelopment

Discretionary Grants Rebuilding American Infrastructure with Sustainability + Equity (RAISE)

The Infrastructure Investment and Jobs Act appropriated $1.5 billion to be awarded by the Department of Transportation (DOT) for National Infrastructure Investments, formerly known as TIGER and BUILD Grants and now as Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grants. RAISE Grants are for capital investments in surface transportation that will have a significant local or regional impact. The FY2022 RAISE Notice reflects the current Administration's priorities for creating good-paying jobs, improving safety, applying transformative technology, and explicitly addressing climate change and advancing racial equity. Consistent with the FY 2022 Appropriations Act requirement, the Secretary shall award projects based solely on the selection criteria. The primary selection criteria are safety, environmental sustainability, quality of life, economic competitiveness, and state of good repair, and the secondary selection criteria are partnership and innovation. The Federal share of project costs may not exceed 80 percent for a project located in an urban area. The Secretary may increase the Federal share of costs above 80 percent for projects located in rural areas and for planning projects located in areas of persistent poverty.

Project Awards:

› Total Funding: $1.5 billion.
› Minimum Project Awards: Urban Projects: $5 million, Rural Projects: $1 million.
› Planning Grants: $75 million total funding; No project minimum required.
› Maximum Awards: Urban/Rural Projects: $25 million, Per State: $225 million.
› Geographic Distribution: 50% of total funds ($750 million) awarded to both urban and rural projects.

https://www.transportation.gov/RAISEgrants

Federal Lands Access Program (FLAP)

The Federal Lands Access Program (FLAP) provides funds for projects to improve Federal Lands Access Transportation Facilities that provide access to, are adjacent to, or are located within federal lands. This can include public roads, bridges, paved trails, or transit systems that are owned and/or maintained by the state, county, town, township, tribal, municipal, or local government. Funds may be used for the costs of transportation planning, research, engineering, preventive maintenance, rehabilitation, restoration, construction, and reconstruction of transportation facilities located on or adjacent to, or that provide access to, federal lands. Applicable activities include parking areas; acquisition of scenic easements or historic sites; bicycle and pedestrian provisions; environmental mitigation; public safety; and roadside rest areas. Other eligible activities include the operation and maintenance of transit facilities, and any transportation project that is within, adjacent to, or provides access to federal land. The program requires a minimum 20% local match.

https://highways.dot.gov/federal-lands/programs-access/nc

Federal Land + Water Conservation Fund (LWCF)

The Land and Water Conservation Fund was established by Congress in 1964 to fulfill a bipartisan commitment to safeguard natural areas, water resources and cultural heritage, and to provide recreation opportunities to all Americans. The LWCF program is divided into the "State Side" which provides grants to State and local governments for the acquisition and development of public outdoor recreation areas and facilities, and the "Federal Side" which is used to acquire lands, waters, and interests therein necessary to achieve the natural, cultural, wildlife, and recreation management objectives of federal land management agencies. State Side funds are distributed by the State and Local Assistance Programs Division of the National Parks Service. Funding is available as 50/50 matching grants to states and territories to plan, acquire, and develop public lands for outdoor recreation. Projects are selected by states and submitted to NPS for approval. In North Carolina, grants are selected by the Parks and Recreation Division in the NC Department of Cultural and Natural Resources. To be eligible for LWCF assistance, every state must prepare and regularly update a statewide comprehensive outdoor recreation plan (SCORP). Applicants can request a maximum grant of $500,000. An applicant must match the grant with a minimum of 50 percent. Due to a federal share cap of $500,000, a greater match is required for projects that exceed total costs of $1 million.

https://www.nps.gov/subjects/lwcf/stateside.htm
https://www.ncparks.gov/more-about-us/grants/lwcf-grants

Rivers, Trails, + Conservation Assistance Program (RTCA)

The National Parks Service (NPS) Rivers, Trails and Conservation Assistance Program supports community-led natural resource conservation and outdoor recreation projects across the nation. Although RTCA is not a traditional

funding program, NPS staff provide planning, design and technical expertise for trails and outdoor recreation projects. Depending on the project scale, RTCA can invest up to four years of planning and project development assistance. Eligible entities include community groups, nonprofit organizations, tribes, and governments.

Technical Assistance Services:

> › Define project vision and goals.
> › Set priorities and build consensus.
> › Inventory and map community resources.
> › Identify funding strategies.
> › Identify and analyze key issues and opportunities.
> › Design community outreach, participation, and partnerships plans.
> › Create project management and strategic action plans.
> › Develop concept plans for trails, parks, and natural areas.

https://www.nps.gov/orgs/rtca/index.htm

Safe Streets + Roads for All Grant Program

The Safe Streets and Roads for All Grant Program (SS4A) was established in 2021 under the Infrastructure Investment and Jobs Act (IIJA) as a discretionary grant. $5 billion was appropriated for the 5-year period starting with fiscal year 2022. Regional, local, and tribal agencies are eligible to apply for funding to develop or update a comprehensive safety action plan and carry out planning and development of projects and strategies within the action plan. Two types of grants are available: Action Plan Grants and Implementation Grants.

Action Plan Grants may be used for activities such as:

> › Leadership commitment and goal setting
> › Safety analysis
> › Engagement and collaboration
> › Policy and process changes
> › Strategy and project selections

Implementation Grants may be used for activities such as:

> › Improving pedestrian crossings and closing sidewalk gaps
> › Complete Street improvements
> › Developing bicycle networks
> › Creating safe routes to school

Reconnecting Communities Pilot Program

The BIL established the new Reconnecting Communities Pilot (RCP) discretionary grant program which is funded with $1 billion over the next 5 years. It is the first-ever Federal program dedicated to reconnecting communities that were previously cut off from economic opportunities by transportation infrastructure. Funding supports planning grants and capital construction grants, as well as technical assistance, to restore community connectivity through the removal, retrofit, mitigation, or replacement of eligible transportation infrastructure facilities.

https://www.transportation.gov/grants/reconnecting-communities

Neighborhood Access + Equity Grants

Neighborhood Access and Equity Grants is a new program included in the Inflation Reduction Act. Approximately one-third of the funding can be used towards lower-income areas. This bill establishes discretionary grants for removing, replacing, or retrofitting highways and freeways to improve connectivity in communities and for planning and capacity building to increase community involvement in transportation planning and related activities. The bill prioritizes grants that fund projects in economically disadvantaged communities or that meet other criteria. Funding can be used for several different type of projects, including covering a highway, turning a highway into a boulevard, adding trails and bike lanes, installing sound barriers, providing better connections to transit, using green infrastructure to mitigate storm runoff, reducing urban heat island hot spots, installing safety features, and curbing air pollution. The FHA must award the grants to state, tribal, territorial, local governments, and metropolitan planning organizations.

https://www.congress.gov/bill/117th-congress/house-bill/5267

Active Transportation Infrastructure Investment Program

This new program includes $200 million annually and is subject to appropriations. The program establishes competitive connectivity grants that strategically invest in projects that connect active transportation networks and trail networks, accelerating local and regional plans to create safe and convenient routes to everyday destinations. This program is not yet funded (currently working on appropriations); funding for the program should be appropriated at $500 million per year.

https://www.railstotrails.org/media/1173656/caats_atiip_2922.pdf

National Endowment for the Arts (NEA) Our Town Program

Our Town is the National Endowment for the Arts' creative place-making grants program. Through project-based funding, the NEA supports projects that integrate arts, culture, and design activities into efforts that strengthen communities by advancing local economic, physical, and/or social outcomes. These projects require a partnership between a local government entity and nonprofit organization, one of which must be a cultural organization; and should engage in partnership with other sectors (such as agriculture and food, economic development, education and youth, environment and energy, health, housing, public safety, transportation, and workforce development). Cost share/matching grants range from $25,000 to $150,000, with a minimum cost share/match equal to the grant amount.

https://www.arts.gov/grants/our-town

State Funding

North Carolina communities have partnered with state agencies to build bicycle and pedestrian facilities. State agency funding sources for bicycle and pedestrian planning, infrastructure, and programs are administered primarily through the North Carolina Department of Transportation (NCDOT), North Carolina Department of Natural and Cultural Resources, and North Carolina Department of Commerce. Discretionary grant programs focusing on public health and community development are administered by the North Carolina Department of Health and Human Services (DHHS), North Carolina Department of Environmental Quality (NCDEQ), and the North Carolina Department of Agriculture when funding is available.

North Carolina Department of Transportation (NCDOT) Strategic Transportation Investments (STI)

The Strategic Transportation Investments law, passed in 2013, establishes the Strategic Mobility Formula, which allocates available funding based on data-driven scoring and local input. The Strategic Mobility Formula is used to develop the State Transportation Improvement Program (STIP), which identifies projects that will receive funding during a 10-year period. The STIP is state and federally mandated and updated by NCDOT every 2 years. The Strategic Mobility Formula groups projects in three categories: Division Needs, Regional Impact, and Statewide Mobility.

Independent bicycle and pedestrian projects are programmed in the Division Needs category. Eligible bicycle and pedestrian projects submitted for prioritization must be included in a locally adopted plan and have a minimum project cost of $100,000. Eligible activities include right-of-way acquisition, design, and construction. Additionally, the STI law prohibits the use of state funding for bicycle and pedestrian projects, requiring municipalities to provide the 20% match for federally funded projects.

NCDOT Funding Distribution

FUNDING CATEGORY	FUNDING DISTRIBUTION	OVERVIEW
Division Needs	30%	Funding in this category is shared equally between NCDOT's 14 transportation divisions. Project scores are based 50% on data and 50% on rankings by MPOs and RPOs and the NCDOT Divisions.
Regional Impact	30%	Projects on this level compete within regions made up of two NCDOT Divisions with funding based on population. Project scores are based 70% on data and 30% on rankings by MPOs and RPOs and the NCDOT Divisions.
Statewide Mobility	40%	Projects in this category are of statewide significance and are based 100% on data.

Bicycle and Pedestrian STI Prioritization Qualitative Scoring:
Local input points represent 50% of the scoring for bicycle and pedestrian projects. 25% of local input points are assigned by MPOs and RPOs, which are determined by municipal and county project priorities and public comment. The remaining 50% of the local input points are assigned by NCDOT Division Engineers.

NCDOT Criteria Measurements + Division Needs

CRITERIA	MEASURE	DIVISION NEEDS (50%)
Safety	(Number of crashes x 40%) + (Crash severity x 20%) + (Safety risk x 20%) + (Safety benefit x 20%)	20%
Accessibility / Connectivity	Points of Interest pts + Connection pts + Route pts	15%
Demand / Density	# of households and employees per square mile near project	10%
Cost Effectiveness	(Safety + Accessibility / Connectivity + Demand / Density) / Cost to NCDOT	5%

Project Bundling:
Multiple bicycle and pedestrian projects can be bundled to better compete with other projects submitted in the Division Needs category. Bundled projects are allowed across various geographies and project types. Projects do not have to be contiguous or related, and projects can be within a single municipality or across multiple jurisdictions. Bundled projects must be under one project manager, which must be a TAP eligible entity.

https://www.ncdot.gov/initiatives-policies/Transportation/stip/Pages/strategic-transportation-investments.aspx

Incidental Bicycle + Pedestrian Facilities with Roadway Projects
The NCDOT Complete Streets Policy Update was adopted by the Board of Transportation in August 2019. This policy requires NCDOT to consider and incorporate multi-modal facilities in the design and improvement of all transportation projects in North Carolina. The adopted Comprehensive Transportation Plan (CTP) is considered the controlling plan for the identification of non-motorized facilities to be evaluated as part of a roadway project. The CTP may include and/ or reference locally adopted plans for public transportation, bicycle and pedestrian facilities, and greenways. Bicycle, pedestrian, and public transportation facilities that appear in the CTP directly or by reference will be included as part of the proposed roadway project, and NCDOT is responsible for the full cost of the project. Bicycle, pedestrian, and transit facilities incidental to a roadway project where a need has been identified through the project scoping process but not identified in an adopted plan may be included in the project. Inclusion of these incidental facilities requires the local jurisdiction to share the incremental cost of constructing the improvements based on population thresholds. Projects that have not completed environmental review prior to August 2019 are subject to the Complete Streets Policy.

https://connect.ncdot.gov/projects/BikePed/Pages/Complete-Streets.aspx

Statewide Projects Funds

Small Construction Funds: These funds were established in 1985 to fund small projects in and around cities and towns that could not be funded in the Statewide Transportation Improvement Program (STIP). Funds are allocated equally to each of 14 Transportation Divisions. Funds can be used on a variety of transportation projects for municipalities, counties, businesses, schools, and industries throughout the State. Funds projects up to $250,000 per fiscal year, unless otherwise approved by the Secretary of Transportation. Right-of-way and utility relocations should be provided and accomplished at no cost to NCDOT. Funding requests should be submitted to the Division Engineer providing technical information such as location, improvements being requested, and project timeline.

Statewide Contingency Funds: These funds were created for statewide rural or small urban highway improvements and related transportation enhancements to public roads/ public facilities, industrial access roads, and spot safety projects. The President Pro Tempore of the Senate, the Speaker of the House, and the Secretary of Transportation sponsor project requests from this fund. $12 million in funds are administered by the Secretary of Transportation. Requests can be submitted from municipalities, counties, businesses, schools, citizens, legislative members, and NCDOT staff. Request should include a clear description and justification of the project.

Economic Development Funds: These funds were created to expedite transportation projects that promote commercial growth as well as either job creation or job retention. $2500 per job (new & retained) allowed unless waived by the Secretary of Transportation. Funds projects up to $400,000 per fiscal year, unless otherwise approved by the Secretary of Transportation. New access roads must be approved by NCDOT and serve multiple property owners or government owned property; roads will become part of the State Highway System or serve as public roads maintained by a government agency.

High Impact / Low-Cost Funds: This program provides funds to complete low-cost projects with high impacts to the transportation system including intersection improvement projects, minor widening projects, and operational improvement projects. Funds are allocated equally to each of 14 Transportation Divisions. Each Division is responsible for selecting their own scoring criteria for determining projects funded in this program. At a minimum, Divisions must consider all the following in developing
scoring formulas: (1) The average daily traffic volume of a roadway and whether the proposed project will generate additional traffic. (2) Any restrictions on a roadway. (3) Any safety issues with a roadway. (4) The condition of the lanes, shoulders, and pavement on a roadway. (5) The site distance and radius of any intersection on a roadway. Funds projects up to $1.5 million per fiscal year, unless otherwise approved by the Secretary of Transportation. Projects are expected to be under contract within 12 months of funding approval by the Board of Transportation.

https://connect.ncdot.gov/projects/planning/economic%20development/forms/allitems.aspx

SPOT Safety Program

The Spot Safety Program is used to develop smaller improvement projects to address safety and potential safety and operational issues. The program is funded with state funds and currently receives approximately $9 million per fiscal year. Other monetary sources (such as Small Construction or Contingency funds) can assist in funding Spot Safety projects, however, the maximum allowable contribution of Spot Safety funds per project is $400,000. A Safety Oversight Committee (SOC) reviews and recommends Spot Safety projects to the Board of Transportation (BOT) for approval and funding. Criteria used by the SOC to select projects for recommendation to the BOT include, but are not limited to, the frequency of correctable crashes, severity of crashes, delay, congestion, number of signal warrants met, effect on pedestrians and schools, division and region priorities, and public interest.

https://connect.ncdot.gov/resources/safety/pages/nc-highway-safety-program-and-projects.aspx

State Planning + Research Funds (SPR)

The State Planning and Research Program funds States' statewide planning and research activities. This program funds metropolitan and statewide planning for future highway programs and local public transportation systems. The FAST Act expanded the statewide transportation planning process' scope of consideration to include projects, strategies, and services that will improve transportation system resiliency and reliability; reduce (or mitigate) the storm water impacts of surface transportation; and enhance travel and tourism. In 2017, NCDOT extended the use of SPR funds to Rural Planning Organizations (RPOs) by establishing an annual call for proposals to fund planning and research projects for rural communities. Since the program expansion, RPOs have used SPR funds for a range of transportation planning activities, including to develop greenway and trail feasibility studies. SPR funding requires a 20% local match. However, the local match is 5% for Tier 1 Counties with NCDOT contributing 15% of the local match and 10% for Tier 2 Counties with NCDOT contributing 10% of the local match. RPOs must administer the funds. Since 2017, RPOs have used SPR funds for a range of transportation planning activities, including to develop bicycle and pedestrian facility and trail feasibility studies.

https://www.fhwa.dot.gov/fastact/factsheets/statewideplanningfs.cfm

https://connect.ncdot.gov/projects/planning/Pages/Transportation-Planning-Program-and-Services.aspx

Safe Routes to School (Non-Infrastructure Transportation Alternatives Program)

NCDOT's Safe Routes to School (SRTS) Program was established in 2005 through SAFETEA-LU as a federally funded program to provide an opportunity for communities to improve conditions for bicycling and walking to school. The SRTS Program has set aside $1,500,000 per year of Transportation Alternative Program (TAP) funds for non-infrastructure programs and activities over a three-year period. Funding requests may range from a yearly amount of $50,000 to $100,000 per project. Projects can be one to three years in length. Funding may be requested to support activities for community-wide, regional, or statewide programs.

https://connect.ncdot.gov/projects/BikePed/Pages/Non-Infrastructure-Alternatives-Program.aspx

Powell Bill Funds

The State Street Aid to Municipalities Program, also known as Powell Bill Funds, assists local governments with transportation system improvements. The Powell Bill requires municipalities to use the money primarily for street resurfacing, but it can also be used for the construction and maintenance of roads, bridges, drainage systems, sidewalks, and greenways.
Funding amounts for each municipality are based on a formula set by the N.C. General Assembly, with 75 percent of the funds based on population, and 25 percent based on the number of locally maintained street miles.

https://connect.ncdot.gov/municipalities/State-Street-Aid/Pages/default.aspx

North Carolina Department of Natural + Cultural Resources Parks + Recreation Trust Fund (PARTF)

PARTF provides dollar-for-dollar matching grants to local governments for parks and recreational projects to serve the public. PARTF is the primary source of funding to build and renovate facilities in the state parks as well as to buy land for new and existing parks.

https://www.ncparks.gov/more-about-us/parks-recreation-trust-fund/parks-and-recreation-trust-fund
North Carolina Land + Water Fund (NCLWF)

The NCLWF (formerly known as the Clean Water Management Trust Fund) was created in 1996 by the General Assembly to conserve North Carolina's streams, rivers, and open space. The NCLWF funds land acquisition, stream restoration, storm water, and planning projects that protect and conserve riparian buffers for the purpose of providing environmental protection for surface waters and urban drinking water supplies and establishing a network of riparian greenways for environmental, educational, and recreational uses. NCLWF also funds mini grants of up to $25,000 for donated property or the value of the conservation donation to pay transaction costs associated with the donation of property in fee simple, or a permanent conservation agreement. NCLWF has one grant cycle per year. Applications are available in early December and close in February. Final award decisions are made in the fall.

https://nclwf.nc.gov/apply
North Carolina Department of Commerce Main Street Solutions Fund
The Main Street Solutions Fund supports small businesses in designated micropolitans located in Tier 2 and Tier 3 counties or designated North Carolina Main Street communities. The grants assist planning agencies and small businesses with efforts to revitalize downtowns by creating jobs, funding infrastructure improvements and rehabilitating buildings.

https://www.commerce.nc.gov/grants-incentives/downtown-development-funds

Rural Infrastructure Program
The Rural Economic Development Division provides grants and loans to local government units to support economic development activity that will lead to the creation of new, full-time jobs. The program gives priority to projects located in the 80 most distressed counties in the state; and resident companies as defined in N.C.G.S. 143B-472 (a) 4. The Rural Infrastructure Program funding is available for publicly owned infrastructure including water, sewer, electric, broadband, rail, and road improvements that will lead to the direct creation of new, full-time jobs. Eligible applicants are units of local government with priority given to the Tier 1 and Tier 2 counties. A cash match equivalent to at least 5% of the grant amount is required for all projects.

Eligible project activities include:

› Construct public infrastructure improvements
› Upgrade or repair of public drinking water or wastewater treatment plants
› Upgrade, extensions, or repair of public water or sewer lines
› Publicly owned natural gas lines (requires an executed Pipeline Construction, Operating and Resale Agreement)
› Installation or extension of public broadband infrastructure
› Construction of public rail spur improvements
› Construction of publicly owned access roads not funded or owned by the Department of Transportation
https://www.nccommerce.com/grants-incentives/public-infrastructure-funds/infrastructure-state-rural-grants

North Carolina Neighborhood Revitalization Program
The NC Neighborhood Program offers non-entitlement municipalities and counties the opportunity to tailor a project to meet the community development needs specific and most critical to their locality, primarily for their low- and moderate-income residents. NC Neighborhood Program projects must incorporate at least one of the following three livability principles as an area of focus:

› Promote equitable, affordable housing. Expand location and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.
› Support existing communities. Target federal funding toward existing communities - through strategies like transit-oriented, mixed-use development, and land recycling - to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.
› Value communities and neighborhoods. Enhance the unique characteristics of all communities by investing in health, safe, and walkable neighborhoods - rural, urban, or suburban.

All municipalities are eligible to receive State CDBG funds except for entitlement communities, which receive funds directly from HUD. The maximum grant amount is $750,000 per grantee with some restrictions for specific activities. There is no minimum grant amount, and the program does not have a matching fund requirement.

https://www.nccommerce.com/grants-incentives/community-housing-grants#neighborhood-revitalization-|-federal-cdbg

Local Funding
Bond
Wake County, City of Raleigh, City of Wilmington, Town of Chapel Hill, Town of Cornelius, and City of Greenville have all passed bonds to protect open space corridors and build greenway networks. Multi-use paths and greenways are also frequently included in municipal transportation bond packages. Successful bond campaigns require a well-defined plan with specific projects supported by the community. Bond campaigns should be well organized with a community's public affairs department and thoroughly coordinated across all internal departments. Public outreach during the campaign is essential to educate residents about the benefits of infrastructure investment and to understand which projects garner the highest community support.

In 2018, voters approved a $120 million Parks, Greenways, Recreation and Open Space bond in Wake County. This funding was used to move forward with the Apex West Greenway and the Middle Creek Greenway in the Town of Apex.

Developer Built Trails/In-Lieu Fees
The Town of Cary built its first greenway 40 years ago and now has more than 80 miles of greenway trails. A significant portion of their network development has been the result of developer-built trails. The Town of Cary requires developers to set aside important open space providing trail connectivity, wildlife habitat corridors, and water quality protection. Per the Cary Land Use Ordinance, developers must dedicate land or make payment in-lieu of public park and/or greenway development to serve the recreational needs of residents. Land dedications for greenways are required for both residential and commercial development for those locations indicated in the Town's greenway master plan.

Impact Fees
Impact fees represent financial payments made to a local government by a developer to fund certain off-site capital improvements needed to accommodate future growth. Many communities impose impact fees for transportation, parks and recreation, and open space facility needs. The City of Durham imposes transportation impact fees to fund for a portion of the costs for new streets and sidewalks, paving, grading, resurfacing, and widening of existing streets, traffic control signals and markings, lighting, and crosswalks. The City's development fees for open space

and parks and recreation are used for the acquisition of park land and the provision of facilities, including athletic fields, parks, playgrounds, courts, recreation centers, shelters, stadiums, arenas, swimming pools, lighting, trail construction, and bike paths.

Capital Improvement Program (CIP)

A Capital Improvement Program (CIP) is one element in a municipality's long-term planning process. It is a bridge between the municipality's Comprehensive Plan and short-term planning for infrastructure and operations. A Capital Improvement Program analyzes major facility and equipment needs, establishes priorities, estimates fiscal resources, and schedules the development of funded projects. The City of Raleigh funds parks, greenways, and active transportation facilities through the city's Capital Improvement Program. The Parks, Recreation and Cultural Resources Department's CIP primary sources of funding come from Parks and Recreation Bonds, Facility Fees, General Fund (Tax Base), grants, and donations.

Municipal Service Districts (MSD)

Municipal Service Districts provide an equitable method for funding special improvements to public right-of-way areas because property owners share in the cost. The Town of Morrisville uses Municipal Service Districts in several neighborhoods to perform pavement, curb and gutter, and sidewalk enhancements and repairs on the public streets throughout neighborhoods in the MSD.

Public/Private Partnerships

The City of Greensboro is leading North Carolina in leveraging public-private partnerships to complete their Downtown Greenway Loop. Through the Action Greensboro Foundation, the project has raised over $10 M in private funds by working with foundations and private givers. This money leverages over $21 M in local and federal funds.

Private Funding

North Carolina Land Trust Conservancies

North Carolina land trusts partner with landowners and local communities to permanently protect natural resources with agricultural, cultural, recreational, ecological, and scenic value across the state. In Watauga County, the Blue Ridge Conservancy is leading the effort to develop the Middle Fork Greenway along the Middle Fork New River to connect Boone and Blowing Rock via trail. The Blue Ridge Conservancy has purchased property and easements along the Middle Fork New River to preserve the corridor and develop the greenway in partnership with Watauga County, the Town of Blowing Rock, and the Town of Boone. The conservancy is also leading planning, design, and construction of each phase of the greenway's development.

› Provided below is a list of Land Trusts & Conservation Organizations in North Carolina:
› Conservation Trust for North Carolina
› Blue Ridge Conservancy
› Carolina Mountain Land Conservancy
› Catawba Lands Conservancy
› Davidson Lands Conservancy
› Eno River Association
› Foothills Conservancy of North Carolina
› Land Trust for Central North Carolina
› Land Trust for the Little Tennessee
› National Committee for the New River

› NC Coastal Land Trust
› Tar River Land Conservancy

https://www.presnc.org/nc-land-trusts-conservation-organizations/

North Carolina Community Foundation (NCCF)

The NCCF is the statewide community foundation serving North Carolina and sustains more than 1,200 endowments established to provide long-term support of a broad range of community needs, nonprofit organizations, institutions, and scholarships. The NCCF partners with a network of affiliate foundations to provide local resource allocation and community assistance across the state. NCCF's community grant-making programs are advised by its network of affiliate foundations. Each affiliate is advised by a local board who help to assemble resources through their unique knowledge and understanding of local needs and opportunities. Organizations must be qualified as tax-exempt public charities under Section 501(c) (3) of the Internal Revenue Code or be classified as a unit of local government or public school.

https://www.nccommunityfoundation.org/apply/grants

Golden Leaf Foundation

The Golden LEAF Foundation is a nonprofit organization established in 1999 to receive a portion of North Carolina's funding received from the 1998 Master Settlement Agreement with cigarette manufacturers. Golden LEAF works to increase economic opportunity in North Carolina's rural and tobacco-dependent communities through leadership in grantmaking, collaboration, innovation, and stewardship as an independent and perpetual foundation. Golden LEAF's grantmaking focuses on the following priorities: Job creation and economic investment; workforce preparedness; agriculture; and community competitiveness, capacity, and vitality. Golden LEAF has two standard programs open to eligible entities seeking grants: Open Grants Program and Economic Catalyst Program. These programs complement other ongoing initiatives of the Foundation, such as the Community-Based Grants Initiative.

Open Grants Program: The Open Grants Program is open to all governmental entities and 501(c)(3) organizations that propose projects in Golden LEAF's priority areas. This program funds economic development projects aligned with the Golden LEAF priority areas. Most awards will be for $200,000 or less.

Economic Catalyst Program: The Economic Catalyst process is open to governmental entities and 501(c)(3) organizations with projects that will create jobs at risk without Golden LEAF funding. Grants include funds for public infrastructure, job training, upfit for buildings owned by governmental or nonprofit entities, or equipment acquisition where the building or equipment will be leased or sold at fair-market value to a company creating jobs. Grants are available only for projects that include a specific company's commitment to create full-time jobs in NC. Community-Based Grants Initiative: Each year, the Golden LEAF Foundation invites organizations from counties from a different Prosperity Zone to participate in the Community-Based Grant Initiative (CBGI). The process is competitive, but organizations from all counties within the Prosperity Zone will have an opportunity to apply. The CBGI is designed to identify projects with the potential to have a significant impact. It is a focused process with grants targeted toward investments in the building blocks of economic growth. Funds are limited to projects that address economic development, agriculture, workforce preparedness, infrastructure, and capital costs necessary to create health care jobs. County managers serve a key role in the process. Each county manager will submit a slate of up to four projects for consideration. Applicants must be 501(c)(3) organizations or governmental entities (county and municipal governments, community colleges, universities, etc.) Funds do not have to be administered

or implemented by the county government. Awards are limited to no more than three projects per county and will total no more than $1.5 million per county.

https://www.goldenleaf.org/

The Conservation Fund

The Conservation Fund works with public, private, and nonprofit partners to protect land and water resources through land acquisition, sustainable community and economic development, and leadership training. The City of Durham partnered with the Conservation Fund to assist with negotiations to purchase the Durham Belt Line rail corridor from Norfolk Southern to convert the rail line into an urban trail. In 2017 the Conservation Fund successfully purchased the property as the interim owner while the city secured the necessary funding. The property was transferred to the City of Durham in 2018, which allowed for the rail-trail's development.

https://www.conservationfund.org/where-we-work/north-carolina

Blue Cross Blue Shield of North Carolina Foundation

The Blue Cross Blue Shield of North Carolina Foundation funds a range of programs from targeted, mini grants to multi-year partnerships. Their grantmaking supports initiatives that focus on early childhood, healthy communities, healthy food, and oral health. The Foundation does not operate regular grant cycles. Instead, the Foundation invites applications based on specific strategic objectives or announces broader opportunities to apply for funding on a periodic basis.

https://www.bcbsncfoundation.org/grants-programs/grantmaking-overview/

National Association of Realtors Smart Growth and Place-making Grants

The National Association of Realtors (NAR) funds place-making and smart growth grants to make communities better places to live by transforming unused or underutilized sites into welcoming destinations accessible to everyone in a community.

Smart Growth Grants: Smart Growth Grants fund efforts to engage in local land-use, growth, and transportation policy issues with other stakeholders and elected officials. Eligible projects include Better Block events, place-making visioning processes, charettes, pop-up workshops, project mock-ups, developer open houses, public open houses, utility roundtables, Main Street analysis, walkable community workshops/audits, assistance with updating land use ordinances and codes and community plans, and hosting conferences and webinars. Applications can only be submitted by a state or local REALTOR® association, and grants provide up to $5,000 per award.

Place-making Grants: Place-making Grants fund the creation of new, outdoor public spaces and destinations in a community. Funds can be used for amenities such as street furniture, paint, signage, materials, landscaping, murals, site preparation, and artist fees. Applications can only be submitted by a state or local REALTOR® association, and grants provide up to $5,000 per award.

https://realtorparty.realtor/community-outreach/

AARP Community Challenge Grant

The AARP Community Challenge provides small grants to fund quick-action projects that can help communities become more livable for people of all ages. Applications are accepted for projects to improve public spaces, housing, transportation, civic engagement, coronavirus recovery, diversity, and inclusion, and more. Project types include those that provide permanent physical improvements in the community, temporary demonstrations that lead to long-term change, and innovative programming or services. The program is open to 501(C)(3), 501(C)(4) and 501(c)(6) nonprofits and government entities. Grants can range from several hundred dollars for smaller, short-term activities to several thousand or tens of thousands of dollars for larger projects.
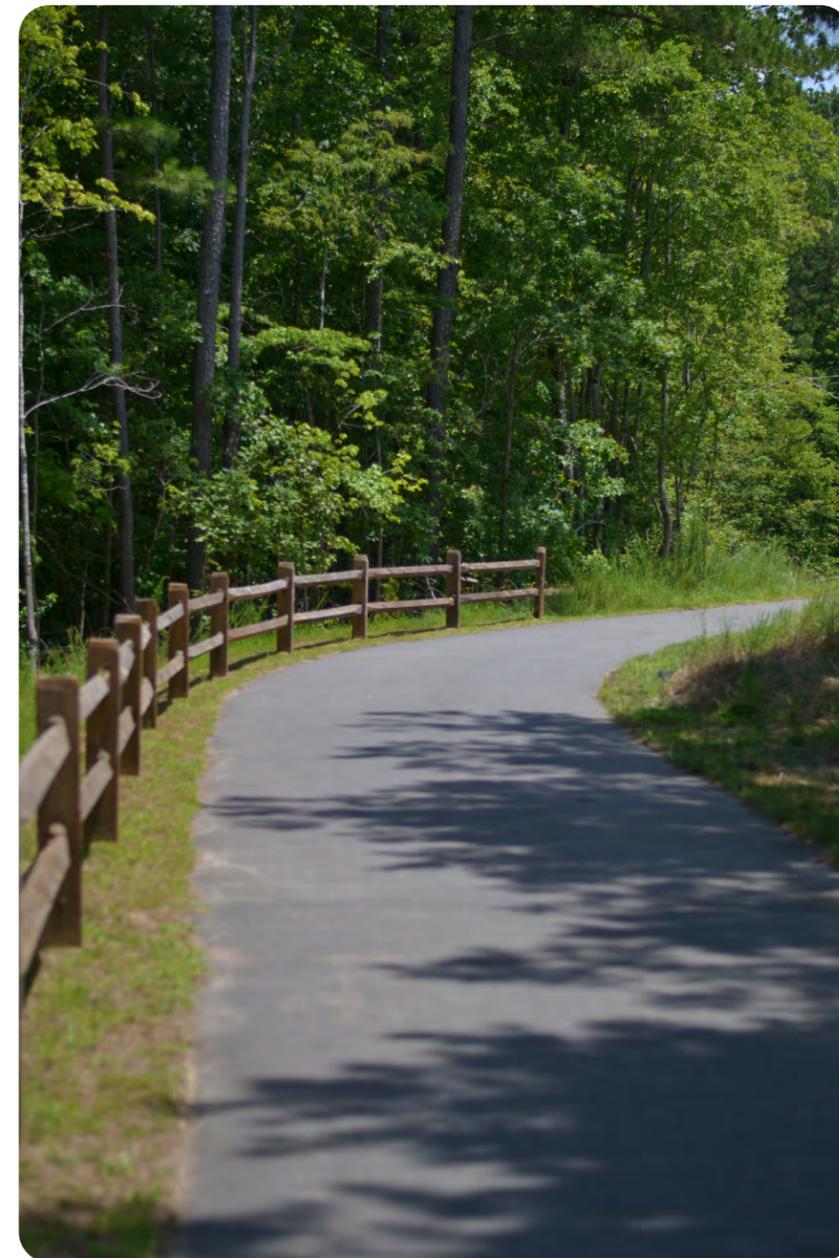
https://www.aarp.org/livable-communities/community-challenge/

Figure 12.56- Middle Creek Greenway

APPENDIX B: GREENWAY DESIGN RESOURCES

Below are several design resources that can be used to inform greenway and side path design decisions. Organizations such as Federal Highway Administration (FHWA), American Association of State Highway and Transportation Officials (AASHTO), National Association of City Transportation Officials (NACTO), and North Carolina Department of Transportation (NCDOT) offer general guidelines and project-specific tools to help professionals make design decisions. These guidelines promote flexibility to ensure context-sensitive applications.

AASHTO Guide for the Development of Bicycle Facilities

The AASHTO Guide for the Development of Bicycle Facilities is the authoritative national standard for bikeway design. The document provides guidance to designers and planners by referencing a recommended range of design values and describing alternative design approaches. The guide provides information on how to accommodate bicycle travel and operations in most environments. Sufficient flexibility is permitted to encourage designs that are sensitive to local context and incorporate the needs of bicyclists, pedestrians, and motorists.
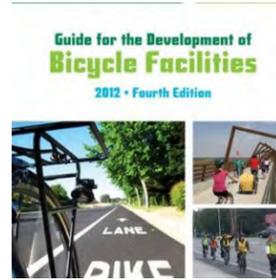
AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities

The AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities provides guidance for pedestrian facilities along streets and highways. The primary audiences for this manual are planners, roadway designers, and transportation engineers, whom make decisions on a daily basis that affect pedestrians. The guide focuses on identifying effective measures for accommodating pedestrians on public rights-of-way, and it recognizes the effect that land use planning and site design have on pedestrian mobility and addresses these topics as well.
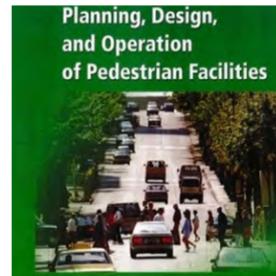
Manual on Uniform Traffic Control Devices (MUTCD)

The Manual on Uniform Traffic Control Devices for Streets and Highways, or MUTCD defines the standards used by road managers nationwide to install and maintain traffic control devices on all public streets, highways, bike-ways, and private roads open to public travel. The MUTCD is published by the Federal Highway Administration (FHWA) and is a compilation of national standards for all traffic control devices, including road markings, roadway signs, and traffic signals.

NCDOT Roadway Design Guide

The North Carolina Department of Transportation (NCDOT) Roadway Design Guide defines standards for roadways owned and maintained by NCDOT, including typical sections for roadways. Typical sections establish design elements that emphasize safety, mobility, complete streets, and accessibility for multiple modes of travel. Typical sections also provide guidelines for comprehensive transportation planning, project planning, and project design activities.

NCDOT Complete Streets Implementation Guidance

The North Carolina Department of Transportation (NCDOT) Complete Streets Implementation Guide is designed to assist NCDOT staff engineers, project managers and designers in implementing the Complete Streets Policy adopted by the Board of Transportation in August 2019. This document provides comprehensive guidance for incorporating a complete streets approach into NCDOT's planning, programming, design, and maintenance processes.
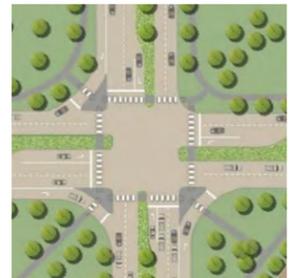
Pennsylvania Trail Design + Development Principles: Guideline for Sustainable, Non-Motorized Trails

This document compiles the best practices and guidelines for the planning, design, construction, and management of trails. Techniques are presented for developing trails that create desirable and enjoyable experiences for trail users. These techniques employ sustainable design elements and construction practices that allow the trail to make use of natural systems so that the trail remains both physically and environmentally sustainable.
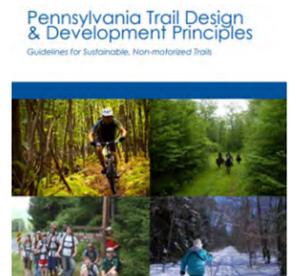
NACTO Urban Streets Design Guide

The Urban Street Design Guide charts the principles and practices of the nation's foremost engineers, planners, and designers working in cities today. A blueprint for designing 21st century streets, the guide unveils the toolbox, and the tactics cities use to make streets safer, more livable, and more economically vibrant. The Guide outlines both a clear vision for complete streets and a basic road map for how to bring them to fruition.
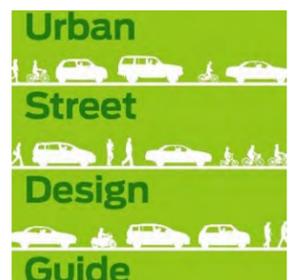
NACTO Urban Street Storm water Guide

The Urban Street Storm water Guide advances the discussion about how to design and construct sustainable streets. The guide provides cities with national best practices for sustainable storm water management in the public right-of-way, including core principles about the purpose of streets, strategies for building inter-departmental partnerships around sustainable infrastructure, technical design details for siting and building bioretention facilities, and a visual language for communicating the benefits of such projects. The guide sheds light on effective policy and programmatic approaches to starting and scaling up green infrastructure, provides insight on innovative street design strategies, and proposes a framework for measuring performance of streets comprehensively.
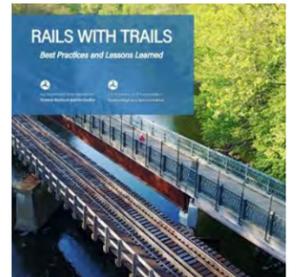
FHWA Small Town + Rural Multi-modal Networks

The Federal Highway Administration (FHWA) Small Town and Rural Multi-modal Networks applies existing national design guidelines in a rural setting and highlights small town and rural case studies. It addresses challenges that are specific to rural areas and focuses on opportunities to make improvements despite the geographic, fiscal, and other challenges that many rural communities face. It also includes several design concepts applicable to National Scenic and Historic Trails.

Best Practices in Trail Maintenance: A Manual by the Ohio River Greenway

This manual is intended for practical use by trail maintenance managers. It will also be useful for policy makers who are tasked with anticipating and planning for maintenance budget and personnel needs. The recommendations included in this manual were chosen, in part, to facilitate widespread adoption by other trail operators. They are cost-effective solutions that require minimal technological or financial commitments. This manual also provides guidance for trail construction and design where a maintenance issue can best be resolved by constructing new trail segments.

FHWA Achieving Multi-modal Networks: Applying Design Flexibility and Reducing Conflicts

This publication is resource for practitioners seeking to build multi-modal transportation networks. It highlights ways that planners and designers can apply the design flexibility found in current national design guidance to address common roadway design challenges and barriers. It focuses on reducing multi-modal conflicts and achieving connected networks so that walking and bicycling are safe, comfortable, and attractive options for people of all ages and abilities.
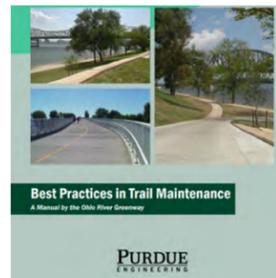
Rails to Trails Conservancy (RTC) Rails with Trails: Best Practices and Lessons Learned

This updated USDOT Rails-with-Trails: Lessons Learned report documents how the state of the practice, perspectives, and context for rails-with-trails have evolved since the first report in 2002 and includes updated effective practices. Best practices are based on extensive research into existing and planned rails-with-trails that involved interviews with railroad officials and trail managers; a literature review of previous rail-with-trail studies; a review of trail planning guidance documents; and input from various railroad and trail professionals.

ADA Standards for Accessible Design

This guide explains requirements in the current editions of the Americans with Disabilities Act (ADA) Standards issued by the Department of Justice (DOJ) and the Department of Transportation (DOT). It provides the scoping and technical requirements for new construction and alterations resulting from the adoption of revised 2010 Standards in the final rules for Title II and Title III.